UNIVERSITY OF GHANA, LEGON

DEPARTMENT OF INFORMATION STUDIES

ELECTRONIC TEACHING AND LEARNING BY DISTANCE EDUCATION STUDENTS AND LECTURERS: A CASE STUDY OF VALLEY VIEW UNIVERSITY (VVU)

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DECLARATION

I hereby declare that except for references to other works which have been duly acknowledged, this thesis is the result of my own work under the supervision of Prof. Edwin. E. Badu and Dr. Ebenezer Ankrah of the Department of Information Studies, University of Ghana, Legon and that this work has neither been submitted in whole nor part elsewhere for another degree.

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DEDICATION

This thesis is dedicated to my mother, Madam Akuah Bomfeh and my late father, Opanin Kwabena Sanda who did not live to reap the fruit of his toil. I am also indebted to my wife, Janet Akosuah Mansah and my children Theophilus Ameyaw, Eugene Somafare and Juanita Amma Bomfeh for their consistent prayers and unflinching support throughout my studies.

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Finally, I take full responsibility for all deficiencies, misinterpretation and weaknesses that may be identified in this work.

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LIST OF ABBREVIATIONS AND ACRONYMS

AU - Actual usage

AVU - African Virtual University

BI - Behavioural Intention

CADE - Centre for Adult and Distance Education

DE - Distance Education

E-learning - Electronic Learning

E-teaching - Electronic teaching

EE - Effort Expectancy

EIRs - Electronic information resources

ELAM - Electronic learning Acceptance Model

ERRs - Educational Reforms Recommendations

FC - Facilitating conditions

GTUC - Ghana Technology University College

ICSIT - Institute of Computer Science and Information Technology

ICT - Information and communication technology

ICT4D - Information and Communication Technology for Accelerated Development

IT - Information technology

JKUAT - Jomo Kenyatta University of Agriculture and Technology

KNUST - Kwame Nkrumah University of Science and technology

LMS - Learning management system

NAB - National Accreditation Board

OLFP - Online Learning Forum Platform

PE - Performance expectancy

S.D.A - Seventh –Day Adventist Church

SI - Social Influence

SPSS - Statistical Package for Social Sciences

UK - United Kingdom

VVU - Valley View University

ABSTRACT

The emergence and fast growth of the internet, as well as the proliferation of information and communication technology (ICT) facilities, have empowered academic institutions across the globe to adopt e-learning and teaching. The study was set up to assess e-learning and teaching by distance education students and lecturers of the Valley View University (VVU) Oyibi Campus in Accra, Ghana. The main objectives were to find out students and lecturers perceptions, attitude, perceived ease of use of e-learning and teaching, internal and external factors affecting e-learning at the VVU. For the researcher to accomplish these goals, a cross-sectional survey was adopted for the study. A self-developed questionnaire was used to collect data from the participants. The total population for the study was three hundred and eighty-four (384), this comprised two hundred and ninety-six (296) students and eighty-eight (88) lecturers.

The convenience sampling technique was used to sample one hundred and eighteen (118) students. The total population of the lecturers was eighty-eight (88), therefore, the entire population was used for the study. The Statistical Package for Social Sciences (SPSS, 17 Version) was used to analyze data. The findings of the study were presented in tables. The results of the study established that the majority of the students and lecturers preferred face-to-face learning to the online learning and teaching mode because they found it difficult to access information from the Online Learning Forum Platform (OLFP). The study also found out that distance students and lecturers found it difficult to upload and download information from the Online Learning Forum Platform (OLFP) due to poor internet services. The findings established that both students and lecturers found it difficult to access e-resources provided by the university from the Online Learning Forum Platform (OLFP), therefore, recommended for additional seminars, workshops, and orientations.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globally, education has become an important commodity to one's personal achievement as well as the development of a nation as a whole. It occupies a vital position in all circles of human endeavours. The unparalleled request for university degree over the previous decades has led to the introduction of Distance Education (DE) in some tertiary institutions in Ghana which Valley View University is no exception. The term Distance Education is a system of complete separation between students and lecturers in which learning materials are submitted through various means such as the print or electronic media to students who could not have the opportunity to attend the face-to-face formal education due to the poor financial status of parents/ family or tight schedule at the workplace. E-learning is not only useful for such group of individuals; it is also beneficial for the educational institutions that offer such services where adults are working. The benefits of e-learning include providing learning opportunities to all at a reduced cost and increased access to learning for disadvantaged groups due to geographical barriers (Jihad & Sondos, 2006).

Research study such as Engelbrecht (2003) has confirmed that students who have enrolled in the distance education through the adoption of e-learning will have equal opportunity to access the needed information from their lecturers since learning is determined by their own pace. Furthermore, e-learning has the potential to provide a high-quality education and training, producing a competitive workforce and increases the level of literacy among citizens (Engelbrecht, 2003).

Vasileios Kagklis et al., (2015) defined distance education as a form of education in which there is a constrained interaction between lecturers and students". Safiullin Lenara et al., (2014) indicated that distance learning is the independent form of education by using pedagogical technologies to design and implement remote courses for students.

Caruth and Caruth (2013) defined distance education as an instruction in which students are separated from instructors during their entire course of study. Distance education is characterized by lecturers, students and some of the time other facilitators imparting information with students through distinctive sorts of media (Nagar, 2010). Mnyanyi and Mbwette (2009) reiterated that "distance education is a learning process in which the teacher and the learner are separated in terms of space and time; communication between the two is mediated by print media or ICT; learning is under the control of the learner rather than the teacher.

The core objective of Valley View University (VVU) is to offer quality education hence, the need to introduce online education in order to admit all qualified applicants. This chapter highlights the background of the study, statement of the problem, the purpose of the study, objectives of the study, theoretical framework, and scope of the study, significance, research environment, ethical considerations and descriptions of chapters.

1.2 Statement of the problem

The use of e-learning in higher institutions to improve the delivery of materials to learners, helps lecturers to keep their lesson notes up-to-date, get in touch with students in a short possible time and communicate with one another as well. "E-learning technologies for teaching and learning help students to download learning materials submit assignments and collaborate with lecturers and colleagues (Abu-Shanab, 2014; Abdellatief et al., 2011; Piña, 2010).

The researcher's interaction with a staff at the Distance Education Department disclosed that some students and lecturers lacked adequate skills to use the Online Learning Forum Platform (OLFP) to access information despite the initial training they had from the Distance Education Department of the university. Another interview with the students revealed that the department lacks permanent information technology (IT) staff to support students and lecturers. Thus, lecturers' are not able to develop online courses on time and late submission of assignments and learning materials to students among others were enumerated by the students as some of the hindrances militating against the use of e-learning at the Valley View University (VVU).

Considering the numerous benefits of e-learning in other academic institutions elsewhere as mentioned above, the extent of e-learning use by lecturers and students in Valley View University (VVU) is below what one would expect.

Regrettably, management of VVU has invested heavily in the introduction of e-learning to enhance teaching and learning, but it appears that learners and lecturers are not comfortable with the use of the Online Learning Forum Platform (OLFP), while some lecturers are reluctant to send their courses and assignments to students through the Online Learning Forum Platform (OLFP).

Interestingly, there are a few related studies on this subject which were conducted elsewhere (Esterhuyse & Scholtz, 2015; McGill, Klobas & Renzi, 2014; Scholtz et al., 2014; Deng & Tavares, 2013; Zaharias, 2009; Minocha & Sharp, 2004; Edo, 2016; Emeji & Osuafor, 2015; Omoni & Ifeanyichukwu, 2015). In Ghana (Tagoe, 2012; Kwofie & Henten, 2011; Marfo &Okine, 2011; Dadzie, 2009; Awidi, 2008) have conducted similar studies on e-learning in

various public institutions in Ghana, but there is no similar study on e-teaching and learning by distance education students and lecturers in private universities.

It is against this background that the researcher wants to conduct this study to find out e-teaching and e-learning by distance education students and lecturers of the Valley View University and fill the vacuum created and also add literature to the body of knowledge.

1.3 Purpose of the study

The purpose of this study was to assess electronic teaching and learning by distance education students and lecturers of Valley View University.

1.4 Objective of the Study

The following were the specific objectives of the study:

1. To determine students and lecturers perception of e-learning and e-teaching at the Valley View University (VVU).
2. To find out the perceived ease of use of Online Learning Forum Platform (OLFP) by students' and lecturers'.
3. To ascertain students and lecturers attitude towards e-learning and teaching.
4. To determine internal factors that affected lecturers and students on e-learning and e- teaching
5. To find out external factors that affected lecturers and students on e-learning and e- teaching

1.5 Research Questions

1. What are the perceptions of students and lecturers towards e-learning and e-teaching at the Valley View University (VVU)?

2. How does the perceived ease of use of Online Learning Forum Platform (OLFP) affect students and lecturers?

3. What are the attitudes of students and lecturers towards e-learning and e-teaching at the Valley View University?

4. What are the internal factors that affect lecturers and students on e-learning and e- teaching?

5. What are the external factors that affect lecturers and students on e-learning and e- teaching?

1.6 Theoretical framework

The theoretical framework is referred to as a general theoretical system with assumptions, concepts and specific social theories (Neuman, 2011). A theoretical framework is a group of interconnected concepts that regulates what things to measure and what statistical relationships to search for in the study. In the views of Welman et al., (2005) a "theory as a statement or a collection of statements that specify the relationships between variables with a view to explaining phenomena such as human behaviour". In a similar definition, Babbie (2007) mentioned that theories are methodical groups of related statements planned to describe certain characteristics of social life. In order words, theories and models are used to shape the interest of answers to investigation questions as to why what and how things are happening (Reihl-Sisca, 1989 cited in Shikongo, 2010).

The E-learning Acceptance Model (ELAM) proposed by Umrani-Khan and Iyer (2009) was adopted for the study. Below is the diagram and a brief description of each factor in the model.

The first-factor **performance expectancy (PE):** is the degree to which the students and lecturers believe that using the system will bring" enhancement to their teaching and learning process.

These include:

i."Perceived usefulness refers to the extent to which lecturers and students believe that using e-learning will develop their academic performance, for example, higher achievement, adequate understanding, and effectiveness".

Effort Expectancy(EE) is the degree to which the student and lecturer perceive that e-learning technology requires effort.

i. "Perceived ease of use- refers to the extent to which the students anticipate that the technology will be free of effort. For instance, the effort required to use the system", seeing how the system works within the learning environment.

Social Influence(SI) is characterized by how lecturers and students "perceive a social pressure to use e-learning".

"Facilitating conditions (FC) is the extent to which both students and lecturers perceive that an institutional and technical infrastructure exists to support e-learning".

Behavioural intention **(BI**) - alludes to one's choice concerning future e-learning technology.

Actual usage **(AU**) refers to the "variety and frequency of using technology"

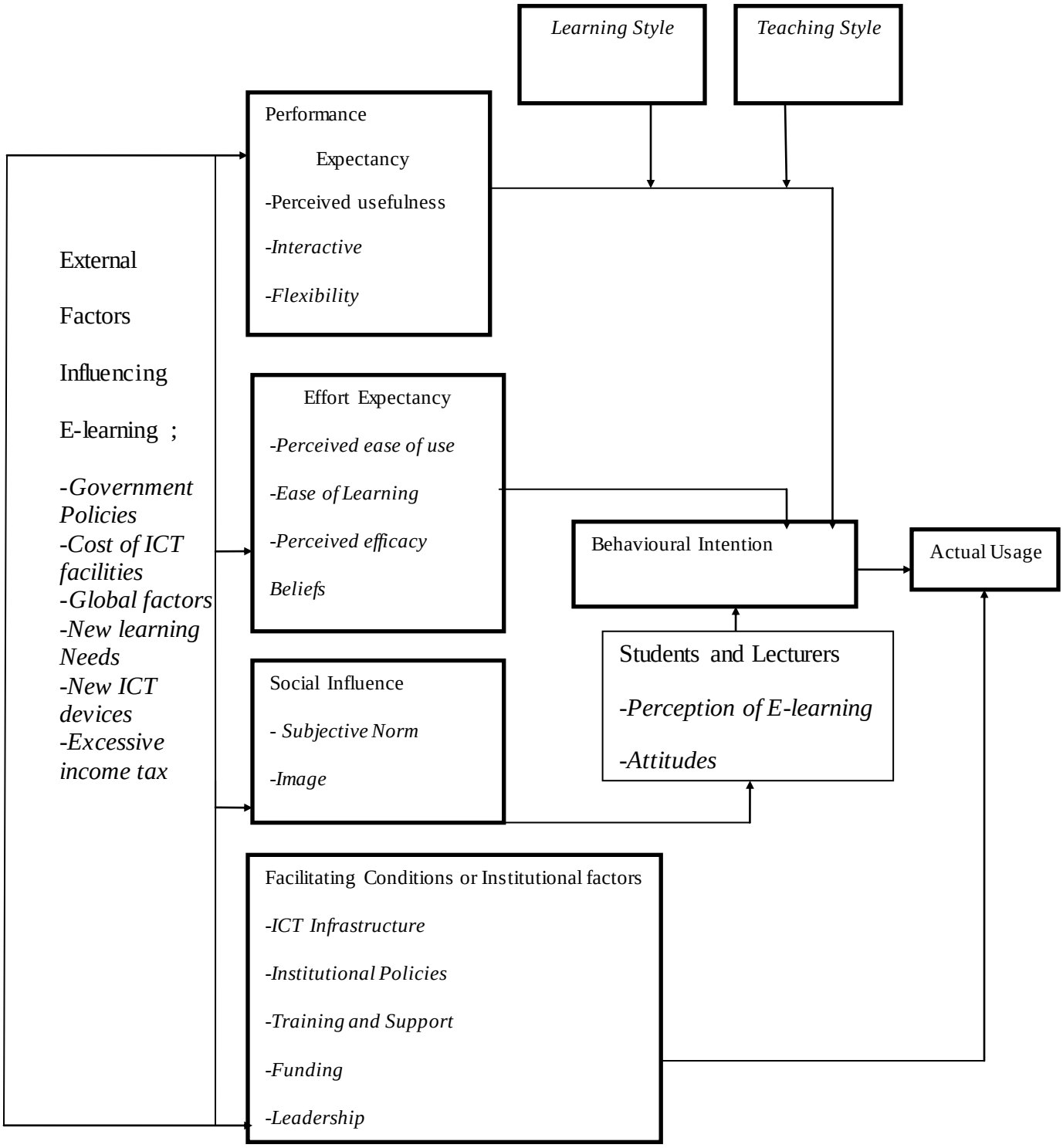

Figure 1: E-learning Acceptance Model (ELAM) adopted and modified from Umrani-Khan and Iyer (2009).

The "E-learning Acceptance model (ELAM) above portrays how the learning style of students and lecturers' teaching style affect the relationship between performance expectancy and behavioural intention to the use of e-learning". According to the modified model, behavioural intention, performance expectancy, social influence, facilitating conditions, internal and external factors are determining the actual usage of e-learning technology. "Performance expectancy is based on beliefs about perceived usefulness, interactivity and flexibility. Effort expectancy is based on beliefs about ease of learning, perceived ease of use and self-efficacy. Social influence is based on subjective norm and image, institutional support plays a crucial role in the acceptance of e-learning as well as facilitating conditions as one of the determinants of e-learning acceptance."

E-learning is related "with individualization of the teaching and learning process, the learning technique of the students and teaching method of the lecturers is a vital component influencing the acceptance of e-learning". The original ELAM did not highlight on external factors that affect e-learning by students and lectures. In view of this, the present study considers external factors, attitude, students and lecturers perception on e-learning to address the problems that impede the maximum use of e-learning. The ELAM was modified to envisage the use of e-teaching and learning by the distance education students and lecturers of the Valley View University (VVU).

1.6.1 The Relevance of the Electronic Acceptance Model (ELAM) to the study

In a relationship to this study, the Electronic Acceptance Model (ELAM) was considered relevant to the study and therefore was adopted. The model identified all the key variables in

order to discover the factors influencing e-learning and teaching by the students and lecturers of VVU. The ELAM model helped the researcher to establish the attributes involved in the study.

The external factors, "performance expectancy, effort expectancy, social influence, facilitating conditions, and behavioural intention were the" main variables identified to discover e-learning and teaching factors at the university. These variables were considered as the key conditions for a successful learning and teaching from the researchers' point of view of the distance education students and lecturers at Valley View University.

1.7 Scope of the Study

The study was limited to distance education students and lecturers of Valley View University Campus located in Oyibi, Accra. Although, there are other campuses but financial challenges, limited resources and time did not permit the researcher to extend the study to those campuses.

The justification for choosing Oyibi Campus is that it is the main campus of the university.

1.8 Significance of the Study

Woodwall (2012) reported that "the significance of a study concerns the usefulness of research and its added value to the existing body of knowledge or state of the art in the respective field of investigation". Creswell (2009) adds that the importance of a research study carries the significance of the problem for a different class of people that may benefit from using and reading the work.

The findings of the study would assist the university management on how to improve e-learning systems and also help the designers of e-learning to know how to customize the platforms to suit students and lecturers need.

It is also anticipated that the results of this study would help the university management to improve upon its e-learning infrastructure for the lecturers and students to have access to e-learning facilities.

The findings would also inform management of the university to re-organize training and seminars for lecturers and students which will finally help them to improve upon their current ICT skills. This research study will educate students and lecturers on the benefit of electronic learning and teaching, thereby, enhancing learning and research.

The results would serve students and lecturers as a motivational tool on the use of technology and also add literature to the body of "knowledge in the field of e-teaching and learning" in academic institutions. The results of the study would go beyond the Valley View University since policymakers in higher institutions in Ghana and elsewhere would find the findings useful in their planning and implementation of electronic learning and teaching in academic institutions.

The results of this study will assist the administrators of the university, especially the Centre for Adult and Distance Education (CADE) to recognize the key factors that inhibit the use of electronic learning at the university. The outcome of the study would help management to overcome problems associated with e-teaching and learning confronting lecturers and students.

1.9 Research Environment

1.9.1 Profile of Valley View University

The Valley View University is located at Oyibi, 31km from the city of Accra, and 13 km from Adenta, a suburb of Accra. It was founded in 1979 by the West African Union Mission of the Seventh – Day Adventist (now Ghana Union Conference). The National Accreditation Board

(Ghana) granted it national accreditation in 1995 thus, allowing the university to award her own degrees. Valley View University is the premier private university in Ghana to be granted a charter from the former President John Agyekum Kufuor in 2006 (VVU Academic Bulletin).

1.10 Organization of Chapters

The study was structured into six (6) chapters.

Chapter one of this study highlights the introduction, background of the study, statement of the problem, the purpose of the study, objectives of the study, scope/ limitations of the study, theoretical framework, significance of the study and description of chapters.

Chapter two is the review of the literature of closely related studies. It deals with the worldview, the African view, and the Ghanaian view of the research topic.

Chapter three concentrated on the methodology that was adopted for the study. It outlined the research design, selection of case, selection of subjects, population of the study, sampling, instrumentation and data collection.

Chapter four focuses on the data analysis and findings of the study.

Chapter five reports on the discussion of the major findings of the study.

Chapter six provides the summary of the findings, conclusion, and recommendations made from the findings of the study.

1.11 Chapter Summary

The chapter one of this study stressed, on the introduction, background of the study, statement of the problem, the purpose of the study, objectives of the study, scope/ limitations of the study,

theoretical framework, significance of the study, ethical consideration, description of the study as well as research environment.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature from studies that have been carried out already on the topic. Review of the literature offers a researcher the opportunity to explore the results of other studies that are largely related to the study being undertaken. A literature review is a gate for new ideas, approach as well as understanding about what to do relating to the researcher's topic. The section also reviewed relevant literature related to electronic learning and teaching from the worldview, the African and Ghanaian views of e-learning. Literature was also reviewed under the following subheadings:

1. Electronic- Learning and Teaching

2. Electronic Learning and Teaching in Africa

3. Distance education

4. Electronic- Learning and Teaching in Tertiary Institutions

5. Electronic- Learning and Teaching in Tertiary Institutions in Ghana

2.2 Electronic Learning and Teaching

E-learning is an "umbrella term that describes any type of learning that depends on electronic communication. It is a generic term covering a wide set of ICT technology-based applications and processes which includes; computer-based learning, web-based learning, virtual classrooms,

digital collaboration and networking (Hambrecht, 2000; Kaplan-Leiserson's online glossary, 2002)".

Keller et al., (2007 & Tarhini et al., 2016) added that e-learning is the use of Information and Communication Technology (ICT) to deliver information for education where instructors and learners are separated by distance, time, or both in order to enhance the learner's learning experience and performance. Arasteh, Pirahesh, Zakeri and Arasteh (2014); Draghici, Popescu , Fistis and Borca (2014); Mustea, Muresan and Herman, (2014) defined e-learning as the process which permits persons particularly learners to take courses from home or anywhere as he/she can access the internet, among other platforms such as peer-to-peer, client-server, and web services.

The word e-learning denotes to all ICTs, networks, internet and other forms of electronic media that can be used to enhance teaching and learning so as to transfer knowledge, skills or ability (Kasse & Balunywa, 2013). Similarly, a study on online learning indicated that 55% of the lecturers have adopted technology in all their teaching activities, while 37% of the lecturers use it frequently, and 18% of the lectures also expressed that they have never used technology in their teaching work (United States Department of Education, 2003).

Cavusa and Kanbulb (2010) added that the adoption of e-learning in academic institutions offers quick response during tests and assignments. The adoption of online learning has made education flexible that it allows learners and their teachers to gain access to a wide range of learning and teaching materials. It also reduces cost as students can access learning resources from a far distance without necessarily being in the lecture halls or being on the university campus.

The application of electronic devices such as the computer, video conferencing, audio, internet, interactive television and satellite in educational institutions these days have paved way for the incorporation of new ideas in the institutions of high learning (Hung & Cho, 2008). E-learning permits networking among students and lecturers to expedite communications and enhance the chance for linking various institutions to the world as learning is extending beyond the physical lecture halls/rooms (Dotimi and Hamilton-Ekeke, 2013). Most of the institutions of higher learning and a significant number of universities today, around the globe are investing heavily to equip themselves with e-learning tools to support their traditional learning and teaching because of its flexibility, low cost and convenience (Deng & Tavares, 2013; Esterhuyse &Scholtz, 2015).

2.2.1 Historical Background of Electronic Learning (E-learning)

The history of online or electronic-learning (e-learning) is not certain; it has been said that the word online or e-learning originated in the 1980s (Moore, Dickson-Deane & Galyen, 2011).

E-learning is often used interchangeably as online learning, open and distance learning (ODL), web-based learning or electronic learning that utilizes electronic communication for teaching and learning (Oztekin, Delen, Turkyilmaz & Zaim, 2013). The root of e-learning may be traced from the mailing system of learning by Sir Isaac Pitman. Sir Isaac Pitman introduced distance education courses through mailing courses with the use of the shorthand technique to teach, send, and receive feedback from his students in 1840. Afterward, in 1980, the acquisition of individual computers in academic institutions paved the way for e-learning. "Computer-based training's pioneer system known as Programmed Logic for Automatic Teaching Operation (PLATO) also started in 1960 with the basic layout that is used in modern e-learning method consisting of graphic elements, text, forums and chat rooms (Shimura, 2006)". The fast development of the

internet as well as the abundance of personal computers in the late twentieth century (20th century), gave rise to the e-learning idea in an academic institution today. The first web-based learning management system (LMS) named Cecil was launched in 1996 (Sheridan, et al, 2002). This learning management system (LMS) is a software application that manages documents, records and distributes e-learning courses. Presently, the present-day learning management system (LMS) are primarily web-based and empower facilitating or conveying of distinctive sorts of learning content but not restricted to learning resources such as, "video, and audio, wikis, web conferencing, chats, gatherings, blogs, learning recreations, testing, evaluating".

The advancement of the internet has also brought a new learning method age known as mobile learning (M-learning). Mobile phones, smartphones, palmtops, handheld computers, tablet PCs, laptops and media players are the main tools that facilitate the adoption of e-learning as well as e- teaching in higher educational institutions (Kukulska-Hulme, 2005)

The introduction and implementation of online/e-learning in an academic institution today is developing gradually due to its benefit to students, lecturers, as well as the institution. A research study has proven that, since 2011, an online /e-learning website known as Udemy had recorded about 100,000 learners for an online study (Joseph & Nath, 2013). The study of Shah (2015) also buttressed that since 2015, about 35 million learners registered for different programmes, followed by 4200 who were offered admission into various disciplines in more than 500 universities around the world currently.

2.3 Electronic Learning and Teaching in Africa

The African Virtual University (AVU) was built up in 1997 and headquartered in Nairobi, Kenya. The key objective of AVU is to provide quality and reasonable instruction which is

available to the general public. The AVU was piloted in 1997 and offering courses in degree and certificate programmes including computer science and business administration to sub-Saharan students in Africa. The African Virtual University (AVU) began with 57 learning centres in 27 African countries (Simmons, Mbarika, Mbarika, Thomas, Tsuma.Wade & Wilkerson, 2011). The University of Ghana was one of the pioneering institutions that established AVU learning centres to improve distance learning programmes in Ghana (Kumi-Yeboah, 2010).

The introduction of online learning and teaching into the distance education system has made a key stride in the developed nations. Unfortunately, the same cannot be said of the Africa continent where universities are running under limited resources, let alone for individual students to own their personal computers. The influence of the digital divide is still dominating in the majority of the universities on the Africa continent. A number of universities across the globe today are confronted with numerous challenges in the adoption of e-learning system. The majority of the academic institutions in Africa are slacking behind the adoption of online e-learning and teaching.

In spite of "e-learning's potential to meet Africa's educational and labour needs, unreliable power supply, poor ICT facilities, lack of adequate funds and lack of professionals have combined to impede the development of e-learning in universities on the Africa continent".

Therefore, Africa has a small chance of utilizing e-learning in this fast-evolving information society (Oruame, 2008). The study of Ekundayo and Ekundayo (2009) listed some impeding factors that hinder e-learning development in Nigeria as difficult access to technology, poor internet connectivity, poor power system, and inadequate professionals to handle technological challenges as the major challenges inhibiting the successful adoption and implementation of e-

learning in the country. In a related study by Rytkønen and Rasmussen (2010) confirmed that since 2005 and 1997, the University of Nairobi, Kenya, and Makerere University, Uganda, were ahead of Sokoine University of Agriculture, Tanzania, in terms of e-learning adoption and implementation. Athoye (2013) carried out a study at the Africa Nazarene University in Kenya revealed that 50 lecturers, as well as facilitators, have been given the desirable training on how to use the e-learning platform (e-Naz platform), while fresh students were given computer literacy training on how to search for online information. According to the study, Africa Nazarene University frequently holds some training programmes, workshops, and meetings to create awareness of e-learning technology among students and lecturers. In a related study carried out by Leary and Berge (2006), it was reported that hundred and fifty distance education learners in Sub-Saharan Africa preferred the traditional paper-based method of learning and teaching to technology method of acquiring knowledge. The study of Hadullo (2010) enumerated some factors that facilitated e-learning adoption in Kenyan universities as; awareness, benefits, quality of the course content, computer training, access to the internet, influence from lecturers and colleague students were instrumental for e-learning adoption by the students.

The lecturers also indicated training, institutional support, rewards, incentives, and recognition as factors that influenced their adoption. In the study of Frimpong (2012), it was asserted that video conferencing deployment, inaccessibility of bandwidth, and inadequate security were identified as some challenges impeding e-learning adoption and implementation in some African institutions. A similar study by Mavengere and Ruohonen (2010) reported five factors militating against e-learning management systems in African universities as lack of computer skills, inadequate computer facilities, cultural diversities, lack of human capital, lack of information technology staff (IT staff) and absence of institutional support.

Ghaznavi, Keikha, and Yaghoubi (2011) asserted that the adoption of online learning in higher institutions make the course easier for teachers, whereas the use of information and communication technology (ICT) in the educational curriculum has revolved the challenges in the classroom. "Collaboration networks that include e-learning sponsors, policymakers, telecommunication networks service providers and educators are required to solve the problems of online education in Africa (Gunga and Ricketts, 2006)."

Tim (2008) conducted a similar study on e-learning in Africa. The results of the study established that the adoption and implementation of the online learning in Africa is still in its earliest stages in most African nations. The study stressed further that the majority of the African countries have recognized the importance of online learning as a "medium for instruction and learning" in this 21st century. It is interesting to note that countries like Nigeria, Kenya, and South Africa are lacking behind in terms of infrastructural facilities for the successful implementation of e-learning (Olakulehin 2007; Tinio 2003). Dondi and Moretti (2007) recommended that lecturers need the full support of the administration and students' participation for an effective adoption of online learning.

2.4 Distance Education

The word distance education is a form of education where students and lecturers are geographically dispersed. The introduction of distance education system in some universities globally has relieved the burdens of those who could not have the opportunity to attend the regular classes due to a tight schedule at the workplace. Alfonso (2012) added that distance education is a form of education provision that use contemporary technologies to enable varied

combinations of synchronous and asynchronous communication among learners and educators who are physically separated from one another for part or all of the educational experience.

Distance education is a new method of education where lecturers, as well as the students, are in different places, teaching and learning is done by means of technological resources (Casarotti, Filliponi, Pieti & Sartori, 2002). The high demand for university degrees, coupled with high population rate globally, has become an albatross to the current and previous governments of nations on how to accommodate this population in the limited universities with limited facilities in both developed and developing the world. Haub and Gribble (2011) reported that the rise of population rate in underdeveloped nations is a result of uncontrollable birth rates. The attempt by different governments to offer adequate facilities in academic institutions for its people has been unsuccessful over the past decades. The cost of building new lecture halls, laboratories, students' hostels, and residential facilities for lecturers as well as attractive remuneration for teachers in answer to the fast rise in the educational request is a source of concern and a problem that governments have difficulty with (Ahmed, 2011).

2.4.1 The History of Distance Education

The origin of distance education can be traced back to the late 1800s by Sir Isaac Pittman. Sir Isaac Pittman set up a corresponding course study in England in the mid-1840s through mailing service to distribute teaching resources to his students in the form of "texts transcribed into shorthand on postcards and later receiving transcriptions from students in return for correction - the element of students' feedback was a crucial innovation of Pitman's system (Tait, 2014)". Students worked freely on study resources and interaction between lecturer and students was restricted to one-way communications. Within a few decades, correspondence courses were

generated and circulated in Germany, Canada, Australia, the Soviet Union, Japan, and the "United States of America" (Matthews, 1999). The "University of London was the first university to run distance learning degrees, setting up its External Programs Department in 1858 (Rothblatt, 1988)". The University of London was alluded to as "people's University by Charles Dickens" (a nineteenth-century English author and social critic) since it gave access to advanced tutoring to learners from less endowed families. The External Programs Department was commissioned by "Queen Victoria in 1858 at the University of London, making the University of London the premier institution to award degrees to distance" education students (University of London International Programs, 2014).

The advancement and rise of the internet has additionally advanced the utilization of the online channel as a medium for sending and accepting instructive materials and instructions between students and their lecturers. The rapid advancement of technology has manifested the greatest breakthrough in the history of distance education (Anderson & Dron, 2010).

Distance education became more popular through the application of the "telephone and/or audio recordings, television and/or video recordings, computer-assisted instruction group communications (asynchronous and synchronous) the Web and multimedia materials, simulation and gaming, collaborative learning; asynchronous learning networks; collaborative knowledge systems; immersive simulations; and wireless and handheld devices (Roxanna & Turoff, 2005)".

The fast growth of the information communication technologies (ICTs) today has offered academic institutions an opportunity to increase students' enrollment through the distance education system (Findik Coskuncay & Ozkan, 2013). Majority of high learning institutions

globally are currently revising their instruction methods to implement online learning and teaching system (Cigdem & Topcu, 2015).

2.4.2 The Background of Distance Education in Ghana

The tertiary sector of Ghana's education system is widely classified into public and private tertiary institutions. Either public or private tertiary institutions in Ghana admit students into any of their programmes differently. The public universities use the dual model and are heavily dependent on the print media while the private institutions are mostly dependent on the ICT (Government of Ghana, 2002). For every qualified applicant to acquire tertiary education in Ghana, the Modular Teacher Training Programme was introduced in 1982 mainly to upgrade unqualified teachers academically as well as professionally. The acceptance of Educational Reforms Recommendations (ERRs) gave rise to distance learning system in Ghana.

The University of Education, Winneba enrolled its first batch of distance students in 1996, while "University of Ghana and University of Cape Coast" started diploma programs through distance education in 2001/2002 in youth development work and basic education respectively (Hope & Guiton, 2005).

The Valley View University admitted its first batch of distance students in 2005 (VVU Annual Report, 2006). The main objectives of distance learning system in Ghana is to make education available and accessible to all qualified applicants, and also to serve the need of students as well as to improve their academic performance and finally to enhance their living conditions as well (Government of Ghana, 2002). At the end of the 2013 accrediting year, the tertiary education sector had about 170 private and public institutions. Nine out of these institutions were offering distance programmes; four were public while five were private. "As at March 2016, the number

of tertiary institutions offering distance education was eight. This includes four public and four private institutions. While public participation remained the same, private institutions reduced from five to four (National Accreditation Board (NAB, 2013; 2016)".

2.4.3 Perceived Ease of Use of E-Learning and Teaching

The use of the Online Learning Forum Platform (OLFP) by learners and teachers of the Valley View University (VVU) should not be difficult in its usage, in other words, lecturers and students should feel at ease without any extra effort from the external or internal concerning the use of Online Learning Forum Platform (OLFP). The study of Abbad et al (2009) indicated that the adoption of the online method of teaching and learning in the distance learning system is recommended as a significant tool that will enhance learning and bring numerous benefits to teachers as well as students. In this sense, lecturers are not required to meet students face-to-face before imparting knowledge to students in lecture halls. According to Abbad et al (2009) reported that students who see e-learning as a self-learning medium are expected to embrace it for their learning without any challenges. Fuller, Robert, and Brown (2006) reported that there should be constant interaction and communication between students and lecturers through the e-learning platform in the e-learning environment for students to share their views with lecturers.

The study of Paiva (2010) reported that the development of e-learning platforms had enhanced collaboration and communication between students and lecturers, and also contributes to knowledge sharing among learners and lecturers. In a related study conducted by Ajala, et al., (2010) at the Ladoke Akintola University of Technology in Nigeria hinted that some lecturers' perceived online materials as tools that have influenced positively on their research activities.

A similar study by Mahmod, Dahlan, Ramayah, Karia, and Asaari (2005; Lee, Cheung, & Chen, 2005) established that the perceived usefulness and perceived satisfaction are exceptionally critical for the implementation of e-learning applications by students. Venkatesh (2000) suggested that the perceived ease of use of a new technology is the extent to which a person considers that the adoption of the new system will be easy to use without applying any effort or without any challenges. This implies that the new system should be effort free for learners and lecturers. In another study by Mukiri (2011) asserted that half of the lecturers in Jomo Kenyatta University of Agriculture and Technology (JKUAT) asserted that learning to teach online was easy while the other half expressed that it was not easy. In the same study, respondents from the "Institute of Computer Science and Information Technology (ICSIT)" were the significant amount of respondents who acknowledged that they found it easy to use the e-learning system.

Another study by Azubogu and Madu (2007) found out that the confidence level of the lecturers was high in terms of information technology usage, this confidence was accredited to flexibility of the new system, convenience and free access to the online resources or information were identified as the factors that influenced lecturers confidence level in their adoption of the new system. Ease of use of electronic resources allows users to accomplish their information responsibilities and finalize their assignments effectively. Systems that are easy to use without much effort, also limit the time that users spend when using it (Tsakonas & Papatheosorou, 2006). Tsakonas and Papatheosorou (2006) added that acceptability influence the use of a given system in an effective and satisfactory way.

Saadé (2007) posited that any e-learning platform that is flexible and easy to use offers the necessary services that can support learning, and also permit the learner to remain focus on using

it to accomplish the intended purpose instead of putting much energy and time to study its use. Frimpong (2012) contended that the concept of online learning is not about designing online courses per se rather, the proposed concept should be useful and easy to use by learners and teachers who are the main patrons of the system. Li (2014) established that even though lecturers had various qualities and abilities towards the online learning and teaching, yet, their confidence level is not high to use technology in their lecture rooms. Jeyaraj, Rottman, and Lacity (2006) highlighted in their study that perceived ease of use has been identified as one of the most commonly accepted predictors in e-learning use. According to Sun, et al., (2008) effortlessness of the use of online devices may stimulate students and lecturers attitudes towards online devices and further motivate their belief, intention, and behaviours towards the new technology.

The study of Tao (2008) indicated that a good system is the one that allows students and lecturers to access information and also to accomplish their academic tasks without exerting much effort in its usage is perceived to be a good and useful system. A related study by Leong (2007) stressed that distance education students should also have access to electronic resources since they are part of the university system and that access to e-resources should not be limited to only students in the regular system. A new technology should be easy to use by distance learners without much effort. Additionally, a study carried out by Aramide and Bolarinwa (2010) disclosed that distance students have access to audiovisual and electronic resources, and they used them frequently for their assignments and research purpose because of ease of use.

Ong and Lai (2006) established in their study that perceived ease of use had a critical impact on the behavioral intention of students to use e-learning. Therefore, perceived ease of use in e-learning might also impact lecturers' intention to accept the e-learning system. Lee, Yoon, and

Lee (2009) perceived the design of learning contents as being positively connected to the perceived ease of use of the system. Additionally, the administration should effectively maintain and enhance the responsiveness of lecturers to students' request. In a study conducted by Al-Harbi (2010), perceived ease of use of a system affects attitudes significantly. Results from other studies also indicated that e-learning system with a user-friendly interface and features can maximize its adoption as well as usage (Abdel-Wahab, 2008; Al-Ammary & Hamad, 2008; Johnson et al., 2008; Presley and Presley, 2009; Wang and Wang, 2009; Chen & Tseng, 2012). Chang, Yan, and Tseng (2012) supported the previous studies that the flexibility of a new system has no direct impact on the individual intention to accept mobile technology for the learning of the English language. Zewayed, Maynard and Murray (2011) reported that the flexibility and simplicity of a new technology were perceived to be an ingredient that stimulates learners and lecturers intention to use the system because it does not need any much computer competencies and abilities. The study of Al-Ammary and Hamad (2008) identified content quality as a key factor affecting the adoption and use of the e-learning at the University of Bahrain. The study stressed that the quality of online course content impact learners perceived usefulness as well as perceived ease of use of the system. The findings of Van Raaij and Schepers (2008) indicated that computer nervousness has the negative influence on perceived ease of use of e-learning systems. The study of Yoon and Kim (2007) highlighted that students and lecturers with the positive state of mind found it easy to use the e-learning platform for teaching and learning. Oproiua (2014) carried out a study at the University Politehnica of Bucharest. According to the findings, out of 100 respondents, 45% of them indicated that they have never use the e-learning platform in any of their activities, followed by 28% and 18% who use the platform quite rarely and once in a week respectively.

2.5 Electronic Learning and Teaching in Tertiary Institutions

The emergence of the internet and the uncontrollable flow of information have impacted all the spheres of human life such as political, economic, and socio-cultural environments and educational institutions are no exception since they are also dancing to the tune of this new trend. Mahdizadeh, Biemans, and Mulder (2008) indicated that e-learning has a tendency to stimulate students and lecturers which consequently build students cooperation and communications inside the classroom. The key advantages of e-learning are cost-saving and efficiency (Aczel et al., 2008; Naidu, 2003). The introduction of online learning and teaching in academic institutions currently has increased the rate of interaction between learners and teachers and also improves students' performance as well. (Cavus & Momani, 2009). The adoption and development of e-learning into distance education system can influence students and lecturers to gain access to free information that is far and near, and also help lecturers to present information in various approaches to students (Higgins, 2003). The need to incorporate e-learning technological devices into teaching and learning in the distance education mode is a necessity, especially in Africa where lecturers are frequently struggling with the huge student population in lecture halls. A related study carried out by Gulbahar and Guven (2008) confirmed that presently, the majority of lecturers still prefer traditional materials in their teaching, to online teaching resources, for instance, "overhead projectors, television/video, radio cassette recorder, multimedia, computers and slide projectors for instructional" purposes.

2.5.1 Lecturers' and Students' Perception of E-learning

Students and lecturers' educational background, age, as well as their cultural background, have either a negative or positive effect on their perception of the adoption of the online learning

system. The Oxford dictionary (2013) defined perception as the ability to see, hear, or become aware of something or situation. The study of Bigelow (1999; Salmon, 2000) reported that the absence of interaction, students inability to communicate with their colleagues as well as lecturers, tight work schedule and social challenges are the main factors hampering students' academic performance. Al-Fahad (2009) took a study to find out learners attitude towards mobile learning. According to the students they have access to the online learning resources through wireless connectivity regardless of their geographical locations. The students went further that the accessibility of online resources has improved their academic performance.

According to Zhao (2007) claimed that the tools that support and facilitate e-learning and teaching are overhead projector, television, video cassette recorder as well as computers. The study affirmed that a quite number of the lecturers used power point demonstrations for their lessons, while others also relied on Microsoft Word to conveyed information from the computer via the television screen.

Djajalaksana (2011) added that e-learning has provided learners with the opportunity to interact with their lecturers at a time and anywhere. It has allowed them to put questions on the learning platform and get immediate feedback from the lecturers. The study by Makura (2014) reported that the use of ICT facilities by learners of the high institution has affected their academic performance positively in both academic and curricular matters. Studies carried out by Minocha and Sharp (2004; Zaharias,2009) on e-learning disclosed that faculty members and learners declined to use e-learning facilities due to inadequate skills, the absence of training, as well as negative perceptions towards the use of e-learning system.

Sahin and Shelley (2008) recommended that it is significant for lecturers to consider the perception and needs of students when designing and developing courses for distance students. Mohammed et al., (2012) disclosed that for the maximum use of Learning Management Systems (LMS) in an academic institution, it is significant for lecturers to know the levels of computer skills of their students before developing and designing online course content, in doing so will increase the maximum use of the new technology as well as performance.

Another study carried out in the UK by Ituma (2011) expressed that the majority of the students have positive perceptions towards e-learning system. According to the study, these positive perceptions have influenced them to use the online system regularly to support the conventional method of learning. Al-Dosari (2011) took a similar study on lecturers' and learners' perceptions of e-learning in King Khalid University, Saudi Arabia. The study reported that respondents have a positive perception regarding e-learning and that the adoption of online learning has enhanced students' performance as well as the lecturers as compared to the conventional method of learning and teaching. The study of Artino (2010) at the University of the Health Sciences; Bethesda, America hinted that the confidence level of online students was higher than their colleagues who were admitted into the traditional face-to-face method of learning. According to the study, online learners have broad knowledge in learning online courses and have also exhibited a high level of satisfaction towards e-learning facilities.

Interestingly, the study of Yang (2008) revealed that a significant number of lecturers are now shifting from the conventional mode of teaching to the modern way of teaching through the use of e-teaching facilities. Another study conducted by Christine (2007) opined that students have

positive perception towards e-learning. The study stressed that the perception of students has influenced them to use the online resources provided by the university.

The study of Mukiri, (2011) reported that only a few lecturers at Jomo Kenyatta University of Agriculture and Technology (JKUAT) used their own computers and modems for academic activities; while others were unwilling to use their own resources for teaching due to the absence of remuneration. Access to e-resources was key hindrances, with some lecturers without personal computers, coupled with difficulty to access information from the internet when they are in their offices. Tella, Tella, Ayeni, and Omoba (2007) were of the view that students in most cases constantly use the internet to access online information for their studies and this paves way for academic excellence. The findings of Amengor (2011) revealed that 95.6 % of the respondents admitted that the application of ICT facilities in the classroom has influenced their teaching; another 80.6 % acknowledged that ICT has helped them to meet students' demands, while 85.1% reported that the use of ICT facilities has enhanced their teaching performance. Wu and Chen (2012) reported that 70% to 95% of the respondents use the NTC electronic resource for their academic work. According to the study, this positive perception of the students towards the e-resources has enhanced their studies as well as academic performance. Nwezeh (2010) took a study at Obafemi Awolowo University, Nigeria, to assess the effect of internet use by students and lecturers. According to the study, respondents perceived online materials as influential tools for learning and research work.

MacDonald and Thompson (2005) indicated in their study that teaching, learning, seminars, and conferences are still carrying out through the face-to-face method in the developing countries; therefore, they perceived online activities as being inferior, even at the academic institutions.

In a related study by Sethi and Panda (2012) at the Sambalpur University established that about 92.18 % of the respondents admitted that they preferred using online materials to print documents in spite of challenges that they faced in their usage.

In the study of Kumar and Kumar (2008), the results established that 70% of the participants use online materials to support their learning, while 59% use e-learning resources for teaching. According to the study, one-third of the respondents use e-learning resources for their thesis work, another 88% of the respondents accessed the online resources to support their studies, followed by 67% respondents from engineering department and management studies 55% respectively. Osika, Johnson, and Buteau (2009) pointed out that students' perception, ability, and skills towards the use of e-learning can be a hindrance to the new system of adoption and implementation. Zhao and LeAnn-Bryant (2006) opined that the use of technology relies on the person's perception towards technology. They stressed that one may have the abilities and the searching skills in the use of technology, but if the individual failed to accept technology as an effective learning device, that person will continue to stay away from using it. For the survival and improvement of online learning in an academic institution, both students and lecturers are expected to have positive perceptions of the adoption of the new system (Zhao & LeAnna-Bryant, 2006). James (2008) carried out a study in Bangkok University and the findings established that 68% of lecturers perceived cost-reduction as a key factor while 18% reported that ICTs helped them in handling a huge number of students. Another 45% of the lecturers mentioned that it improves their teaching and also serves as a driving force while 31% indicated that the use of e-learning in teaching encourages the student to remain focused in their learning. The findings of Jamlan (2004) showed that lecturers perceived e- teaching as a good catalyst that helps learners and lecturers to accomplish their learning objectives.

The study of Fozdar and Kumar (2007) revealed that online teaching and learning has bridged the gap between teachers and their learners, and this has made teaching and learning flexible since students can interact with their lecturers at any time and any place without moving from one geographical area to another geographical area.

2.5.2 Students' and Lecturers' Attitude towards E-learning

The word attitude plays a significant role in all spheres of human activity, educational, political, economic and socio-cultural. The influence of attitude in human activities cannot be underestimated since it is used to identifying and explaining human behaviour.

Alkhanak and Azmi (2011) defined attitudes as evaluated beliefs which predispose the individual to respond in a preferential way. It is a predisposition to action, a state of readiness to act based on past experience, or a predisposition to act based on evaluations. Singleton et al. (2004) highlighted that lecturers have the negative attitude towards e-learning, therefore, they preferred traditional teaching to deliver content through the internet for the reason that they were more conversant with the face-to-face teaching. The study of Bonk (2000) reiterated that lecturers are required to have the right teaching skills in their fields to be able to stand tall and play various roles in terms of e-teaching; they ought to acquire adequate ICT competencies to be able to understand and adopt the use of ICT facilities in their teaching. Lecturers are unwilling to convert their print-materials into an electronic format, because of the negative attitude they have towards e-teaching. This attitude has made them prefer face-to-face teaching to the online method, in spite of the availability and accessibility of e-learning facilities (Nihuka & Voogt 2012). The study of Pelgrum (2001) established that the integration of ICT into teaching has become unsuccessful in an academic institution because of lack of ICT facilities for training,

coupled with limited time for training, and sometimes no provision for online training for academic staff in the use of ICT in the classroom environment.

In the same way, Toprakci (2006) stated that inadequate training for lecturers in the use of ICT facilities in Turkey was one of the predicaments that hinder the adoption of ICT facilities in the classroom environment. The study of Dawes (2001) expressed that the application of e-learning tools in the lecture halls have facilitated teaching and learning and also transformed the educational curriculum, it has also offered a better approach for students and lecturers in various ways in teaching and learning that have not been possible before. Yang (2006) conducted a study at the University of Taiwan, School of Nursing. The study revealed that the majority of the learners had positive attitudes towards e-learning. It was established that most of the students agreed that the internet learning model is an attainable way of learning which has certain qualities such as adaptability in time, space and conveniences.

The study of Becta (2008) established that the majority of the students' enjoyed face -to -face methods of teaching and learning than using computers. According to the results of the study, a significant number (74%) of the respondents indicated that they enjoy traditional method of learning and teaching to the online method, while (53%) admitted that they like to read from a print material than reading from a computer monitor. Smith, Caputi, and Rawstorne (2000; Govindasamy, 2002; Rosenberg, 2001) reported some challenges confronting e-learning students as low level in basic computing ,technophobia, students poor method of learning , inadequate motivational packages for lecturers, inappropriate hardware, students failure to study alone as well as negative attitudes of student towards online learning.

The findings of Kandasamy and Shah (2013) revealed that 80% of the participants reported on insufficient time, followed by 70% who mentioned inadequate knowledge on how to use technology in teaching, 60% of the respondents complained of difficult to integrate e-learning facilities into e-teaching due to absence of knowledge in ICT tools, and another 80% of the respondents also indicated nonexistence of appropriate software as well as websites to facilitate learning and teaching. Piccoli, Ahmad, and Ives (2001) established that lecturers' attitude towards e-learning and teaching have a direct positive effect on the success of e-learning adoption since lecturers are the key players in the academic field. According to Huang and Liaw (2005) revealed that lecturers' attitudes towards e-teaching and learning influence their acceptance of the usefulness of the new system as well as its integration into teaching. The study stressed further that faculty members frequently resist online teaching in some academic institutions due to their negative attitude toward the use of e-learning materials and e- teaching devices (Uzunboylu, 2007).

Deb (2011) pointed out that lack of constant communication between students and lecturers' generates a feeling of loneliness on the side of the students and this finally leads to a negative attitude towards the use of the new system. Agyei and Voogt (2011) concluded that accessibility of technology, as well as relevant online resources, impact students and lecturers attitudes while competencies correlate positively with the level of technology use. Lecturers' and students attitude towards e-learning and teaching also stimulate the smooth adoption of online learning and teaching in an institution of higher learning (Mihhailova, 2006). Students' attitude, as well as their intention and behaviour, determine their level of satisfaction and the degree of e-learning acceptance in the academic institution. Researchers have confirmed in their various studies that students and lecturers state of mind regarding the adoption of e-learning and teaching enhances

their experiences as well as satisfaction level (Malik, 2010; Friedrich & Horn, 2010; Zewayed et al., 2011).

The study of Timothy (2009) did not establish any substantial connection concerning students and lecturers' attitude, age and gender variations in the use of e-learning technology. Interestingly, Marwan and Sweeney (2010) identified a substantial association between gender, department as well as lecturer's attitude towards e-learning and teaching. Learning is a process, therefore, an individual's readiness and preparedness towards a new system will determine the survival or failure of that particular system adopted by the institution. Students' and lecturers' attitude, behaviour, age and cultural background concerning the use of e-learning and teaching in the distance education system play a significant role for the survival of online learning and teaching since they are the key players. The study of Selim (2005) affirmed that learners' behaviour and attitudes toward online learning are the major factors that determine failure or success for online learning in an academic institution.

Bakr (2011) conducted a study on Egyptian public schools and the findings reported that teachers have a positive attitude towards computers. A study by Gaba and Sethy (2010) stressed that the attitude of distance students towards electronic resources was shaped by their positive attitude towards e-learning and teaching devices. The study pointed out that online learning has made it possible for students to communicate with their course mates who are far and near, it has allowed students to share knowledge with their lecturers across the geographical boundaries, it allows easy location of information from a wide range of online sources such as the multimedia sources. Murithi and Indoshi (2011) reported that "learners and lecturers had the positive attitude towards the use of a computer in connection to the computer studies programme". Students' conviction in

the acceptance of online learning can be realized through the attitude and behavior of their lecturers. Lecturers' comportment and attitude towards students is a fundamental force that influences learners' confidence level in regard to online learning since lecturers serve as a role model in the lecture theater (Derbyshire, 2003). Campbell and Swift (2005) added that for e-learning to be successful in an academic environment, lecturers and learners have to change their attitude, behaviour, belief, perception, and habit towards e-learning and teaching.

The study of Hara and Kling (1999) has listed some challenges affecting e-learning as, poor communication between students and their peers, delay responses from lecturers, ambiguous instructions on the web; and technical problems were identified as some of the frustrations hindering e-learning and teaching in the institution of higher learning.

A similar study revealed that students with a positive attitude towards e-learning participated fully in all the e-learning courses introduced in the institution of higher learning while those with a negative attitude towards computer will definitely feel reluctant to use the computer for learning (Piccoli, Ahmad, & Ives, 2001). The study of Mahdizadeh et al., (2008) established that lecturers' attitude can be ascribed by their perception towards the web-based activities, "computer-assisted learning and the perceived added value of e-learning environments". Jones et al., (2004) emphasized that inadequate skills in computing on the side of the students can discourage them not to use e-learning platform as well as any e-resources or devices that will facilitate their learning activities. The study of Albirini (2006) stressed that lecturers have positive states of mind towards e-teaching and all the tool use in teaching. The attitude of the lecturers can be anticipated by computer features, cultural perception, and computer proficiency. In a related study by Nihuka (2011) found out that learners lack the ability to search for online

information through the internet. Interestingly, students are knowledgeable in using word processing to write and send online messages, to their colleagues while getting it difficult to send attachment documents and PowerPoint presentation to their lecturers. These challenges may be ascribed to lack of information literacy as well as lack of searching skills.

The study of Hussein (2011) showed that faculty members have a positive attitude towards e-learning; however, the study recommended the need for adequate training in the use of the system. Lecturers and students may have different opinions towards e-learning; they may consider it as a modern system while others may view it as a waste of university resources. Whatever their opinions may be, the only antidote for successful e-learning implementation is adequate training, periodic seminars, and orientations for both students and faculty members involved e-learning and teaching.

2.6 Electronic Learning and Teaching in Tertiary Institutions in Ghana

The adoption of e-learning technology has made great transformations in most institutions of higher learning in the developed nations but this successful gain is completely different in some institutions in Ghana. The majorities of the Universities in Ghana have made a giant effort in developing networking system, with this effort they have obtained adequate computers as their preparation and willingness to adopt e-learning and teaching in their distance education systems; however, the integration of technology into teaching and learning in the distance education mode in Ghana has become a big challenge to some institutions. Some universities in Ghana do not have ICT centres for students and lecturers, let alone to organize effective training for its members (ICT for Education Policy, 2008). According to the study, those with ICT centers are not able to maintain them due to inadequate budget allocation coupled with lack of qualified ICT

staff to supervise lecturers and students as well as organizing periodic training for faculty and learners. This has paved way for the sustenance of traditional method of teaching in most Ghanaian universities. Ghana as a country has gained ground towards the powerful utilization of technology in education especially in the institutions of higher learning. In view of this, the government of Ghana has established the ICT in Education Policy in 2008 after the first policy called ICT for Accelerated Development (ICT4D). The overall goal of ICT in Education Policy in Ghana is to allow all the graduate students either from the private or public institutions to have full access to the ICT devices and facilities to shape and advance their skills in ICT (ICT for Education Policy, 2008). Afari-Kumah and Tanye (2009) have contended that the development of technology into Ghanaian academic institutions have been moving at a snail's pace.

Teaching and learning technologies seeks to change the method of teaching from the traditional system teacher centered passive mode of teaching where the lecturer organizes and delivers the course material to the students, into a more active and interactive one where students examine and generate their own understanding applying electronic learning devices with the teacher playing as a guide. In a related study by Asunka (2008) revealed that the lack of sufficient resources and institutional challenges are hampering e-learning adoption and implementation in Ghanaian institutions. The study went further to explain that students usually were of the view that internet learning and teaching provides no favourable benefits over the traditional method of teaching and learning. In a similar study by Tagoe (2012) revealed that students feel comfortable with the current system of learning and teaching than the purely online system of learning, however, they admitted that the adoption of e-learning and teaching will be appropriate and possible in the coming years ahead. The study of Marfo and Okine (2011) on the adoption of online learning in "Kwame Nkrumah University of Science and Technology (KNUST) Kumasi",

established that the strategy for e-learning implementation has been a disappointment owing to a myriad of factors which include financial support. Awidi (2008) also added that the academic institutions in Ghana have made some great effort in developing network infrastructure as well as the acquisition of computers to facilitate the adoption of e-learning, unfortunately, the incorporating of technology into teaching in these institution has been difficult. The study of Marfo and Okine (2010) has listed some universities that have adopted and embraced e-learning technology as a method to handle the fast-growing number of learners accessing education in Ghana over the past decades as; "the Kwame Nkrumah University of Science and Technology, the University of Education, Winneba as well as the Ghana Technology University College (GTUC)".

2.6.1 Internal Factors Affecting E-learning and Teaching in Tertiary Institutions

Every new system comes out with challenges which may include financial support, human resource/capital, inadequate infrastructure, lack of technical expertise, and cost of maintenance, institutional and administrative support. These are issues of concern at the implementation stage of a new system. In view of these challenges that might impede the adoption and implementation of e-learning, it is imperative for an institution planning to adopt e-learning to prepare adequately in order to overcome these challenges and have a successful implementation of the new system.

The study of Chawinga (2016) reported that failure of lecturers to upload/send online courses to students on time; difficult to receive immediate responses from lecturers as well as the late release of the end of semester examination results discourage students to embrace e-learning.

The study of Newton (2003; Sife et al.,2007 & Nichols 2008; Mumtaz,2000) identified some internal influences that negatively affect the growth of online learning and teaching as,

nonexistence of institutional backing, technical challenges, inadequate financial backing and absence of support from the institutional authorities were some of the key factors impeding e-learning in an academic institution. The study of Onasanya et al., (2010) affirmed in their studies that the majority of the lecturers in higher academic institutions in Nigeria do not have pedagogical skills to use ICT tools in their teaching. The study explained further that it is unexciting to see university graduates admitted in a wayside computer training schools seeking to obtain fundamental ICT skills. In a related study by Okwudishu (2005; Gambari & Okoli, 2007) also revealed that the absence of ICT facilities in academic institutions hinder the development of e- teaching and e-learning. In a study on e-learning carried out by Kizito and Bijan (2006; Pal, 2006), established that the nonexistence of vision and framework during the implementation stage can lead to failure of the system. If the assertion by Kizito and Bijan, (2006; Pal, 2006), is anything to go by then, there should be a framework as well as online learning policy to support the survival and growth of the new system. These supports can be in the form of adequate infrastructure, serene learning environment, and also ICT experts to provide assistance to students and lecturers in their use of e-learning and e-teaching. The study of Ismail (2002; Ministry of Education, 2002) reported that lack of technical support services has been a challenge to successful implementation of e-learning in Ghanaian institutions. Wanyembi as cited by Tarus (2011) established that majority of lecturers in Kenyan universities have inadequate knowledge in ICT as well as little e-teaching skills for the reason that majority of them were trained in the environment where there was no ICT equipment available.

Latifah and Ramli (2005) confirmed in their study that for a successful adoption of e-learning system, an internal support should be considered as one of the main factors since it can impede e-learning implementation. Poon Low and Yong (2004) added that for a successful implementation

of e-learning and e-teaching, in the academic institution, the institution ought to consider the provision of adequate ICT infrastructure, issues of copyright, accreditation matters, availability of human capital as well as technical facilities. According to the study, failure to consider these factors will jeopardize the implementation of e-learning and e-teaching. The availability and accessibility of adequate facilities in the institution as well as good internal conditions can influence the use of those resources to accomplish the intended purpose (Al-Awadhi & Morris, 2008). Moya (2011) asserted that without the required human resources, institutional support and the availability of technical expertise, the adoption of e-learning and e-teaching in higher institutions will remain imperfect. Psycharis (2011) confirmed that for the successful implementation of e-learning and teaching in an academic institution, technological issues, infrastructural challenges, financial issues and staff with technical skills ought to be looked at for the survival of the system. The support of the university is very paramount at the implementation stage of any new system since the survival and failure of the system depends on the university management because management body is the final decider. Management has the ability to facilitate the implementation process as well as to impede the implementation of the proposed new system. Cheung and Huang (2005) highlighted that institutional support is measured as a "top-down adoption effort" in disseminating information about the implementation of the online learning and teaching in the institution. According to the authors, the acceptance of technology at the institution of higher learning depends largely on the top management support. They categorized these responsibilities as; the institutional support and support of the faculty members. Selim (2007) asserted that the absence of management support will inhibit the successful implementation of e-learning system at the institution of higher learning. In a similar study by Abbad, Morris, and Nahlik (2009), it was mentioned that the availability of technical

support enhances the degree of system usage and also have a direct influence in terms of perceived usefulness and indirect impact on the intention to use the available e-learning facilities by the parties involved. Hue and Jalil (2013; Ng'ambi, 2013) findings disclosed that there is no evidence that would confirm that universities' lecture halls are completely integrated with a wide range of technologies to support the online learning and teaching process. The findings stressed further that lack of institutional policies, teachers' competencies, and internal facilities were the significant challenges confronting e-learning and e-teaching at the universities.

If the assertion by Hue and Jalil (2013; Ng'ambi' 2013), is anything to go by then, it is imperative to think through factors such as the institutional policy, objectives, mission, vision, administrative support, cost of training and workshops, adequate budget allocation for equipment, availability of teaching and learning resources, students and lecturers' preparedness for the new system, and physical infrastructure before incorporating technology into teaching and learning in the distance education programmes. Malik (2010; Selim, 2007) highlighted that the provision of technological facilities and accessibility of adequate infrastructure stimulate learners and lecturers to have constant communication through the learning platform and this goes to improve learners performance as well as learners satisfaction in respect to their studies.

Similarly, Eke (2010) admitted that for e-learning to survive in the developing nation, it requires a strong foundation, such as the existence of infrastructure, which also requires adequate funds which is currently inadequate or non-existent in the developing countries. The study of Namisiko, Munialo, and Nyongesa (2014) affirmed that adequate ICT infrastructure and availability of resources in the university is a key factor for user's adoption of e-learning. This is also in line with Tagoe (2012) who reported that the key foundation of e-learning is ownership of

computers. Training is a key component in the implementation and use of a new system since people are involved in the operation of the system; failure and success of the system depend hugely on those who are targeted to use it. No system can operate fully to achieve the intended purpose without adequate training for users who are going to patronize the system. In view of these, university management should allocate funds for designing, organizing workshops and seminars, periodic maintenance and adequate training for it members who will be tasked to use the system. Assareh and Bidokht (2011) expressed that the adoption of e-learning involves courses, seminars, workshops, curriculum development, and pedagogical knowledge, according to the authors; these are the key components that determine the successful implementation of e-learning in an academic environment.

Sharma (2011) contended that e-learning is an innovative area and its components are generally unusual to numerous institutions; therefore, institutions are to seek professional advice before the adoption of e-learning into the distance education system. McCarthy and Berger (2008) highlighted that it is good to have policies on e-learning since e-learning policies have a stronger impact on students' and lecturers' ability in the use of the system. Salmon and Jones (2004) outlined factors to be considered in the initial implementation of e-learning and teaching as; students and lecturers background, institutional policy, technological influences, pedagogical and the influence of lecturers' attitude towards e- teaching. It is obvious that when administrators, students, lectures and all the stakeholders in the university are well-informed about the goals, mission, vision and the reasons for the implementation of e-learning into the distance education system, they will all offer their unflinching support for the system.

The studies of O'Neill, Singh, and O'Donoghue (2004) emphasized that moving from the conventional university method of teaching to electronic system of teaching and learning requires adequate education for lecturers, students, managers, and decision-makers to understand the need for the new system. "If an institution believes that e-learning can surge institutional reputations, improve teaching and learning quality, and provide more flexibility in student learning, these beliefs will influence the organizational structure, role of university and goals of graduates (Adams & Seagren, 2004)." According to Roger (2006), learning environment encompasses all the physical surroundings, psychological or emotional conditions and socio-cultural influences that can affect the growth and development of adult students engaged in learning. In spite of the great interest in e-learning globally, developing nations are still restrained by numerous challenges, such as lack of institutional support in terms of training and financing. The incorporation of technology into teaching and learning at the university is influenced by the institutional policies as well as lecturers and students attitude towards technology (Chen, 2008, Tondeur; Van Braak & Valcke, 2008; Lim & Chai, 2008; Clausen, 2007). Alazam, Bakar, Hamzah, and Asmiran (2013; Bonsu, Duodu, & Djang-Fordjour, 2013; Buabeng-Andoh, 2012; Peters, 2009) indicated in their studies that e-learning can only be successful in educational set up if factors like, technical challenges, competent level of lecturers to teach online courses, pedagogical matters, institutional policies, financial issues, security and privacy challenges ought to be dealt with. Sherry and Gibson (2002) added that institutions should consider technological, individual, and institutional factors before implementing technology into learning and teaching. Neyland (2011) carried out a study on online learning in Sydney and identified factors needed to be considered before integrating e-learning into teaching and learning as; institutional support, micro factors as well as teacher competence which has an

influence on the use of e-learning. The study of Chatterjee, Grewal, and Sambamurthy (2002) reported that institutional support is one of the most critical factors which facilitate the successful implementation of a complicated system. Gautreau (2011) stated that adequate support, training factors, reward and encouragement system as well as recognition are very important motivational factors in e-learning adoption by lecturers. Birch and Burnett (2009) disclosed institutional factors that impede e-learning as lack of academic leadership, the absence of clear vision, lack of formal strategic planning, institutional policies, excessive course loads, lack of adequate time and course designs were the problems facing e-learning and teaching. The quality of the course content, as well as the information, has the direct impact on student satisfaction with e-learning system in the university (Hassanzadeh, Kanaani & Elahi, 2012). The study of Tedla (2012) outlined some militating factors against e-learning as; unrealistic policies of ICT, poor infrastructure, lack of teacher competence, lack of confidence, lack of incentive, perception and beliefs, imposed curriculum, lack of proper network, political instability, brain drain, sporadic electricity, poor transportation, lack of public awareness and participation, poor school leadership, technological illiteracy and lack of pedagogical skills.

The study of Tabata and Johnsrud (2008) revealed factors hindering faculty adoption and support of technology as; lack of technology use and experiences, time, additional workload, institutional support, motivational forces and inducements, issues of promotion, tenure issues as well as the quality of the teaching and learning materials. Effective and adequate training, time, enumeration, financial and technical factors are the major components in e-learning and teaching, these factors stimulate learners and lecturers to use the online platform, therefore, failure to organize the needed training for students and lecturers will make the system to become invalid in an institution of higher learning and finally lead to students' withdrawal from the

programme. The study of Mihhailova (2006) outlined some factors confronting lecturers at Estonian University as; time management, time to prepare lecture notes and lack of compensation. Cornelius and Macdonald (2008) hinted that lecturers in the United Kingdom (UK) were having it tough to keep pace with postings on the discussion boards and forums, due to the slow nature of the internet. According to the authors, this poor internet service has affected their time needed to keep up-to-date information on the e-platform, therefore, has discouraged some lecturers not to post messages on the discussion boards and forums.

The findings of Nuuyoma (2012) revealed that lack of training provision for teachers, lecturers inability to handle ICT tools in the lecture halls, insufficient ICT devices, lack of incentives for teachers as well as congestion in the lecture halls were some of the factors identified in the study. The study of McGill et al (2014) enumerated some factors influencing e-learning implementation as inadequate financial support, lack of appropriate technology and inadequate training for teachers. The study added that the majority of academic institutions do not consider the costs involved in planning and administrating online courses as a key factor.

The study of Frimpong (2012) stated that students' attitude, lecturer attitude, technology, and institutional factors were the critical factors inhibiting the effective adoption of e-learning and teaching in an institution of higher learning. According to the findings, 35% of the respondents' lack adequate time, 31.67% indicated a lack of training provision and facilities 16.67% indicated a lack of appropriate hardware for learning and teaching. Agaba et al. (2005) indicated that the low patronage of online resources at the Makerere University by academic staff was attributed to their insufficient knowledge in computer applications and also difficulty in browsing the internet.

Adekinya and Adeyemo (2006) also expressed similar sentiments and added that universities have to provide lecturers and students with adequate searching skills; for instance, information literacy skills, knowledge in information retrieval and computer skills as an approach to market the use of e-learning resources. The study carried out by Kang'the et al (2008) on challenges of e-learning and opportunities at JKUAT, listed some factors affecting e-learning as, challenges of different platforms, insufficient facilities, difficult to upload teaching materials, poor internet services, consistent power outages and inadequate funds for e-learning implementation and development. Omosekejimi, Eghworo and Ogo (2015) conducted a similar study on the patronage of electronic information resources (EIRs) by undergraduate learners in Nigeria. Their study revealed challenges such as; difficult to download information due to the poor internet network, insufficient electronic resources, difficult to access some electronic resources as well as difficult to navigate through the e-platform owing to inadequate training.

Another study by Siritongthaworn et al., (2006) indicated that all the lecturers interviewed on e-learning technology implementation had little or no experience with online teaching. The study pointed out that the lecturers do not have full confidence in the adoption of e-learning and teaching. Similarly, learners indicated that they found it difficult to access online resources due to lack of access points, poor internet connectivity, poor communication network as well as inappropriate software for e-learning and e-teaching. Al-Fadhli (2011) conducted a study on factors influencing the acceptance of distance learning in Arab Open University, Kuwait. The study reported on a lack of basic computer skills, inadequate technological infrastructure, environmental issues, and lecturers' background were identified as the main factors that inhibiting successful implementation of online learning in an academic environment. In a related study conducted by Cardwell-Hampton (2008) also established that lack of lecturer's experience,

lack of basic searching skills to access online resources led to the refusal of some lecturers not to accept e-learning and teaching in the institution. Vrasidas, Pattis, Panaou, Antonaki, Aravi, Avraamidou, and Theodoridou, (2010) conducted a related study on the teacher use of ICT: challenges and opportunities. The findings revealed that 81.4% of the participants reported on the duration of time needed to cover course content, 71.7% reported on limited time; 53.5% mentioned unavailability of proper infrastructure; 50.2% mentioned nonexistence of support service for lecturers, 43.4% indicated lecturers not involve in the decision making body, and 37% said they need professional development. Miima, Ondigi, and Mavisi (2013) stressed that teachers lack enough time to teach online courses, therefore, unwilling to incorporate technology in their teaching, and this compelled them to use their traditional methods of teaching. The findings reported that 89% of the lecturers do not have confidence in online courses, 100% lacked basic ICT skills, while 78% mentioned resistance to change as well as non-availability of computer facilities in the institution.

The study of Abdelraheem (2006) identified problems confronting the successful adoption of online learning in the Arab nations as; inadequate e-learning and teaching facilities, culture, local content, copyright issues, instructors and learners attitude. According to Bower (2001; Haber & Mills,2008; Johnson,2008 ; Lyons,2004; Panda & Mishra ,2007; Ryan, Hodson-Carlton & Ali, 2005; Schifter,2002; Seaman,2009; Shea ,2007; Singh & Pan, 2004) listed similar factors confronting faculty members in online teaching as, lack of compensation, time, class sizes, additional responsibilities, quality of the course content, ownership of courses developed, insufficient training and resources, excessive workload, lack of administrative and technical support, difficulty in online teaching and institutional role were factors identified.

Maguire (2005) also highlighted some barriers militating against e-learning as; additional responsibilities, lack of recognition in tenure and promotion, lack of monetary incentives for developing online teaching courses, lack of quality in e-learning education, the effect of e-learning environment, security and the quality of online teaching. Awolola and Tejumola (2008) study reported on two basic factors such as; incompetence of lecturers in terms of computer usage and lack of adequate computers in the institution to support online learning and teaching. According to the study, students and lecturers have different capacities and skills in regard to ICT usage; the study, therefore, admonished that the new system ought to be simple in design, devoid of technical terms, easy to be learned and use by both learners and lecturers.

The study of Olson Kurt de Maagd et al., (2011) suggested that the adoption of online teaching and learning in an academic institution need adequate pre-service and in-service training for the learners and faculty members. According to the study, this type of training should cover the basic computer literacy as well as how to lecture effectively with e-teaching devices in the Private Universities. The study of Alazam et al. (2013) indicated that some lecturers lack adequate skills to teach online courses due to inadequate ICT facilities, the absence of pre-service and in-service training opportunities for lecturers. These factors were identified as the key challenges affecting successful e-teaching in academic institutions. Gyang (2008) buttressed the views of Awolola and Tejumola (2008) and added that the absence of appropriate ICT facilities, inadequate funds to support e-learning and teaching, low level of ICT skills among lecturers and poor attitudes towards technology were the hindrances that impede learning and teaching in Nigeria.

Bingimlas (2009) added that lack of provision for e-teaching training, inadequate e-teaching skills among lecturers and limited time were pointed out as the factors against the use of

technology in teaching. Similarly, Assareh and Bidokht (2011) reported on factors affecting e-learning usage as, lecturers' abilities, the need of information on e-learning environment, the difficulty of content appraisal, quality resources, teaching process, and assessment. The study of Gomes (2005) also confirmed that the absence of digital literacy training, nonexistence of pedagogical training on how to use e-teaching devices in the lecture halls as well as in specific subject areas, lack of awareness, poor attitude towards e-learning, absence of administrative support, lack of technical services, no provision for staff development as well as ownership were identified as some of the key obstacles that inhibit e-learning and teaching. Al-Adhaileh (2008) asserted that changing the culture and attitude of lecturers to accept technology in teaching and learning is considered to be one of the key factors in e-learning usage at Hashemite University. According to the study some faculty members are used to their traditional method of teaching and they take delight when standing in front of their students; therefore, changing from the face-to-face approach of teaching to technological approach becomes a big issue.

The results of Wamae (2011) reported that poor internet connectivity, the high cost of bandwidth, technical support, inadequate financial resources, inadequate infrastructure, inconsistent power supply as well as preparedness to embrace technology were indicated as some of the major hindrances that impede effective adoption of online learning in the institutions of higher learning. Similarly, Batchelor, Herselman and Traxler (2010; Elango, Gudep & Selvan, 2008; Amedzo, 2007; Thomas,2009; Istrate,2009; Richardson, 2009) indicated various challenges in their studies as quality in pedagogical practices, quality of materials, policy issues and interactivity of the tools that support teaching and e-learning. In developing online courses, lecturers should consider students' abilities in computer use, internet speed and the computer equipment meant for learning. Ndume et al (2008) highlighted on lack of searching skills, lack of

technical support, threats of computer viruses, limited number of computers, lack of training on how to access e-learning resources, management support, poor power supply, and poor internet connectivity was reported as some of the factors hindering the use of e-learning development in Tanzania and Uganda. The findings reported that 45% of the respondents agreed that they do experience power cuts during learning hours, while 32% were undecided.

In a similar study carried out by Lion and Start (2010) posited that 65% of the lecturers were comfortable with the face-to-face method of teaching than using the technology-aided method to accomplish teaching results. The study pointed out the inconsistency with online pedagogies, remuneration issues, insufficient training, the time required to prepare e-learning courses, as well as lack of administrative support. According to the study, these were the major factors fueling lecturers' resistance against e-learning. The study of Selim (2007) underlined some factors that impede the use of e-learning and teaching, as poor attitude of some lecturers, techniques in teaching, lack of motivational package(s) for students, students capability, student-to-student interaction, lack of ease of access to online facilities or resources as well as inadequate infrastructure were indicated. Berge and Muilenburg (2005) also identified some challenges of e-learning adoption in an academic institution as; the administrative problem, challenges of interaction, academic issues, motivation/incentives issues, inadequate time, limited access to resources and technical challenges. Becker and Jokrivita (2007) identified factors militating against the effective use of technology as; the age of lecturers, lack of adequate training on the part of some lecturers, absence of commitment constructivist pedagogy, nonexistence of professional development, dearth of interaction between lecturers and students as well as inadequate knowledge of some lectures to use e-teaching tools. Leary and Berger (2007) indicated some challenges of e-learning and e-teaching as the time needed to design online

courses for learning and teaching. A number of studies identified factors militating against e-learning adoption as, teacher-related factors, lack of vibrant policy on e-learning and teaching, absence of online framework, dearth of ICT supporting staff in some institutions and high costs of ICT equipment (Hennessy, Harrison & Wamokote, 2010; McCarthy & Berger, 2008; Swarts & Wachira, 2010; Wangari, 2008).

The term global village comes with global changes since technology keeps on developing every day. It is significant for university management to study and follow this dynamic world and keep abreast with new changes and development in order not to be left out. Institutions that have adopted e-learning technology in their distance education system should not stick to their outdated policies, but rather, study this new trend and revise policies that will support the growth and development of e-learning. Samarawickrema and Stacey (2007) also enumerated some inhibiting factors of e-learning and teaching as, lack of adequate knowledge on technology usage, planning and developing online courses as well as lack of time for scientific research. Kariuki (2006) added that changing from the traditional method of teaching to e-teaching is restricted by inappropriate training and lack of adequate funds. These factors affect lecturers' computer competence level as well as access to relevant online information or facilities which include, computers, internet, and technical support. Another key factor that inhibits e-learning and teaching is the unreliable power supply, particularly in the developing nations, therefore, each department, college; schools and faculties within the university should have a standby generator as a buck- up the system. The study of Okiy (2005) revealed some challenges militating against successful adoption of e-learning in an academic institution as inadequate funds, insufficient power supply, lack of manpower and technical staff, maintenance of ICT facilities, insufficient ICT facilities and inadequate knowledge in computers among students and

lecturers. The study of Enakrire and Onyenania (2007) also identified similar internal challenges impeding the use of e-learning resources as; absence of adequate training, poor internet connectivity, inadequate funds, inadequate knowledge of websites/search engines in searching for information on the internet, poor typing speed by the learners, lack of knowledge and skills on how to use online facilities efficiently.

Acosta and Odhiambo (2009) disclosed that "audio-visual forms of content delivery which have the potential to improve active- online learning were not being exploited fully in the universities". The study of Mutisya and Makokha (2016) found out that a significant number of the lecturers, (55%) have little training in e- teaching, while 17% of the respondents indicated that they had formal training in e-learning; another 20% of the respondents said they acquired e-teaching knowledge through self-training, and 8% indicated that they were trained by their colleagues. According to the study, "20% of the respondents had in-house training, 59% of the respondents rated the training as fairly adequate, and 7% rated it adequately. Al-Ghaith, Sanzogni, and Sandhu (2010) pointed out poor internet services as some of the major hindrances to e-learning implementation, and use of e-learning technology. Nawaz and Kundi (2010) enumerated militating factors affecting e-learning development at Pakistan University as lecturers' resistance to new innovation into teaching and learning, pragmatic measures and attitudes, managerial issues and lack of adequate training. Rhema and Miliszewska (2010) identified similar challenges confronting the adoption of e-learning in Libyan academic institutions as, cultural and linguistic background of the learners and lecturers, lack of e-learning awareness, attitudes, lack of technological and infrastructural development, expensive learning and teaching facilities, absence of indigenous expertise in curriculum design for teaching and learning, and also lack of institutional support. The study of Oye, Mazleena, and Iahad (2011)

did not oppose the challenges identified by the previous researchers but listed similar challenges like electricity, awareness, training of staff in connection with ICT use, incentive issues, bandwidth and internet connectivity as factors impeding e-learning development at the Nigerian University. The study of Al-Wehaibi et al., (2008) revealed inhibiting factors of online learning as; poor internet connectivity, issues of intellectual property and loss of privacy.

Al-Shboul and Al-Smadi (2010) study also highlighted some similar challenges that retard the use of e-learning in Jordan as; lack of appropriate e-learning tools, lack of adequate technological skills related to e-learning systems, lack of support from the administration in terms of finances, lack of qualified e-learning staff, lack of institutional support, lecturers' negative perception towards e-learning, lack of interest and training, as well as inadequate technological skills among lecturers and students. Jamlan (2004) carried out a study at the University of Bahrain's College of Education and pointed out some hindrances affecting e-learning as; technological, human resources, staff training, poor organization of online courses, unwillingness to transit from traditional modes of learning to e-learning delivery and inadequate infrastructural facilities to support e-learning and teaching.

Mclean (2006) established that the major concern for distance education students was the absence of interaction among the students and the lecturers amid the teaching and learning process. The lecturers were also disturbed about the inadequate preparation of students towards learning. Wolcott (2003) outlined some challenges confronting lecturers, as several hours required for planning and improvement of the course content as well as learning and mastering new technology. As a result of this, lecturers are unable to give sufficient time to carry out research studies and other publishing activities. Furtherance to the challenges, lecturers lamented

on the limited period to develop online courses, the nonexistence of attractive remuneration, lack of financial support, lack of allowances as well as lack of training and development for lecturers (Wolcott, 2003). Kwofie and Henten (2011) reported on the challenges of online concept in the developing countries as; lack of technical abilities and academic self-reliance, social support, incentives, competency, as well as adequate technical infrastructure. The study of Al-Tameem (2013) also reported on similar factors confronting online concept as; inadequate ICT infrastructure, the absence of sufficient protection for online facilities and difficult to access online facilities. The challenges confronting e-learning implementation is a widespread issue for all the institutions that intend to introduce the online concept in their distance programmes specifically, in the underdeveloped nations where there are limited resources and technical expertise to offer technical services as well as adequate training for both students and lecturers. Mosakhani and Jamporazmey (2010) also added that for an effective adoption of e-learning, an institution should consider some critical factors like lecturer's characteristics, student's characteristics, quality of the course content, quality of the information technology, exchange of information, institutional support, knowledge management, and policies.

Manda (2005) did a similar study on electronic resource usage in academic and research institutions in Tanzania. The findings pointed out, the dearth of sufficient training for the utilization of online materials, poor internet connections, inadequate access to computers, lack of adequate searching skills and poor budgetary allocations as well as lack of maximum usage of e-learning resources were some of the challenges identified. Literature revealed that frequent power failure, poor internet connectivity and improper guidance on the use of e-resources were the factors that militate against accessing e-learning resources (Ogbuiyi, et al, 2013). Aguti and Fraser (2006) noted that difficulty in getting access to existing technologies by lecturers is the

main hindrance that impedes the implementation of e-learning technology in some institutions in the developing nations. Benson and Palaskas (2006; Snoeyink & Ertmer, 2002), indicated that e-resources are the key factors that facilitate the implementation of online learning and teaching. According to the study, sufficient resource means the number of ICT resources that can be made available and accessible to both lecturers and students. Gakibayo, Anna, Ikoja-Odongo, and Okello-Obura (2013) established factors affecting the maximum use of e-learning resources as, lack of computer skills, lack of information literacy skills, lack of enough computers and slow internet connectivity. The findings of Rowland and Rubbert (2001) reported that part-time learners were making good use of electronic information sources. According to the results, 12% of the respondents admitted that they cannot access the internet facilities from home; 3% reported that they do not use the internet facilities at all, and 75% were familiar with search engines. The study of Sinha, Singha, Sinha (2011) also reported on the limited number of computers, poor internet speed, insufficient ICT infrastructure, unreliable power supply, and difficulty in uploading and downloading information from the learning platform.

The study of Okuongo (2006; Wangari,2008) asserted that beside lecturers knowledge in ICT education, the institutional ICT policy, inappropriate hardware in some institutions and the cost of e-learning devices still remain a key challenge to the successful adoption of e-learning in Kenyan institutions.

2.6.2 External Factors that Affect E-learning and Teaching in Tertiary Institutions

The external factors are the forces that can support or impede the acceptance and a successful implementation of e-learning and teaching in an institution of higher learning.

The study of Teo, Chai, Hung and Lee (2008) had categorized factors affecting lecturers in their adoption of e-teaching as; environmental as well as the characteristics of the faculty members. Another study by Goode (2010) expressed that the exorbitant prices of e-learning facilities affect lecturers who do not have adequate resources to purchase online resources and this goes a long way to affect their training opportunities. Mohd, Mohamad, and Krishnan (2011) indicated that the dearth of technical services, login difficulties, rampant down of server as well as poor internet services were the factors that affect students and lectures adoption of online. Abolarinwa, Adewoyin, and Aderanti, (2015) confirmed the study of Mohd, Mohamad, and Krishnan (2011 (2011) that poor internet signal and slow server were some of the challenges learners faced when using library electronic resources.

The e-learning Africa report of 2012 as cited in Kasse and Balunywa (2013) hinted some core factors impeding e-learning as, inadequate bandwidth, limited financial resources, limited human capital as well as inadequate power supply. Rambe and Mawere (2011) carried out a related study in Mozambique. The study revealed similar challenges as; poverty, inconsistent power supply, underdeveloped ICT architecture, and cultural barriers were some of the factors impeding e-learning adoption in some Africa countries. The challenges of unreliable power supply have been a key problem for the adoption and development of e-learning in academic institutions on the Africa continent. Poor electricity supply has caused a great damage to the e-learning facilities like projectors, computers, radio, and television. The study of Jimoh-Kadiri

(2008) asserted that it is difficult if not impossible to store e-learning facilities in an environment where the power supply is not reliable and steady. The price of an individual computer is still exceptionally high in Nigeria considering the salary level of an average employee in the nation. Few students that are advantaged to have an individual computer/laptop are not connected to the internet facilities as this phenomenon has worsened their already financial burdens which they cannot bear as learners (Ajadi 2008). Besser (2004) highlighted that a quite number of the distance education students have a weak computer background, this low computer skills, consequently, scared them from using computers in their studies. The study stressed further that, some of them hire experts to complete their online admission particulars, online registration forms, and other related online academic documents.

Millham and Thakur (2014) did a similar study in South Africa, and their findings reported poor internet services, laptop challenges and log in problems as the key external factors hindering e-learning adoption. Gunga and Ricketts (2006) carried out a study on the challenges facing e-learning initiatives in African universities. According to the study, lack of sponsors for e-learning programmes, the nonexistence of policymakers, lack of providers for telecommunication network service and lack of qualified lecturers to resolve the difficulties of e-learning education in Africa. The study of Gunga (2010) enumerated high price of a computer and its accessories, internet and the technical facilities, inconsistent electricity, a rampant power blackout in towns and villages were specified as some of the predicaments retarding the adoption of online learning and teaching in some academic institutions. In a related study, Kunaefi (2006) revealed that the academic institutions in the developing nations ought to offer "wireless and wired networks with unlimited internet connectivity (bandwidth)" to enhance the development of e-learning and teaching. Brown, Anderson, and Murray (2007) categorized external factors that

can influence e-learning implementation as; government role to make e-learning implementation successful, incorporating e-learning into the education system effectively and also the transformative role of the government to the institutions that adopted e-learning system. The study of Hollow and ICWE (2009) also added that lack of human capital, inadequate training on e-learning and lack of adequate funds to purchase the relevant bandwidth and other e-learning devices were the causes of the slow pace of e-learning development in some parts of Africa. Currently, the cost of bandwidth, coupled with slow internet connection restricts usage of online devices, thus; limiting the amount of content be uploaded/downloaded for learning and teaching purpose (Hollow & ICWE, 2009). Nwagwu and Ahanihe (2006) also identified some challenges of e-learning as; high prices of equipment, high prices of software, lack of adequate information from the providers, poor telecommunication infrastructure, poor policies, and lack of knowledge to develop online courses as well as economic and political instability were listed as some of the key factors. Prangya ,and Rabindra (2013) affirmed that poor infrastructure, high cost and difficulty in accessing some e-learning resources were identified as the hindrances to the proper and full utilization of e-learning and its facilities. Bonsu et al. (2013) also pointed out lack of access to computers, lack of ICT infrastructure, the high price of training resources as well as low ICT competencies among students and lecturers were the major problems indicated as the factors against the use of technology in Sunyani Polytechnic, Ghana. Zhao and Frank (2003) also buttressed the assertion made by Bonsu et al., (2013) that lack of access to the internet facilities from home was one of the key challenges inhibiting online learning and teaching process.

In a similar study on e-learning carried out by Ajadi, Salawu and Adeoye (2008) hinted that the use of technology in teaching and learning in distance education in Nigeria is bedeviled with

poor ICT infrastructure, high cost of computer or personal laptop, technophobia, economic difficulties, poor internet connectivity, high cost of software and license, poor maintenance culture, lack of stable power as well as technical support. Mtebe and Mtebe (2014) enumerated some inhibiting factors of e-learning in Sub-Saharan countries as the; the cost of acquiring e-learning facilities, difficulty in managing the resources and poor maintenance of ICT infrastructure. For instance, the cost of installing online facilities at the University of Education, Winneba, - Ghana, was estimated to be $20 a year, per student for a minimum of 15,000 students in 2008 (Unwin, 2004). Another study carried out by Noe (2014) reported that accessing information from the e-learning platform through the private internet café' is costly and this prevents learners from visiting e-platform for information. The study of Amedzo (2007; Williams & Eyo, 2011) also identified some factors inhibiting successful implementation of e-learning as, lack of infrastructural development, the dearth of human capital, issues of pedagogy, cultural diversities, lack of readiness for e-learning acceptance, unrealistic prices of e-learning and e-teaching devices were listed as some factors.

A few of the challenges confronting students on an e-learning course were outlined as a low level of confidence and knowledge with computers, computer ownership, technical issues related to computers and getting access to the internet as well as management of time (Arabasz& Baker, 2003). The study of (Weissman, 2003) revealed that the physical absence of the learners from their lecturers was considered to be one of the key external factors confronting distance education students. Communication between lecturers and learners by e-mail takes too much time and adds more obligations to the lecturers; he or she needs to adjust conventional and e-learning strategies, which in itself is a challenge (Arabasz & Baker, 2003). Kessy, Kaemba, and Gachoka (2006) highlighted that the cost of obtaining e-learning equipment, appropriate

software, and problems of telecommunication authority, maintenance, and repair of ICT facilities were listed as some of the prohibitive factors that discourage learners and lecturers not to accept e-learning and e-teaching in distance education**.** According to the study, African nations have poor ICT infrastructure and inadequate supply of telecommunication amenities, therefore, making it difficult to adopt e-learning and e-teaching in their academic institutions. The study of Alzahrani and Ghinea (2012) outlined some challenges affecting online-learning and teaching in the developing countries as, poor electricity supply, difficult to own a computer, difficulty in getting access to the internet facilities both within the university campus and outside campus as well as lack of computer competencies among students and lecturers. Ahlan and Atanda (2014) conducted a study on the challenges inhibiting the effective adoption of e-learning in developing countries from a Nigerian perspective. The study revealed infrastructure challenges, digital divide and no access to technology, erratic power supply, ownership of computers, lack of access to the internet and low computer skills of lecturers and students. Adequate knowledge, ICT competencies, attitude, perception, environmental factors, gender, age, experience in using ICT tools as well as training acquired, were listed as some of the key challenges to e-learning and teaching (Venkatesh & Morris, 2000; Mahmud, 2006; Mahmud & Ismail, 2010). The study of Anderson and Grönlund (2009) also classified external challenges confronting the implementation of e-learning in developing nations into four key groups such as; the characteristics of the individual (both lecturers and students), issues of technology, problems of course and contextual difficulties. Mirza and Al-Abdulkareem (2011) reported that the external factors that limit the adoption of e-learning in "Saudi Arabia" include the degree of internet infiltration, limited bandwidth, high cost of the internet facilities, low appreciation of e-learning

and teaching by the students and lecturers as well as the perception of the general public towards online learning were identified in their study.

In a similar study carried out by Abdelraheem (2006) in Oman outlined some hindrances to e-learning adoption as; poor infrastructure, Arabic culture, methods of e-learning implementation, copyright issues, the attitude of students and lecturers as well as the content of e-learning. The study of Vajargah et al., (2010) established the nonexistence of National Policy for ICT use in academic institutions, the absence of sufficient investments in ICT facilities, cultural impediments, financial difficulties and absence of proper training were the core external factors militating against the implementation of online learning.

The study of Bozdogan and Ozen (2014) also added the dearth of knowledge in online learning and teaching, technical challenges and low level of confidence among students and lecturers were the key factors identified. Davis and Danning (2001; Oliver, Bradley & Boyle, 2001; Bingimlas, 2009) added that lack of confidence, lack of access to e-learning resources, difficulties in internet connectivity and affordability were considered as some of the impediments to e-learning and teaching.

Khan et al. Hasan (2012) also reported on the lack of ICT supported infrastructure, inadequate funds for e-learning facilities, poor government vision, lack of institutional plan, political influences, for instance, unwillingness of political leaders to allocate funds for e-learning, poor attitude of lecturers and students were noted as the key challenges to e-learning usage in higher institutions. The study of Tarus, Gichoya, and Muumbo (2015) revealed some online learning challenges as; infrastructure, financial support, low internet bandwidth, inadequate policies, technical skills, teacher attitude and lack of time to prepare online courses.

In a related study by Maduekwe (2006) also outlined some external challenges confronting e-learning adoption as unreliable power supply, attitudinal influences, political, socio-economic, inadequate training, psychological as well as cultural challenges were listed among the factors impeding online learning and teaching. Rabiee, Nazarian, and Gharibshaeyan (2013) reported on the cultural diversities, educational, socio-economic challenges as well as legal issues were identified as some of the key challenges militating against the adoption of e-learning.

The adoption of e-learning in academic institutions is exceptionally costly that it requires government backing in terms of adequate power supply, enough computers as well as access to the internet (Fuchs & Horak, 2008). The study of Venter (2003) revealed that Africa countries lack adequate internet broadband to support online learning and teaching in their institutions of higher learning. The study of Waycott et al., (2010) reported that lecturers are the ones who mostly resist the use of e-teaching devices in their teaching activities as against students. The study of Luboobi (2007) affirmed that "regulatory frameworks for the telecommunications, ICT and intellectual property rights are still restrictive in" some institutions in Africa.

The study, therefore, recommended that in order to "bridge the gap in the digital divide", political leaders and management of academic institutions should support and formulate vibrant policies to enhance the adoption of e-learning and e-teaching irrespective of numerous challenges that they may encounter.

2.12 Chapter Summary

The chapter reviewed the literature relating to e-learning and teaching in distance education.

The literature reviewed was carried out with the aim of finding out results in previous studies that are pertinent to the present study. Reviewing the literature has provided the researcher with the chance to review the concept of e-learning and teaching and also, results of other studies. Literature was reviewed on the World, African, and Ghanaian views of electronic learning and teaching. This has helped in filling gaps and added literature to the body of knowledge on e-learning and teaching

CHAPTER THREE

METHODOLOGY

3.1 Introduction

In every research study, the methodology offers a quantitative or numeric interpretation of patterns, attitudes, and in addition perspectives of a population by concentrating on that population as well as studying a sample of that population (Creswell, 2014).

This chapter, therefore, describes the methodology used for the study. It covers the research design, selection of subjects, population, and selection of sample (size and techniques), data collection instrument, data analysis and presentation of findings.

3.2 Research Design

A research design is a blueprint, designed to arrive at the study objectives or answer research questions. The study employed the descriptive study with a cross-sectional design. A cross-sectional survey has been known as an effective method to provide a snapshot of the current behaviors, attitudes, and perspectives of participants (Gay, Mills & Airasian, 2009).

A cross-sectional survey was considered to be an appropriate method for this study than a longitudinal design because of its ability in collecting data from respondents of different characteristics and backgrounds within a short period of time. The reason for using a cross-sectional approach in this study is that Ali and Ahmad (2011; Islam et al., 2011) have used the same approach in their studies on e-learning for data gathering. Therefore, the present study considered the same approach as an appropriate method for data gathering to assess e-learning by distance education students and lecturers of the VVU.

3.3 Selection of Case

For the purpose of proximity and time as well as the kind of the study, Valley View University (VVU) was selected as the study location. The justification for selecting the VVU is that it is the premier private university chartered in Ghana owned by the Seventh - Day Adventist Church (S.D.A), and the premier private university in Ghana received presidential charter in the year 2006 from the former president John Agyekum Kuffour, and it awards its own degree certificates to its students. Another justification is that the Valley View University (VVU) is one of the universities in Ghana that has introduced electronic learning in its distance education system.

In addition to the above, the selected area was accessible to the researcher; also the process of data collection was easier and faster due to a proximity of the study area to the researcher. An introductory letter was taken from the Head of Department of Information Studies to the Director of the Centre for Adult and Distance Education (CADE) VVU to seek permission before the study was carried out.

3.4 Selection of Subjects

The distance education students of the Oyibi campus of the Valley View University and the lecturers were selected as the subjects for the study.

3.4.1 Target Population

A population refers generally to the subject or group from which a sample is selected. It is a group of much interest to the researcher whose views finally determines the findings of a study.

A research "population is a unit being sampled; it can be a geographical setting, person, organization, a written document or a social action (Neuman, 2006)". The target population for

this study consisted of distance education students and also lecturers of the Oyibi campus of the Valley View University. The statistics for students and lecturers available to the researcher at the time of carrying out this study was made up of 88 lecturers and 296 undergraduate distance students who registered for the semester in their respective School /Department/ Faculty (VVU Admissions and Records Office, 2017/18). Table 3.1 below shows the breakdown of students and lecturers population including their respective School /Department/ Faculty.

Table 3.1 Population of the study

School /Department/ Faculty	No. of students from Each Department	No. of Lecturers' by Department/ Faculty
School of Business	104	14
General Education	50	17
Faculty of Sciences	67	26
Faculty of Arts & Social Sciences	75	31
Students Totals	**296**	**Lecturers' Total 88**
Grand Total	384	

Source: VVU Admissions and Records Office (2017/18; VVU Human Resources Department (2017/8)

3.4.2 Sample Size

According to Kumekpor (2002), a sample size comprises the population of a specific number of units chosen by a researcher for a particular study. Saunders, Lewis, and Thornhill (2009), affirmed that the greater the sample size, the more likely the generalizations are an accurate reflection of the population. According to Nwana (2008) "if the population of a study is in a few hundred, a 40% or more sample will do, if many hundreds, 20% sample will do, if in few thousand, 10% will do and if several thousand, 5% will do". According to Bernard (2012; Leedy

& Ormrod, 2010) for a smaller population survey of less than two hundred (200), the entire population can be used. Based on their recommendations, all the lecturers were selected for the study. In order for the researcher to get a sample size for all the students from each class of the various Departments, Schools, and Faculties, the Nwana's (2008) recommendation was used to select a sample of 40% from each class of the various Departments, Schools, and Faculties.

In line with the Nwana's (2008), the researcher, therefore, selected a sample size of 118 which is 40% of the 296 distance education students of Oyibi campus of the Valley View University. Alreck and Settle (1985) stated that "only a small fraction of the entire population ordinarily provides sufficient representation of the group as a whole and enough accuracy to base decisions on the results with confidence".

Thus; a sample size is calculated by dividing forty by one hundred and multiplying the result by the population.

$$\text{Sample size of students} = \frac{40}{100} \times \mathbf{296 = 118.4}$$

From Table 3.2 below, 118 represents the sample size of the distance education students who registered in their respective School /Department/ Faculty. With reference to the sampling ratios proposed by Alreck and Settle (1985), a proportionate sample size was used to select the sample size for the students of each department, Schools, and Faculties, the following formula was used:

$$\text{P.S} = \frac{\text{Population of students for each School /Department/ Faculty}}{\text{Total population of distance students}} \times 118$$

Where P.S = Proportionate Sample Size. The result is represented in Table 3.2

For **S O B** = $\frac{104}{296} \times 118 = 41$

Where **SOB** = School of Business as displayed in Table 3.2

The table below provides information on the population and proportionate sample size of this study.

Table 3.2: Population and Proportionate Sample Size for each School /Department/ Faculty

DISCIPLINES	**Students Population**	**Proportionate Sample**
School of Business (SOB)	104	41
General Education (G E)	50	20
Faculty of Sciences (FOS)	67	27
Faculty of Arts & Social Sciences (FASS)	75	30
Total	**296**	**Sample Size = 118**
Lecturers' Total = 88	**+ 118**	
Grand Total	**206**	

Source: VVU Admissions and Records Office (2017/18) and VVU Human Resources Dept., (2017/18).

3.4.3 Sampling Technique

A sampling technique is a method that researchers employ to select the subject(s) for a particular study. It involves the examination of a carefully selected proportion of the units of a phenomenon in order to help extend knowledge gained from the study. The convenience sampling technique was used to select the students. The sample was selected from the distance education students who were enrolled at the Oyibi campus of the Valley View University.

Thus, the convenience sampling technique was used to select students from the School of Business, General Education, Faculty of Sciences and Faculty of Arts and Social Sciences

respectively as indicated in Table 3.2. The sample size for the students was one hundred eighteen (118), while the population of the lecturers was eighty-eight (88), therefore, the lecturers were not sampled. The entire population was used since the number was small and could be managed within the time frame for the study, based on the Bernard (2012; Leedy & Ormrod, 2010) recommendations as stated above. According to Creswell (2005), "convenience sampling is a quantitative sampling procedure in which the researcher selects the participants because they are willing and available to be studied."

3.5 Instrumentation

According to Fraenkel and Wallen (2008), instrumentation is the whole process of collecting data. It involves not only the selection or design of the instrument but also the conditions under which the instrument is administered. Hsu and Standford (2010) reiterated that the research instrument implies the devices or ways by which the researcher strives to measure variables or items of interest in the gathering of data process. It is not only connected to the instrument design, selection, development, and evaluation but moreover the conditions underneath which the assigned instruments are administered.

3.6. Data Collection Instrument

The researcher adopted the questionnaire as the main instrument for data collection. Kumar (2005) described a questionnaire as a written list of questions for which answers from respondents are recorded. Saunders et al (2009) expressed the view that the validity and the reliability of the data a researcher collects as well as the response rate achieved depend to some extent, on the design and structure of your questionnaire. The researcher designed a self-administered questionnaire to gather data from the field. Two different types of questionnaires

were distributed to the students and lecturers. The self-administered method of administering a questionnaire is the suitable approach than other approaches, for instance, individual groups, phone interview(s) and mailing.

According to Pickard (2007) the reasons for using a questionnaire as a data collection instrument are; ability to reach a large and geographically dispersed community at a relatively low cost, ability to harvest data from a larger sample than would be possible using any other technique, anonymity can be offered as well as confidentiality, data analysis can be determined from the outset even as far as coding before the questionnaires have been distributed. The structured questionnaires were employed to collect data. The questionnaires were closed-ended questions which permit the participants to select an option by tickling. The questionnaires were divided into six sections (namely, A, B, C, D, E, and F).

The questionnaires were designed according to the main objectives of the study.

Section A Concentrated on the demographic data of the respondents

Section B Highlighted on the lecturers and students perception of e-learning

Section C Dealt with the perceived ease of use of e-learning by lecturers and students

Section **D** gathered information on the lecturers and students attitude towards e-learning

Section E Collected information on internal factors that affects the use of e-learning by lecturers and students

Section F Focused on the external factors that affect the use of e-learning by lecturers and students.

3.7 Mode of Data Collection

The questionnaires were distributed by the researcher with the help of a staff at the distance education centre. A letter from the Department of Information Studies was taken to the Director of the Centre for Adult and Distance Education (CADE) to seek permission for the study.

The staff was well-informed about the purpose of the study before the distribution of the questionnaires. The distribution and collection of the questionnaires took three weeks.

3.8 Presentation of Data and Analysis

According to Creswell (2012) data analysis include preparing the data for analysis, conducting different analyses, moving deeper and deeper into understanding the data, representing the data, and making interpretation of the larger meaning of the data.

In order to draw inferences, proper interpretation, comparison as well as conclusions from the data gathered, the Statistical Package for Social Sciences (SPSS, 17 Version) was employed for data coding, capture and analysis owing to its ease of use.

The outcome of the analysis was presented in percentages and tables.

Presentation of data and analysis followed the following process;

1. The questionnaire was sorted out according to faculties and schools respectively.
2. The questionnaires were checked to find out whether they had been answered correctly by the respondents.
3. For easy identification, serial numbers were assigned to each questionnaire; this helped the researcher to identify those with errors.

4. Fields were designed using the SPSS for the various questions
5. The coded responses were then captured using the SPSS
6. The data created from the entries in the SPSS was used for all the statistical analysis
7. The researcher summarized the analyzed data based on the objectives of the study.
8. Finally, the data gathered was presented in the form of frequency distribution tables to provide a presentation of data.

3.9 Ethical Issues and Consideration

In every research study, it is imperative for the researcher to ensure that the integrity and right of his/her subjects are well protected in the study in order not to infringe their rights. According to Creswell (2014), there is a need for researchers to safeguard their subjects, "in order to build confidence with them, promote the integrity of the research, guard against misconducts and impropriety that might reflect on their organization or institution, and cope with challenges".

In line with these principles, an introductory letter was taken from the Head of Department of Information Studies to the Director of Centre for Adult and Distance Education (CADE) VVU to seek permission before the study was carried out. All the subjects were adequately informed of the reason for the study and were assured of their safety and confidentially. Moreover, the researcher adhered to the University of Ghana's code of conduct for research and all references cited were duly acknowledged.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the data analysis and findings for this study. The section has been organised under six main sub-headings as found in the objectives of the study for both students and lecturers. It consists of demographic data, students' and lecturers' perception towards e-learning, perceived ease of use of e-learning, students' and lecturers' attitude towards e-learning, internal factors affecting e-learning and external factors affecting e-learning.

4.2 Response Rate

The respondents for the study comprised Valley View University lecturers and students of distance education. Out of the total number of 118 copies of questionnaires distributed to the students, 112 were retrieved from the respondents and considered valid for the analysis, this represents 94.92% response rate. On the part of the lecturers, a total of 88 copies of questionnaires were distributed to the respondents, however, 78 copies were filled correctly and returned. This represents 88.63% response rate. This affirmed the study of Powell and Connaway (2004) that "high response rate is characteristic of a self-administered questionnaire."

4.3 Demographic Data of Respondents

This section of the study presents respondents background. It covers the characteristics of the respondents, gender as well as age.

4.3.1 Gender of Respondents

The respondents were requested to state their gender and the results are displayed in Table 4.1

Table 4.1: Gender of respondents for both students and lecturers

Students N = 112			**Lecturers N = 78**		
Students	Frequency	Percentage	Lecturers	Frequency	Percentage
Male	64	57.1	Male	52	66.7
Female	48	42.9	Female	26	33.3
Total	**112**	**100**	**Total**	**78**	**100**

Source: Field data, 2018

Table 4.1 above indicates that 57.1% were male students whereas 42.9% were female students.

On the part of the lecturers, 66.7% were male whilst 33.3% were female as depicted in the table above.

4.4 Age of Respondents

Both student respondents and faculty respondents were asked to indicate their ages and the results are shown in Table 4.2

Table 4.2: Ages of Student Respondents and Faculty Respondents

Students N = 112			Lecturers N = 78		
Age of Students	**Frequency**	**Percentage**	**Age of Lecturers**	**Frequency**	**Percentage**
19 years and below	3	2.7	30 years and below	8	10.3
20-30 years	60	53.5	30-40 years	37	47.4
30-40 years	35	31.3	40-50 years	32	41.0
40 years & above	14	12.5	50 years and above	1	1.3
Total	**112**	**100**	**Total**	**78**	**100**

Source: Field data, 2018

The results of Table 4.2 indicate that the majority of the students fell between the ages of 20-30 representing 53.5%, followed by 30-40 also representing 31.3%. From the side of the lecturers,

47.4% fell between the ages of 30-40 years while 41.0% fell between the ages of 40-50 years. This implies that the majority of the student respondents were made up of young students while the lecturers' population was made up of the middle-aged.

Table 4.3: School / Department / Faculty

Students N = 112			Lecturers N = 78		
School, Faculty/Dept.	**Frequency**	**Percentage**	**Faculty/Department**	**Frequency**	**Percentage**
School of Business	45	40.18	School of Business	13	16.7
Faculty of Arts & Social	27	24.11	Faculty of Arts & Social Sciences	27	34.6
General Education	23	20.54	General Education	15	19.2
Faculty of Sciences	17	15.17	Faculty of Sciences	23	29.5
Total	**112**	**100**	**Total**	**78**	**100**

Source: Field data, 2018

The study sought to establish the number of students and lecturers who belonged to each school, faculty or department. Out of 112 students, 45(40.18%) belonged to the School of Business, followed by 27(24.11%) who belonged to the Faculty of Arts and Social Sciences, and 23(20.54%) belonged to the General Education, while 17 (15.17%) belonged to the Faculty of Sciences. On the part of the lecturers, 13 (16.7%) belonged to the School of Business, followed by 27(34.6%) belonged to the Faculty of Arts and Social Sciences, another 15(19.2%) belonged to General Education and 23(29.5%) who also belonged to the Faculty of Sciences respectively.

4.5 Students' Perception Towards E-learning

The first objective sought to establish students' perception towards the use of e-learning at the Valley View University (VVU). Aragon and Johnson (2008) report that students' perception towards e-learning contributes to their decision to withdraw from an e-learning or not. To find out students' perception towards e-learning, some statements were presented to the students and they were requested to answer.

The results are shown in Table 4.4, where**; SA= Strongly Agree; A=Agree; NDA= Neither Disagree nor Agree D= Disagree; SD = Strongly Disagree**

Table 4.4: Students' perception towards E-learning

Students N = 112					
Students perception towards e-learning	**SA**	**A**	**NDA**	**D**	**SD**
E-learning allows better access to e-resources	42(37.5%)	28(25%)	4(3.5%)	21(18.8%)	17(15.2%)
I can interact with my colleagues through the e-learning platform	43(38.4%)	21(18.8%)	9(8%)	38(33.9%)	1(9%)
E-learning facilitates the presentation of course content	38(33.9%)	11(9.8%)	23(20.5%)	35(31.3%)	5(4.5%)
E-learning is difficult and frustrating	47(42%)	22(19.6%)	13(11.6%)	26(23.2%)	4(3.6%)
E-learning allows greater interaction with my lecturers	9(8%)	20(17.9%)	19(17%)	37(33%)	27(24.1%)
Access to the internet is difficult and this affects my learning	49(43.75 %)	21(18.75%)	18(16.07%)	13(11.61%)	11(9.82%)

Source: Field data, 2018

It can be seen from the responses that out of 112 respondents, 42(37.5%) strongly agreed that e-learning allows them better access to e-resources, followed by 21(18.8%) of the respondents who

disagreed with the statement, however, 4(3.5%) neither disagreed nor agreed to the question. This shows that the majority of respondents got access to e-resources for their studies.

The researcher tried to find out whether students' could interact with their colleagues through the e-learning platform. Out of the 112 students, 43(38.4%) of the respondents strongly agreed to the statement, 38(33.9%) disagreed that they could not interact with their colleagues, and only 9(8%) of the respondents neither disagreed nor agreed. It can be concluded that the majority of students could interact with their colleagues through the e-learning platform. To ascertain whether e-learning facilitated the presentation of course content, 38(33.9%) of the respondents strongly agreed to the statement while 35(31.3%) disagreed with the assertion. It can be inferred that the majority of students admitted that-learning facilitates the presentation of course content.

Again, to find out students' perception concerning difficulties and frustrations of e-learning, out of 112 respondents, 47(42%) of the respondents strongly agreed that they faced difficulties and frustrations when using e-learning, while 26 (23.2%) disagreed with the claim, only 13 (11.6%) of the respondents indicated that they neither disagreed nor agreed to the statement. This can be inferred from the responses that the majority of students went through difficulties and challenges when using e-learning platform. The study again, sought the views of students' whether e-learning allowed greater interaction with their lecturers, 37(33%) disagreed, even though, 20(17.9%) agreed that e-learning allowed them to interact with their lecturers. The findings indicated that the majority of the students could not interact with their lecturers' through the online e-learning platform.

Another statement sought to find out whether the internet network connectivity (speed) on campus was bad or not. Out of 112 respondents, 49 (43.75%) of the respondents strongly agreed

that the internet network connectivity (speed) on campus was bad, while 13(11.61%) disagreed with the statement, however, 18(16.07%) did not agree or disagree to the assertion.

This also suggests that the internet network connectivity (speed) on campus was bad.

4.6: Lecturers Perception Towards E-teaching

The lecturers' were subsequently requested to indicate their perceptions in connection with e-teaching from the statements provided in Table 4.5 below.

Table 4.5: Lecturers' perception towards E-teaching

Lecturers N = 78					
Lecturers' Perception towards E-teaching	**Strongly Agree**	**Agree**	**Neutral**	**Strongly Disagree**	**Disagree**
E-teaching encourages learning and removes the distance between a lecturer and students	45(57.7%)	5(6.4%)	-	4(5.1%)	24(30.8%)
I am not comfortable with the use of e-learning devices in my teaching	8(10.3%)	11(14.1%)	10(12.8%)	48(61.5%)	1(1.3%)
I can communicate effectively with students through the e-learning platform	3(3.8%)	12(15.4%)	5(6.4%)	7(9%)	51(65.4%)
The use of e-learning tools in teaching consume time	21(26.9%)	19(24.4%)	2(2.6%)	10(12.8%	26(33.3%)
The use of e-learning platform reduces personal contact between teachers and students	29(37.2%)	16(20.5%)	10(12.8%)	2(2.6%)	21(26.9%)

Source: Field data, 2018

In order to find out whether e-teaching encourages learning and removes the distance between a lecturer and students, 45(57.7%) of the respondents strongly agreed that e-teaching encouraged

learning and removed the distance between a lecturer and students as against 24(30.8%) respondents who disagreed with the statement. It can be concluded that the majority of the lecturers agreed that e-teaching encourages learning, though; few had expressed negative perception towards the statement.

To find out whether lecturers were comfortable or not with the use of e-learning devices during teaching, 48(61.5%) strongly disagreed with the statement, while 11(14.1%) agreed that they were not comfortable with the e-teaching devices, another 10(12.8%) of the respondents remained neutral to the statement. It can be deduced that the majority of the lecturers felt comfortable when teaching with e-learning devices.

In the quest to find out whether lecturers can communicate effectively with students through the e-learning platform, the results indicated that 51(65.4%) of the respondents disagreed with the statement that they could not communicate with their students, while 12(15.4%) agreed with the statement. It can be concluded from the results that the majority of the lecturers could not communicate effectively with their students through the e-learning platform. The researcher asked whether the use of the e-learning platform reduced personal contact between a lecturer and students', out of 112 respondents, 29(37.2%) agreed that the use of e-learning system has reduced their personal contacts with their students while 21(26.9%) disagreed with the assertion. It can be concluded from the results that the e-learning platform reduces personal contact between a lecturer and students.

4.7 Perceived Ease of use of E-learning by Students

The second objective sought to establish the perceived ease of use of e-learning by students.

It displays the percentages of responses to whether respondents perceived the use of e-learning system to be difficult or easy.

Table 4.6: Perceived Ease of use of E-learning by Students

Students N = 112					
Perceived ease of use of e-learning	**Very difficult**	**Difficult**	**Neutral**	**Easy**	**Very easy**
Learning to use the e-learning platform is	19(17%)	25(22.3%)	4(3.5%)	47(42%)	17(15.2%)
Searching for information on the e-learning platform is	34(30.4%)	30(26.7%)	7(6.3%)	26(23.2%)	15(13.4%)
Getting access to e-learning resources for my study is	17(15.2%)	44(39.3%)	16(14.3%)	31(27.6%)	4(3.6%)
Navigating through the e-learning platform is	12(10.7%)	24(21.4%)	4(3.6%)	13(11.6%)	59(52.7%)
The loading and downloading of materials is	60(53.6%)	8(7.1%)	11(9.8%)	5(4.5%)	28(25%)
Logging into the e-learning platform is	20(17.8%)	33(29.5%)	7(6.3%)	46(41.0%)	6(5.4%)

Source: Field data, 2018

The responses in Table 4.6 indicated that 47(42%) of the respondents perceived the use of e-learning platform to be easy, while 25(22.3%) indicated that the use of e-learning platform was difficult, 4(3.5%) remained neutral to the statement. It can be concluded that the majority of the student respondents found it easy to use e-learning platform. The respondents were asked whether searching for information on the e-learning platform was difficult or not, 34 (30.4%) of the respondents indicated very difficult to the statement, however, 26 (23.2%) indicated that it

was easy to search for information on the e-learning platform. From the results, the majority of the respondents indicated that it was very difficult to search for information on the e- platform.

The respondents were asked to indicate whether getting access to e-learning resources was difficult or not, with this 44(39.3%) of the respondents indicated that it was difficult to get access, followed by 31(27.6%) who indicated that it was easy to get access to e-resources, while 16(14.3%) of the respondents remained neutral. From the results, it can be inferred that students found it difficult to access e-resources from the e-platform. As part of the objectives, the researcher tried to establish whether loading and downloading of materials were very difficult or easy, 60(53.6%) of the respondents indicated that they found it difficult to load and download materials, 28(25%) indicated that it was very easy to load and download, while 11(9.8%) remained neutral.

It was evident from the responses that a significant number of students found it difficult to load and download information. To determine if logging onto the e-learning platform was difficult or not, 46 (41.0%) of the student respondents indicated that it was easy to log in, while 33(29.5%) indicated that it was difficult to log in, however, 7(6.3%) of the respondents remained neutral.

It can be deduced from the responses that the majority of the students can log in to the e-platform and search for information.

4.8 Perceived Ease of use of E-teaching by Lecturers

In order to determine the perceived ease of use of e-teaching, the lecturers were similarly asked to indicate their perceived ease of use of e-teaching. The results are presented in Table 4.7.

Table 4.7: Perceived Ease of use of E-teaching by Lecturers

Lecturers N = 78					
Perceived ease of use of e-teaching	**Very difficult**	**Difficult**	**Neutral**	**Easy**	**Very easy**
Searching on the e-learning platform for information is	39(50%)	3(3.8%)	1(1.3%)	11(14.1%)	24(30.8%)
Loading and downloading of e-learning resources	34(43.59%)	9(11.54%)	5(6.41%)	19(24.36%)	11(14.1%)
Uploading/Sending online information to students is	21(26.92%)	15(19.23%)	3(3.85%)	13(16.67%)	26(33.33%)
Logging into the e-learning platform is difficult	39(50%)	3(3.8%)	2(2.6%)	29(37.2%)	5(6.4%)
My interaction with students on the e-learning platform is	16(20.51%)	13(16.67%)	3(3.85%)	5(6.41%)	41(52.56%)
Reaching out to students and getting feedback from them on e-learning platform is	22(28.21%)	15(19.23%)	4(5.13%)	21(26.92%)	16(20.51%)
Navigating through the e-learning platform is	3(3.8%)	31(39.7%)	1(1.3%)	25(32.1%)	18(23.1%)

Source: Field data, 2018

With regard to the perceived ease of use of e-teaching, it can be seen from the responses that 39(50%) of the respondents reported that searching on the e-learning platform for information was very difficult as against 24(30%) respondents who indicated that it was very easy, however, 1(1.3%) of the respondents remained neutral. It can be concluded that searching on the e-learning platform for information was difficult for lecturers. A similar statement was given to the lecturers to indicate whether loading and downloading of materials were difficult or easy, out of 78 respondents,34(43.59%) hinted that it was very difficult, however,5(6.41%) remained neutral. Interestingly, both students and lecturers indicated that it was difficult to load or download

information from the e-learning platform. This suggests that loading and downloading of information was difficult on the e-learning platform for both students and lecturers.

The study also established that 26 (33.33%) of the respondents found it easy to send online information to students, while 21(26.92%) respondents indicated very difficult, only 3(3.85%) remained neutral. It can be concluded that sending online information to students was not difficult. Also to determine whether it was easy to interact with students on the e-learning platform, 41(52.56%) of the respondents indicated that it was very easy to interact with students, followed by 16 (20.51%) who indicated that it was very difficult to interact with students, only 3 (3.85%) of the respondents remained neutral. From the results, it can be concluded that it was easy to interact with students through the e-learning platform.

4.9 Students Attitude Towards E-learning

The study of Selim (2005) affirmed that students' behaviour and attitudes toward e-learning are the major factors that determine the failure or success of online learning in an academic institution. The third objective of this study was to find out students' attitude towards e-learning; therefore, some statements were presented to the respondents as indicated in Table 4.8

Table 4.8: Students' Attitude Towards E-learning

Students N = 112					
Students Attitude Towards E-learning	**Never**	**Rarely**	**Sometimes**	**Often**	**Always**
E-Learning is a useful medium for self-learning	31(27.68%)	13(11.61%)	47(41.96%)	19(16.96%)	2(1.79%)
E-Learning has developed my knowledge and skills in ICT	25(22.3%)	20(17.9%)	11(9.8%)	19(17%)	37(33%)
I prefer to have some courses online, rather than face-to-face learning	40(35.7%)	21(18.8%)	38(33.9%)	9(8%)	4(3.6%)
I need to be trained before they use e-learning platform	2(1.8%)	9(8%)	35(31.3%)	23(20.5%)	43(38.4%)
Learning with a computer is very difficult	3(2.7%)	13(11.6%)	78(69.6%)	12(10.7%)	6(5.4%)
E-learning devices I use for my program are user-friendly	9(8%)	29(26%)	55(49.1%)	11(9.8%)	8(7.1%)

Source: Field data, 2018

Results from Table 4.8 revealed that 47(41.96%) of the student respondents indicated "sometimes" that e-learning was a useful medium for self-learning, while 31(27.68%) respondents indicated 'never' to this statement, followed by 19 (16.96%) who indicated 'often' to the assertion. In order to establish whether e-learning has developed students' knowledge and skills in ICT, out of 112 respondents, 37(33%) indicated 'always', while 25(22.3%) of the respondents indicated 'never', followed by 20(17.9%) and 19(17%) who indicated rarely and often respectively. It was evident from the results that e-learning has developed the majority of students' knowledge and skills in ICT. To ascertain whether students preferred to have some courses online rather than face-to-face learning 40(35.7%) indicated never, followed by 38(33.9%) respondents who admitted that they sometimes preferred online learning to face-to-face, only 21(18.8%) responded to rarely. This was a clear indication that the majority of the

student respondents preferred face-to-face learning to e-learning. The students were asked to state whether they needed training before using the e-learning platform. With this 43(38.4%) respondents indicated ‘always', while 35(31.3%) of the respondents responded to sometimes, only 2(1.8%) responded to never. This indicated that the majority of the students need training on e-learning. In an attempt to find out whether learning with computers was difficult, or not 78 (69.6%) of the respondents indicated it was difficult sometimes, however, 13(11.6%) and 12(10.7%) indicated ‘rarely' and ‘often' respectively. From the results, the majority of the students found it difficult to learn with computers.

4.10: Lecturers’ Attitude Towards E-teaching

Huang and Liaw (2005) established that lecturers’ attitudes towards e-learning influence their acceptance of the usefulness of e-learning as well as its integration into teaching. As part of the research objectives, the lecturers were also asked to indicate their attitude towards e-teaching. Table 4.9 displays the results.

Table 4.9: Lecturers' Attitude Towards E-teaching

Lecturers N = 78					
Lecturers' attitude towards e-teaching	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Conventional teachings are far better than the online methods	3(3.8%)	15(19.23%)	6(7.7%)	25(32.1%)	29(37.17%)
I have the right teaching skills to use e-teaching devices	13(16.7%)	28(35.9%)	11(14.1%)	11(14.1%)	15(19.2%)
I am comfortable with the e-teaching	17(21.8%)	5(6.4%)	3(3.8%)	47(60.3%)	6(7.7%)
Technology use makes e-teaching exciting	2(2.6%)	1(1.3%)	6(7.7%)	48(61.5%)	21(26.9%)
The use of e-teaching devices is always cumbersome and frustrating for me	27(34.62%)	11(14.1%)	5(6.41%)	4(5.13%)	31(39.74%)
I am always ready to change my courses to e-format	8(10.3%)	3(3.8%)	13(16.7%)	26(33.3%)	28(35.9%)
I have received adequate training on e-teaching	43(55.12%)	2(2.6%)	3(3.8%)	12(15.38%)	18(23.1%)

Source: Field data, 2018

The first question in this section tried to find out if conventional teachings are far better than the online methods. As reported in the above table, 29(37.17%) respondents strongly agreed that conventional teachings were far better than the online methods, followed by 15(19.23%) who disagreed with this fact, while 6(7.7%) remained neutral. From the responses, the majority of the lecturers indicated that conventional teachings were far better than the online methods.

The respondents were asked to indicate whether they had the right teaching skills to use e-teaching devices. From the responses, 28(35.9%) respondent disagreed with the statement, followed by 15(19.2%) respondents who claimed that they had the right skills to use e-teaching devices, while 11(14.1%) respondents remained neutral. From these results, it can be concluded

that the majority of the respondents did not have the right teaching skills to use e-teaching devices. The researcher sought to find out whether the lecturers were comfortable with e-teaching. With this, 47 (60.3%) indicated agreed that they were comfortable with e-teaching, however, 17(21.8%) respondents strongly disagreed with the statement, only 3(3.8%) who indicated neutral. It can be confirmed from the results that the majority of the lecturers were comfortable with e-teaching. The respondents were asked to indicate whether the use of e-teaching devices is always cumbersome and frustrating, and according to the results, 31(39.74%) respondents strongly agreed to that statement, another 27(34.62%) respondents strongly disagreed with the claim and 5(6.41%) remained neutral to the statement. It can be inferred that a significant number of lecturers considered e-teaching devices as cumbersome and frustrating.

The respondents were requested to indicate their readiness to change print-materials to electronic format. The findings reported that 28(35.9%) of the respondents strongly agreed that they were always ready, only 8(10.3%) strongly disagreed with the statement and 5(6.41%) remained neutral to the statement. It can be deduced that the majority of lecturers were ready to change their print- materials to e-format. In order to establish whether lecturers have received adequate training on e-teaching or not, 43 (55.12%) indicated that they had not received any adequate training, while 18(23.1%) agreed with the assertion and only 3(3.8%) remained neutral.

It was evident from the results that the majority of the lecturers have not received adequate training on e-teaching.

4.11. Internal Factors Affecting Students E-learning

Latifah and Ramli (2005) confirmed in their study that for a successful adoption of e-learning system, an internal support should be considered as one of the main factors since it can impede e-

learning implementation. This section of the study was to find out the internal factors affecting students' e-learning. The results are presented in Table 4.10 below.

Table 4.10: Internal Factors Affecting Students E-learning

Students N = 112					
Internal factors affecting e-learning	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
The University has enough computers for the e-learning students	36(32.1%)	1(1%)	3(2.7%)	8(7.1%)	64(57.1%)
I have not encountered problems when logging to the e-learning e-platform	5(4.5%)	3(2.7%)	17(15.2%)	37(33%)	50(44.6%)
Lecturer's inability to send online courses on time affect my performance	3(2.7%)	3(2.7%)	2(1.8%)	17(15.1%)	87(77.7%)
It is difficult to download courses due to poor internet connectivity	32(28.6%)	2(1.8%)	4(3.5%)	13(11.6%)	61(54.5%)
There is technical support services for e-learning students	35(31.2%)	47(42%)	3(2.7%)	14(12.5%)	13(11.6%)
There is adequate internet services for e-learning	79(70.5%)	2(1.8%)	3(2.7%)	7(6.3%)	21(18.7%)
The university is supportive of e-learning	3(2.7%)	28(25%)	4(3.6%)	26(23.2%)	51(45.5%)

Source: Field data, 2018

The respondents were asked to show whether the university had enough computers for the e-learning students. From the responses 64(57.1%) respondents strongly agreed that the university had enough computers for the students, however, 36(32.1%) strongly disagreed with the statement while 3(2.7%) remained neutral. The results indicated that the university had enough computers to support e-learning students. The respondents were asked to indicate if their lecturers' inability to send online courses on time affects their performance. From the responses, 87(77.7%) respondents strongly agreed to the assertion, while only 3(2.7%) respondents disagreed with the statement and another 2(1.8%) respondents remained neutral. The

overwhelming number of respondents agreed to the assertion that lecturers' inability to send online courses on time affects students' performance. The findings revealed that 61(54.5%) respondents strongly agreed that it was difficult to download courses due to poor internet connectivity, followed by 32(28.6%) respondents who strongly disagreed with the question. From the responses, it was evident that the majority of the student respondents found it difficult to download online courses owing to poor internet connectivity. The researcher again sought to find out whether there was a technical support service for e-learning students. It was disclosed that 47(42%) of the respondents disagreed with the statement, however, 14(12.5%) respondents agreed to the question that there was a technical support service for e-learning students. From the results, one can confirm that there was no technical support service for e-learning students.

In order to ascertain whether there is an adequate internet service for e-learning, 79 (70.5%) respondents strongly disagreed with the statement, only 21(18.7%) respondents agreed that there was adequate internet services for e-learning students. It can be deduced from the result that there was inadequate internet services for e-learning students. According to the findings, 51 (45.5%) of the respondents strongly agreed that the university supports e-learning, while, 28(25%) of the respondents disagreed, only 4(3.6%) remained neutral to the statement. This was an indication that the university supports the adoption of e-learning.

4.12: Internal Factors Affecting E-teaching

Wolcott (2003) outlined some challenges confronting lecturers, as several hours required for planning and improvement of the course content as well as learning and mastering new technology. As one of the objectives, this part of the study sought to ascertain whether internal factors affecting e-teaching or not.

Table 4. 11: Internal Factors Affecting E-teaching

Lecturers N = 78					
Internal factors affecting e-teaching	**Strongly Agree**	**Agree**	**Neutral**	**Strongly Disagree**	**Disagree**
There are teaching incentives for lecturers	-	-	10(12.8%)	27(34.6%)	41(52.6%)
There are inadequate facilities for e-teaching	31(39.7%)	13(16.7%)	3(3.8%)	9(11.6%)	22(28.2%)
There is technical support for lecturers	13(16.7%)	14(17.9%)	6(7.7%)	41(52.6%)	4(5.1%)
There is coordination among the lecturers to develop e-learning courses	4(5.1%)	9(11.5%)	5(6.4%)	7(9%)	53(68%)
Most lecturers do not possess the ICT competencies required to use the e-teaching facilities	25(32%)	28(36%)	1(1.3%)	19(24.3%)	5(6.4%)
Unstable power supply distracts e-teaching and learning	19(24.4%)	24(30.8%)	3(3.8%)	6(7.7%)	26(33.3%)
Internet connectivity on campus supports e-learning and teaching	38(48.7%)	7(9%)	9(11.5%)	17(21.8%)	7(9%)

Source: Field data, 2018

The respondents were asked to indicate whether there were teaching incentives for lecturers.

From the responses, 41(52.6%) of the respondents disagreed that there were no teaching incentives for lecturers, only 10(12.8%) respondents were neutral.

From the responses, it can be concluded that the majority of the lecturers gave an affirmative response to the statement. The researcher tried to find out if there were inadequate facilities for e-teaching and with this statement, 31(39.7%) respondents strongly agreed that there were inadequate facilities for e-teaching, while 22(28.2%) respondents disagreed with the statement, another,3(3.8%) remained neutral. From the responses, it can be said that the university had inadequate facilities for e-teaching. The lecturers were presented with certain statements to indicate whether there was technical support for lecturers. Out of the 78 respondents, 41(52.6%)

strongly disagreed with the statement, however, 14(17.9%) indicated that there was technical support for lecturers, while 6(7.7%) remained neutral. From the results, one can conclude that there was little technical support for e-learning lecturers. The lecturers were requested to indicate whether they possessed the ICT competencies required to use the e-teaching facilities or not.

From the results, 28(36%) respondents agreed that they did not have the ICT competencies required to teach while, 19(24.3%) respondents strongly disagreed with the statement that they possessed the ICT competencies required to use the e-teaching facilities, only 1(1.3%) respondent remained neutral. It can be inferred that the majority of the lecturers did not possess the ICT competencies required to use the e-teaching facilities.

The lecturers were asked again to indicate whether unstable power supply distracts e-teaching and learning. With this 26(33.3%) of the respondents disagreed, while 19(24.4%) respondents strongly agreed to the statement and 3(3.8%) remained neutral. This affirmed that the unstable power supply does not distract e-teaching and learning. Regarding internet connectivity on the university campus, the lecturers were asked to indicate if internet connectivity on campus supports e- teaching and learning. The data indicates that 38(48.7%) of the respondents strongly agreed to the assertion, while 17(21.8%) respondents strongly disagreed with the statement that internet connectivity did not support e- teaching and learning. From the responses, it can be inferred that the internet connectivity was not bad on the university campus.

4.13 External Factors Affecting Students E-learning

This part presents the fifth objectives of the study, which was to ascertain the external factors affecting students' and lecturers' in the use of e-learning. In order to answer the question, the

following terms were used; SO = **Strongly Opposed; SO = Somewhat Opposed; N= Neutral; SF= Somewhat in favour; and SF= Strongly in Favour**.

Table 4.12: External factors affecting students E-learning

Students N = 112					
External factors affecting e-learning	**Strongly opposed**	**Somewhat opposed**	**Neutral**	**Somewhat in favour**	**Strongly in favour**
It is difficult to communicate with their lectures when at home	41(36.6%)	7(6.3%)	12(10.7%)	30(26.8%)	22(19.6%)
It is difficult to access e-resources from the e-platform when at home	4(3.6%)	20(17.9%)	9(8%)	41(36.6%)	38(33.9%)
The cost of internet fees/charges from the private cafe' impede e-learning	45(40.2%)	9(8%)	5(4.5%)	36(32.1%)	17(15.2%)
Erratic power supply at home hinders my use of e-learning resources	7(6.3%)	38(33.9%)	16(14.3%)	46(41%)	5(4.5%)
Lack of access to the internet facilities when at home discourages e-learning	33(29.4%)	13(11.6%)	6(5.4%)	28(25%)	32(28.6%)
The cost of e-learning equipment inhibit learning	9(8%)	12(10.7%)	5(4.5%)	54(48.2%)	32(28.6%)

Source: Field data, 2018

The respondents were asked to indicate external factors affecting e-learning. As illustrated in the Table 4.12 above, 41(36.6%) of the respondents strongly opposed to the statement while 30(26.8%) of the respondent indicated somewhat in favour and 12(10.7%) remained neutral.

It is clearly seen that the majority of the students can communicate with their lectures when at home to discuss issues relating to their academic activities.

The researcher sought to find out whether it was difficult for students to access e-resources from the e-platform when at home. From the results 41(36.6%) of the respondents indicated somewhat

in favour to the statement, while 20(17.9%) of the respondents indicated somewhat opposed to the assertion, however, 9(8%) remained neutral to the statement. From the data, it can be concluded that it was difficult for students to access electronic resources from home.

The students were asked to indicate whether the cost of internet fees/charges from private cafe' impeded e-learning. The results showed that 45 (40.2%) of the respondents responded to strongly opposed, while 36(32.1%) of the respondents indicated somewhat in favour to the assertion, another 5(4.5%) of the respondents remained neutral. From the results, it can be confirmed that the cost of internet fees/charges from private cafes' did not deter students from visiting the e-platform for information. The respondents were requested to indicate whether erratic power supply at home hindered their use of e-learning resources. From the responses, 46 (41%) of the respondents responded to somewhat in favour to the statement, another 38 (33.9%) of the respondents answered to somewhat opposed to the statement, however, 16(14.3%) respondents remained neutral to the statement. It was evident that erratic power supply at home hinders the use of e-learning resources. The students were requested to show whether lack of access to the internet facilities from home discourages e-learning. According to the results, 33 (29.4%) of the respondents responded to strongly opposed to the statement, however, 32(28.6%) of the respondents answered to strongly in favour, only 6(5.4%) respondents remained neutral to the statement. It can be deduced that the lack of access to internet facilities when at home did not discourage e-learning. The students were asked to indicate whether the cost of e-learning equipment inhibited e-learning. From the responses, 54(48.2%) respondents responded to somewhat in favour while, 12(10.7%) respondents indicated somewhat opposed to the statement, and 5(4.5%) of the respondents remained neutral. It can be inferred from the results that the cost of e-learning equipment inhibits e-learning.

4.14: External Factors Affecting E-Teaching

Yusuf (2006) outlined some factors that hinder the implementation of e-learning in Africa as; irregular power supply, lack of internet facilities, inadequate computers, lack of telecommunications facilities as well as postal services. This section was to discover the external factors affecting e-teaching at the Valley View University.

Table 4.13: External Factors Affecting E-teaching

Strongly Disagree = SD; Disagree =D; Somewhat Disagree = SWD; Neither Agree nor disagree =NAD; Somewhat Agree =SWA; Agree =A and Strongly Agree = SA.

Lecturers N = 78							
External factors affecting e-teaching	**SD**	**D**	**SWD**	**NAD**	**SWA**	**A**	**S A**
The high cost of e-learning devices and data bundles impedes e-teaching	5(6.4%)	2(2.6%)	1(1.3%)	7(8.9%)	3(3.8 %)	21(27%)	39(50%)
The influence of digital divide affects e-learning and e-teaching	28(36%)	5(6.4%)	2(2.6%)	3(3.8%)	21(27%)	15(19.2%)	4(5%)
Telecommunication policies and regulations hinder e-teaching	8(10.3%)	6(7.7%)	3(3.8%)	6(7.7%)	5(6.4%)	8(10.3%)	42(53.8%)
Inability to get access to the internet from home impedes e-teaching	8(10.3%)	17(21.7%)	2(2.6%)	11(14.1%)	3(3.8%)	19(24.4%)	18(23.1%)
Difficulty in sending courses online to students when at home inhibits e-teaching	29(37.1%)	7(9%)	2(2.6%)	8(10.3%)	12(15.38%)	16(20.5%)	4(5.12%)
The issues of copyright hinder e-learning	5(6.4%)	12(15.4%)	3(3.8%)	1(1.3%)	2(2.6%)	15(6.4%)	40(51.3%)

Source: Field data, 2018

Similarly, the lecturers were requested to show whether the high cost of e-learning devices and data bundles impedes e-teaching. The responses revealed that the majority of the respondents

39(50%) strongly agreed, while 5(6.4%) strongly disagreed and 7(8.9%) of the respondents remained neutral. This is an indication that high cost of e-learning devices and data bundles impedes e-teaching. The researcher sought to find out whether the influence of the digital divide affects e-teaching. The results indicated that 28(36%) of the respondents strongly disagreed while 21(27%) indicated somewhat agreed and 3(3.8 %) remained neutral to the statement.

It can be concluded that the influence of the digital divide does not have influence on e-teaching. With regard to whether telecommunication policies and regulations hinder e-teaching, out of the 78 lecturers,42 (53.8%) respondents strongly agreed, while, 8(10.3%) strongly disagreed and 6(7.7%) remained neutral. It can be inferred from the data that telecommunication policies and regulations hinder e-teaching. The researcher again sought to find out whether lecturers inability to get access to the internet when at home impeded e-teaching. From the results, it was revealed that 19(24.4%) of the respondents indicated agreed to the statement, followed by 17(21.7%) respondents who indicated disagreed, and 11(14.1%) of the respondents remained neutral to the statement. From the responses, it can be deduced that lecturers inability to get access to the internet from home impedes e-teaching. The lecturers were asked to indicate whether difficulty in sending courses online to students when at home inhibits e-teaching. From the responses, it was revealed that 29(37.1%) indicated strongly disagreed, while 16(20.5%) agreed that it was difficult to send courses online to students when at home. It can be inferred that the majority of the respondents found it easy to send courses online to their students when at home. The respondents were requested to indicate whether the issues of copyright affect e-teaching. From the responses, 40(51.3%) of the respondents indicated strongly agreed to the statement, however, 12(15.4%) of the respondents, disagreed only 1(1.3%) respondents remained neutral. It can be concluded from the responses that the issues of copyright hinder e-teaching.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

This research study was carried out to investigate electronic learning and teaching by distance education students' and lecturers of Valley View University. In the context of this research study, electronic learning (E-learning) is "the use of Information and Communication Technology (ICT) to deliver information for education where lecturers and students are separated by distance, time, or both in order to enhance the learner's learning experience and performance (Keller et al., 2007 & Tarhini et al., 2016)".

5.2 Discussion of Findings

The discussion of the findings of this study was carried out under the following subheadings:

1. Students' perception towards e-learning
2. Lecturers' perception towards e- teaching
3. Students' perceived ease of use of e-learning
4. Lecturers' perceived ease of use of e-teaching
5. Students Attitude towards e-learning
6. Lecturers attitude towards e-teaching
7. Internal factors affecting e-learning
8. External factors affecting e-learning

5.3 Students' Perception Towards E-learning

In the view of Sarfo and Ansong-Gyimah (2010), there is disparity of perception between students and lecturers regarding the use of technology in learning and teaching in the instructional method which need to be addressed by lecturers as well as instructional system designers in Ghana, failure to develop e-learning integrated instruction to expedite dynamic teaching and learning may lead to ineffectiveness.

This research was conducted to find out electronic teaching and learning by distance education students and lecturers of Valley View University (VVU). From Makura's (2014) point of view, students' perceptions of the use of e-learning in a higher education reported that the use of e-learning by students has affected their academic performance positively. As the first objective, the study tried to establish students' perception towards e-learning by distance education students' of the Valley View University (VVU). The study established that the majority of the students (38.4%) had access to e-learning resources provided by the university.

This result is also in line with the previous studies by Sethi and Panda (2012; Al-Fahad, 2009). For example, Sethi and Panda (2012) which reported that about 92.18 % of the respondents preferred to use e-learning resources as compared to print documents in spite of some restraints in their effective use. Al-Fahad (2009) added that the "majority of students supported the idea that wireless networks increase the flexibility of access to resources of learning independently in any place". The finding on students' interaction with their colleagues through the e-learning platform revealed that majority (43.8%) of the respondents indicated that they could interact with their colleagues via the e-platform. The outcome does not support the studies carried out by

Bigelow (1999; Salmon, 2000) which disclosed that "lack of communication, failure of online students to interact with their colleagues impeded students' academic performance.

Regarding the difficulty and frustrations that students experience when using e-learning platform revealed that the majority of the students (42%) faced some difficulties and challenges. This revelation is confirmed by Hara and Kling (1999) who pointed out common frustrations confronting students as; "lack of prompt feedback; ambiguous instructions on the web; and technical problems." The study reported that the majority of the students could interact with their lecturers through the e-learning platform. Frequent interaction among distance students is a key component that facilitates their learning and also improves academic performance as well. The findings of this present study do not support the studies of Deb (2011 & Weissman, 2003) which affirmed that the absence of interaction between a student and a lecturer generates a feeling of loneliness, and this feeling leads to a negative perception.

Concerning the issue of internet network connectivity in some departments, it was revealed that internet connectivity was poor in some departments. The poor nature of the internet can be linked to low bandwidth in the university. The present study does not support with the previous studies done by Tella, Tella, Ayeni, and Omoba (2007) who revealed that internet network connectivity allows students access to information for their studies and this paves way for academic excellence.

5.4 Lecturers' Perception Towards E-teaching

From Roger's (2005) perspective, "perception is critical in adopting an innovation, and that an individual or a group of people would adopt an innovation only if they perceived it to be better than the existing one". The findings revealed that a significant number of lecturers admitted that

e-teaching encourages learning and also eradicates geographical barriers between a lecturer and students; this positive perception has led them to embrace e- teaching as the modern method of imparting knowledge to students. The result is in line with the study of Fozdar and Kumar (2007) who reported that the use of "technology in teaching and learning has helped overcome the physical distance between lecturers and students and has also facilitated the flexible delivery of education at a distance, any place, anytime". The study also revealed that the majority of the lecturers felt comfortable when teaching with e-learning devices.

The result of this present study does not support the finding of Lion and Start (2010) which indicated that about 65% of the lecturers admitted that they were comfortable with the traditional method of teaching than using the technology aided method to accomplish teaching results.

The findings of the current study reported that a significant number 65.4% of the lecturers' could communicate effectively with their students through the e-learning platform. The result is not in line with Mclean's (2006) study which reported that the major concern with the distance education students was the lack of frequent communication between students and their lecturers.

5.5 Perceived Ease of use of E-learning

In order to determine the perceived ease of use of e-learning, it was revealed that the majority of the students found it easy to learn how to use the e-learning platform. This implies that students' preparedness to use the e-learning platform may also emerge from their readiness to use the new system. The outcome of this present study does not corroborate that of Oproiua (2014) who findings established that the majority of the students at the University Politehnica of Bucharest, Romania did not use the e-learning platform at all due to its difficulty.

Another revelation from the results indicated that a significant number of students (53.6%) found it difficult to load and download information. The inability of students to load and download could be attributed to their lack of adequate training on how to load and download information. The finding of the present study corroborates that of Sinha, Singha, Sinha (2011) who affirmed that users are confronted with difficulties when downloading articles as well as conducting searching. The findings of navigating through the e-learning platform disclosed that the majority of the students found it easy to navigate through the e-learning platform.

This result is not in line with the study of Omosekejimi, Eghworo, and Ogo (2015) who asserted that users struggled to navigate through the electronic platform for the resource as a result of inadequate training for e-learning. It was revealed from the findings that the majority of the students could log onto the Online Learning Forum Platform (OLFP) and search for information without any effort. This result is in contrast with the study carried out by Mohd, Mohamad, and Krishnan (2011) whose study established that students found it difficult to log onto the system due to server down, poor signal as well as poor internet connectivity.

5.6 Perceived Ease of use of E-teaching

In a relation to perceived ease of use of e-teaching, the majority 39(50%) of the lecturers indicated that it was very difficult to search through the e-learning platform for information.

The difficulties that lecturers faced could be ascribed to as poor internet connectivity, their lack of searching skills or low knowledge in computing. This finding confirmed the study carried out by Wanyembi (as reported in Tarus (2011) who found out that majority of lecturers in Kenyan universities had inadequate knowledge in ICT and e-learning skills, the reason being that majority of them were not trained in an ICT environment. The result on sending/uploading

online information to students revealed that it was not difficult for lecturers to send online information to their students. This finding is a complete deviation from the study of Kang'ethe, Simiyu, Kihoro, and Gichuru (2008) who asserted that lecturers at the Jomo Kenyatta University of Agriculture and Technology (JKUAT) found it difficult to send/upload teaching materials to their students. Communication plays a key position in all human activities. In the academic field, communication between students and lecturers facilitates teaching, learning, and performance.

On frequent interaction with students, the findings revealed that most of the lecturers found it very easy to interact with their students through the e-learning platform. The finding is in line with the study of Paiva (2010) who reported that the development of e-learning platforms had enhanced interaction and communication between students and lecturers and also contribute to knowledge sharing among students and lecturers.

5.7 Students' Attitude Towards E-learning

The finding revealed that the use of e-learning has developed students' knowledge and skills in ICT. This was an indication that students have a positive attitude towards e-learning and also have adequate searching skills. This finding does not support the study of (Smith, Caputi & Rawstorne, 2000; Govindasamy, 2002 & Rosenberg, 2001) whose studies claimed that students have negative attitudes toward online learning. One can conclude that their negative attitude towards e-learning could be attributed to their lack of computer skills or inability to use the e-learning devices which may serve as a barrier. The findings of this study revealed that the majority of the students preferred face- to- face learning to e-learning. The result of the present study is not in line with the study of Djajalaksana (2011) who indicated that students preferred

e-learning because they can ask question(s) related to their course materials at any time and get immediate feedback or answer. It emerged from the current study that the majority of the respondents admitted that they needed training on e-learning and teaching. The result of this study is a complete deviation from the study of Carter (2013), who indicated that the majority of the students had received sufficient training, seminars as well as orientation on how to use the e-learning platform. This study established again that the majority of the respondents indicated that they found it difficult to learn with computers. This is a clear indication that a quite number of students lack computer skills which need to be improved. The finding also supports the study of Gakibayo, Anna, Ikoja-Odongo, and Okello-Obura (2013) who acknowledged that lack of computer skills, the absence of information literacy skills and inadequate computers for learning were among the prominent factors that contribute to the poor attitude of students towards the use of e-learning facilities.

5.8 Lecturers' Attitude Towards E-teaching

Huang and Liaw (2005) established that lecturers' attitudes towards e-learning influence their acceptance of the usefulness of e-learning as well as its integration into teaching. The results of the present study found out that the majority of the lecturers indicated that conventional teachings were far better than the online methods. It is obvious that when people have a positive attitude or behaviour towards a new system, they accept to learn it, while those with a negative attitude would stay back. The finding is in line with the study conducted by Singleton et al. (2004) that lecturers' preferred traditional teaching to delivering content through the internet for the reason that they were more familiar with the face-to-face method of teaching.

Another evidence from the finding disclosed that a quite number of the lecturers indicated that they lacked the right teaching skills to use e-teaching devices. This confession could be attributed to the failure of the institution to organize adequate training, seminars, workshops, and orientation to equip them or their unwillingness to adopt the use of e-teaching devices. This affirmed a result from the study carried out by Bonk (2000) that lecturers need to have the right teaching skills to be able to adopt the use of technology in teaching.

The result of this study indicated that a significant number of lecturers considered e-teaching devices as cumbersome and frustrating. For e-learning to be successful in an academic institution, lecturers have to change their attitudes, habits as well as belief towards the new technology. This is a complete deviation from a study by Liaw et al. (2007) which indicated that e-learning in the academic institution is characterized by the use of multimedia constructs, and these devices make the learning process more active, enjoyable and interesting.

The result from the present study revealed that the majority of the lecturers are ready to change their print- materials to electronic format. Lecturers' readiness, their experience in technology and the availability of the required technology in the institution could be attributed to their readiness.

This finding is in contrast with the study of Nihuka and Voogt (2012) that lecturers were reluctant to convert their courses into an electronic format and in some occasions, they prefer the traditional methods despite having access to newer technologies.

It emerged from the findings that 55.12% of the lecturers admitted that they had not received adequate training on e-teaching. This result supports the studies of Toprakci (2006) and Pelgrum

(2001) who asserted that the integration of ICT in teaching and learning sometimes failed due to inadequate training opportunities. Alazam et al., (2013) corroborated the assertion made by Pelgrum (2001) and added that lecturers lacked adequate technological skills due to the limited provision of pre-service and in-service training opportunities. According to the study, these were some of the factors affecting the effective use of e-teaching devices by lecturers.

5.9 Internal Factors Affecting E-learning

Internal factors are factors that can impede or facilitate the rapid development of e-learning in an academic institution. Latifah and Ramli (2005) confirmed in their study that for a successful adoption of e-learning system, internal factors should be considered as factors that can impede e-learning implementation. The finding established that an overwhelming number of students' representing 77.7% admitted that lecturers' inability to upload/send online courses on time affects their academic performance. This result is in line with Chawinga (2016) who observed that "there was delayed feedback of assignments and release of the end of semester examination results, and these attitudes of some lecturers affect the performance of e-learning students".

From the study, it was found out that the university has enough computers to support students who enrolled in the e-learning system. Availability and accessibility of adequate computers are some of the key factors that facilitate and encourage the adoption of e-learning in academic institutions. This finding does not support the study of Mtebe and Mtebe (2014; Amengor,2011) which stated that the insufficient number of computers, overhead projectors, printers and scanners as well as insufficient instructional software were some of the internal factors inhibiting e-learning adoption in academic institutions. The results confirmed that a significant number of respondents lamented on poor internet services on campus. For a successful implementation of e-

learning in an academic institution, there should be adequate and reliable internet services for all students to have access. This will go a long way to improve their academic performance as well. The finding supports Mohd, Mohamad, and Krishnan (2011) study which reported that poor internet connectivity and slow servers were some of the challenges users faced when accessing electronic resources in the University of Technology, Malaysia.

5.10 Internal Factors Affecting E-teaching

The availability and accessibility of resources and good internal conditions can be understood by the capacity to get access to the resources and acquire the knowledge needed to use the services (Al-Awadhi & Morris, 2008). In order to determine whether there were incentives or motivational packages for lecturers for e-teaching, the finding established that there were no teaching incentives or motivational packages for lecturers. This finding is consistent with the studies of (Tedla, 2012; Tabata & Johnsrud,2008; Maguire, 2005) which indicated that lack of monetary incentives for developing online teaching courses, lack of motivational packages, lack of inducements, lack of promotion and unrealistic policies of e-learning were stated as some of the factors discouraging e-teaching. The availability of technical support is one of the key factors that facilitate the adoption of e-learning and teaching in an academic institution. The finding of the present study revealed that the university lacked technical support for lecturers. The result of this current study confirms the studies carried out by Gomes (2005; Ismail, 2002; Ministry of Education, 2002) which reiterated that lack of technical support services and administrative support have been a challenge to e-learning adoption in academic institutions. The majority of the lecturers revealed that they did not have ICT competencies required to use the e-teaching devices. This outcome supports the study of Onasanya et al., (2010) which affirmed "that most tertiary institutions' lecturers in Nigeria lacked adequate pedagogical knowledge for effective

utilization of ICT resources for teaching. The result is also in consonance with the study of Alazam et al., (2013) which indicated that inadequate technological skills, low knowledge in computer applications of the lecturers, lack of adequate ICT resources, and limited provision of pre-service and in-service training opportunities were reported as some of the factors affecting e-teaching.

Another finding of the study also established the fact that unstable power supply did not distract e-teaching and learning in the university since there was a standby generator. The finding does not support the studies of Rambe and Mawere (2011; Gunga,2010) which listed some factors affecting e-teaching in tertiary institutions as erratic power supply, inadequate e-teaching facilities, the high cost of a personal computer(s) and software. The outcome of the study affirmed that internet connectivity on campus supports e- teaching. This result disagreed with the studies of Oye et al. (2011; Ndume et al, 2008) which listed similar challenges as low internet bandwidth, poor internet connectivity, lack of ICT training and threats of computer viruses as some of the factors hindering the use of e-learning in Nigeria, Tanzania, and Uganda.

5.11 External Factors Affecting E-learning

E-learning and teaching may help to open up new channels for the traditional teaching model but there are many external factors that make e-learning ineffective. The research revealed that there are several external factors affecting e-teaching and e-learning at the VVU. The results showed that the majority of the students admitted that they could communicate with their lecturers when they were at home. Constant communication is one of the key components that can facilitate and improve students learning activities. Communicating with lecturers when at home enhances learning and also improves performance in the e-learning environment. The finding of this study

did not affirm that of Weissman (2003; Arabasz & Baker, 2003) which stated that the lack of communication between students and lecturers as well as immediate feedback from lecturers inhibits e-learning. From the findings, it was established that students found it difficult to access electronic resources when they were at home. The finding of this study affirmed the study of Prangya and Rabindra (2013; Bingimlas, 2009; Oliver, Bradley & Boyle, 2001; Davis & Danning (2001) which reported that difficulty to access e-resources, internet connectivity and affordability were some of the challenges impeding e-learning. Marfo and Okine (2010) also supported the views of previous authors that internet facilities on the university campus should be extended to both residential and non-residential areas for students to have adequate access to the internet facilities; this will also go a long way to improve performance. From this revelation, the university management has to extend the internet facility to support distance education students as well. In view of the above finding, it is, therefore, necessary for the university authority to find a way to improve and extend the internet facility to those residing off-campus in order to facilitate learning beyond the university campus. This will also provide students opportunity to gain access to varieties of information which may not be limited to what lecturers provide on the e-platform. The result of the study established that the cost of internet fees/charges from private cafes' did not impede e-learning. Even though, some students had different views concerning the charges, yet, the majority indicated that the cost did not deter them from visiting the e-platform for information. The finding deviated from the study of Noe (2014) assertion that accessing information from the e-learning platform through private internet café is costly for students to bear, therefore; it discourages them from visiting the e-learning platform.

5.12 External Factors Affecting E-teaching

This section of the study sought to find out the external factors affecting e-teaching at the Valley View University. These factors were considered to be the key factors that could facilitate teaching. From the lecturers' perspective, it was obvious that a significant number of lecturers indicated that the digital divide did not have any influence on e-teaching. This finding is not in line with Waycott et al., (2010) whose studies claimed that the digital divide compels lecturers to resist from using e-teaching devices as against students who are receptive and enthusiastic.

One of the factors that affect e-teaching and learning in tertiary institutions in Ghana is inadequate policy regulations governing telecommunication system. The telecommunication policies and regulations are goals established to monitor all the activities of various communication networks in the country. This finding confirmed the study of Luboobi (2007) who concluded that regulatory frameworks for the telecommunications, ICT policies are still restrictive in some academic institutions in Africa. The introduction of e-learning into higher educational institutions has not only revolutionized the method of learning and teaching but has also compelled lecturers to engage in many academic activities on various university campuses across the globe. The finding of this study proved that sending courses online to students by lecturers when at home was not difficult. This outcome disagreed with the study of Cornelius and Macdonald (2008) which reported that lecturers in the UK were having it difficult in sending courses online to their students due to poor internet connectivity. Copyright is the right owned by an author or creator of a particular piece of work. It exists to permit the author(s) to monitor the use of their handiwork. It applies to all recorded works, including information delivered electronically through the websites. The finding revealed that a significant number of lecturers (51.3%) admitted that the issues of copyright hinder e-teaching. This finding is in consonance

with the study carried out by Abdelraheem (2006) who affirmed that the issues of copyright hinder e-learning at institutions of higher learning in Oman.

5.13 Chapter Summary

This chapter provided the findings of the study in accordance with the objectives of the study. The analyses of the study were done based on the structured questionnaires. The study found out that some students and lecturers had a positive perception towards e-learning.

CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

6.1 Introduction

This chapter presents a summary of the findings of the study, based on the objectives and findings resulting from the outcomes. It also consists of recommendations made based on the study results. The following were the specific objectives of the study;

1. To determine students and lecturers perception of e-learning and e-teaching at the Valley View University (VVU).

2. To find out the perceived ease of use of Online Learning Forum Platform (OLFP) by students' and lecturers'.

3. To ascertain students and lecturers attitude towards e-learning and teaching.

4. To determine internal factors that affected lecturers and students on e-learning and e- teaching

5. To find out external factors that affected lecturers and students on e-learning and e- teaching

6.2 Summary of Findings

The introduction of e-learning and teaching in the distance education system has been accepted as a self- learning medium in various academic institutions around the globe due to its numerous benefits for the students and the parent institutions as a whole. E-learning has allowed students to combine work and study at the same time without necessarily coming to sit in the traditional lecture room to acquire knowledge.

The following were the main findings that emerged from the study.

6.2.1 Students and Lecturers Perception Towards E-learning and E-teaching

The results of the study revealed that the majority of the students had a positive perception towards e-learning as against the lecturers. It was found out that the majority of the students could interact with their course mates through the Online Learning Forum Platform (OLFP) and discuss academic issues. Majority of the faculty members acknowledged the fact that e-teaching encourages learning and removes the distance between a lecturer and students.The findings reported that a significant number of the lecturers were comfortable with e-teaching devices.

The results showed that the majority of the students found it easy to learn how to use the Online Learning Forum Platform (OLFP).

6.2.2 Perceived Ease of use of Online Learning Forum Platform (OLFP) by Students and Lecturers

It was found out that the majority of the students found it easy to navigate through the Online Learning Forum Platform (OLFP). The findings also revealed that lecturers could interact with their students on the Online Learning Forum Platform (OLFP). The study found out that only a handful of students preferred online learning to the traditional method of learning. Similarly, it was revealed that the majority of the lecturers preferred traditional teachings to deliver content through the internet for the reason that they were more familiar with face-to-face teaching than the online methods.

6.2.3 Students and Lecturers Attitude Towards E-learning and Teaching

Attitude refers to a mental position or feeling(s) with regard to an object or a person. Individual with a positive attitude towards e-learning have a stronger intention to use the system and thus,

are more willing to use it. The study revealed that the majority of students and lecturers had a positive attitude towards e-learning and teaching, however, some of the students, as well as lecturers, still found it difficult to use the Online Learning Forum Platform (OLFP).

6.2.4 Internal Factors Affecting Students and Lecturers on E-learning and E- teaching

The findings of the study revealed that majority of the students and lecturers found it difficult to load and download information from the Online Learning Forum Platform (OLFP) due to poor internet services and this impedes learning and teaching. Majority of the lecturers indicated that internet connectivity was not bad on the main university campus.

The study revealed some internal factors affecting e-learning and teaching at the university as; lack of e-learning and teaching facilities, technical expertise and low ICT skills.

6.2.5 External Factors Affecting Students and Lecturers on E-learning and E- teaching

The majority of the students indicated that erratic power supply at home inhibits e-learning. Some students also admitted that the cost of computer equipment hinders e-learning.

Some students revealed that they can communicate with their lectures when at home to discuss issues relating to their studies. The study revealed that the digital divide did not have any negative influence on e-teaching.

A significant number of lecturers disclosed that telecommunication policies and regulations hinder e-teaching. Interestingly, both students and the lecturers revealed that they found it difficult to use the internet when at home, and this impedes e-learning and e-teaching.

6.3 Conclusion

In conclusion, the study found out that the majority of students had positive perceptions and attitudes towards e-learning than their lecturers. It was established that students and lecturers interacted on the "Online Forum Learning Platform (OFLP) and that the lecturers used the platform to submit learning materials as well as assignments to students. The study acknowledged the fact that though, it was difficult sometimes for both students and lecturers to send and download information/files from the platform, yet, they still appreciated and recognised the platform as a self-learning medium. Finally, e-learning and teaching in an institution of higher learning should be embraced by all stakeholders, lecturers, students, and the entire university community.

6.4 Recommendations

The study found some factors which affected e-learning and e-teaching by distance education students and lecturers of Valley View University (VVU). Based on the findings, the researcher, therefore, made some recommendations to improve e-learning and e-teaching in the university.

6.4.1 Students' Perception Towards E-learning

It was revealed that some students found the use of Online Learning Forum Platform (OLFP) as difficult and frustrating, in view of these challenges, the university management should organise a periodic workshop, training, and seminars for both first-year students and continuous students in every semester to avoid difficulties and frustrations. Then again, the centre for adult education should carry out a research study to find out the challenges and frustrations that students go through when trying to access e-resources on the Online Learning Forum Platform (OLFP) and find a lasting solution. More so, the study established that internet connectivity was not steady on

campus. Based on this poor internet connectivity, the university management should make it necessary to increase the bandwidth in order to improve the internet speed for students to have a quick access to the internet facilities, at any location without necessarily coming to the university campus for internet access.

6.4.2 Lecturers' Perception Towards E-teaching

It was revealed that despite the initial training organised by the institution, some faculty members still have challenges on e-teaching as well as the use of the e-teaching devices. It is therefore recommended that the university management ought to re-organise training for all the faculty members on how to use e-teaching devices in their various lecture halls/rooms to avoid embarrassment. Although the findings reported that the majority of the students can interact with their lecturers, since not all the students can interact with their lecturers on the platform, it is recommended that the university management ought to rectify all the challenges that make constant interaction between students and their lecturers difficult on the Online Learning Forum Platform (OLFP).

The study established that the majority of the faculty members expressed that e-teaching tools do not consume time, however, some lecturers have challenges with the use of the e-teaching tools, therefore, management of the university should appoint a teaching assistant who has adequate knowledge in ICT to assist lecturers during online teaching. It is also recommended to the university administrators to provide lecturers with all the relevant e-teaching devices that will facilitate teaching; these devices should be user-friendly without consuming time.

6.4.3 Perceived Ease of use of E-learning

The study found out that a number of learners found it difficult to use Online Learning Forum Platform (OLFP). These challenges could be attributed to their lack of searching skills and low level of computing. Based on the findings, it is recommended that the university management should organise seminars and orientations for students as well. The management should also upgrade the Online Learning Forum Platform (OLFP) to allow easy searching for information both within and off-campus by distance learners. The study recommended that there should be an easy configuration of the wireless system so that students can use their personal computers/laptops to load and download information relating to their studies. There should be provision for easy access to e-learning resources; such as online journals, online books and online databases without limitations or restrictions to their usage.

6.4.4 Perceived Ease of use of E-teaching

The study found out that some lecturers found it difficult to search for online information on the e-platform. Based on the results, the distance education department should organise seminars for the lecturers on how to search for online information from the Online Learning Forum Platform (OLFP) without difficulty. It was established that lecturers found it difficult when trying to reach out to students; this difficulty can be ascribed to poor internet connectivity. It is therefore recommended that the university management should improve upon the Online Learning Forum Platform (OLFP) to address all the technical challenges that make it difficult for lecturers to get in touch with students. The management of the university should address the problems that faculty members faced when trying to upload and download information on the Online Learning Forum Platform (OLFP). It is also recommended to the university management that the lecturers

should be given a unique password that will enable them to log in to the platform without any difficulty.

6.4.5 Students' Attitude Towards E-learning

The study revealed that some students have a negative attitude towards e-learning.

This attitude may be attributed to their low level of knowledge in computing as well as how to log onto the Online Learning Forum Platform (OLFP) for information. It is therefore recommended that the university management should put their resources together to make e-learning attractive to all students studying through the distance education system. The university management and lecturers should encourage students to use the Online Learning Forum Platform (OLFP) regularly for academic information. Again, the centre for adult and distance education which is responsible for e-learning should provide adequate education to learners about the importance and benefit of e-learning. The centre for adult and distance education should organise periodic e-learning training for all distance learners regardless of their levels and knowledge in ICT devices or facilities. The distance education department ought to organise training on basic computer skills, the training should be made compulsory for all distance learners regardless of their levels.

6.4.6 Lecturers' Attitude Towards E-teaching

Majority of researchers including Sutherland (2004) indicated that the lack of skill with ICT equipment has on many occasions deterred lecturers from using available ICT facilities.

Based on the findings, it is recommended that the university management should provide all the useful and related e-teaching tools and makes them available in all the lecture halls to support e-

teaching and e-learning. There should be periodic workshops, seminars, and orientations for all the faculty members. The university should employ lecturers who have the right skills to teach online courses in the distance education mode. This will go a long way to produce skilled and knowledgeable graduates. It is also recommended that the university management should allow lecturers to attend international conferences and seminars on e-teaching and e-learning.

In order to eradicate the notion that traditional teachings are far better than the online methods, the university management should bring all lecturers to a level that will make them appreciate and support the use of e-teaching devices. The university should also provide lecturers with e-teaching devices that are not cumbersome and frustrating during their usage, in other words, they should be simple or user-friendly. There should be efficient training on e-teaching for all lecturers; this training will help them to improve their skills especially, those who are far behind their colleagues in computing.

6.4.7 Internal Factors Affecting E-learning

The study found out that some lecturers do not upload/send their courses and assignments on time to the distance learners, this attitude of some lecturers can affect students negatively.

It is recommended that lecturers should send online courses and assignments on time for students to study before the examination time; this will go a long way to improve their performance as well. Based on the findings, the university management should sanction any faculty member who refused to submit his /her courses as well as assignments on time to students. The findings indicated that an overwhelming number of students revealed that the internet services were below what one would have expected. In view of these challenges, the study recommended to the management of the university as a matter of urgency to purchase a bandwidth that has a higher

capacity to provide internet services for students and lectures as well as the entire university community. It was established that there were no technical support services for distance students, therefore, the study recommended that there should be a permanent information technology staff (ITS) to offer services to students at all times.

6.4.8 Internal Factors Affecting E-teaching

The study found out that there were no incentives for lecturers who teach distance learners.

It is, therefore, recommended that faculty members should be given incentives or any motivational packages that are attractive and commensurate with their services. These incentives could even be free laptops, pen drives, modems or any e-teaching device that can support e-teaching. Based on the findings, it is recommended that the university management should set up a technical support centre to assist lecturers in all their e-teaching activities. There should be a permanent IT staff responsible for installation/fixing of all ICT equipment, running of specialized software as well as ensuring the functionality of ICT equipment. It was found out that there is no co-ordination among the lecturers in terms of developing e-learning courses.

The study recommended to the university management to constitute a committee that will supervise the designing of all online courses. It is recommended that the committee should be responsible for checking the standard of courses, course content, language, and especially jargons/ technical terms that students may find it difficult to understand in their studies. In other words, the language should be simple and clear. As part of the recommendations, lecturers should be encouraged to involve themselves in any of the e-teaching training that will be organised by the university. This will enable them to acquire and develop their skills as well as

their competencies towards e-teaching. There should be continuous orientations, seminars, conferences, workshops and adequate literacy programmes for all the lecturers and students.

6.4.9 External Factors Affecting E-learning

The study revealed that the majority of the students found it difficult to access e- resources from the Online Learning Forum Platform (OLFP) when at home.

Based on the findings, it is recommended that the university should establish e-learning centres where their students dwelled, if possible in all the regions and provide them with the internet services to enable them to have access to e-resource from anywhere at any time of the day regardless of their geographical location/boundaries. This will improve and encourage the maximum use of e-resources by all distance education learners. The study established that the cost of internet fees/charges from private cafes' did not impede e-learning, however, some students agreed that the cost of internet fees/charges from private cafes' impede their studies.

The study, therefore, recommended that the university management should find a way of subsidizing the fees of distance learners; this will also attract others to apply for online studies since the online programme is good for workers who dwelled in different geographical locations.

The study also found out that access to the internet facilities when at home hinder e-learning.

It is recommended that the university management should provide all distance learners with Wi-Fi or free modems to enable them to have access to the internet services from their various locations. It is recommended that the university management should find a way to attend to all challenges confronting distance learners when they are at home, irrespective of time and place, in doing so will go a long way to encourage students to embrace the system.

6.4.10 External Factors Affecting E-teaching

The study found out that high cost of e-learning devices and data bundles impedes e-teaching. Based on the findings, it is recommended that the university administration should take a bold decision to provide lecturers with some allowances to enable them to buy e-teaching devices and credit for data bundles and use them at their homes. In doing so will empower lecturers to have constant interaction with their students through the online platform.

On the issue of telecommunication policies and regulations, it was found out that the majority of the lecturers indicated that policies and regulations hinder e-teaching. The study, therefore, recommended that the university management should negotiate with the telecommunication networks to allow lecturers to have access to certain information relating to education without limitations and restrictions. It is recommended again that as part of the negations, the telecommunication networks should allow lecturers to download some files, pictures, and videos that will be helpful to students' academic work. The researcher recommended that authors or originators of a particular work should be considerate enough and give an exclusive right to lecturers to use a large percentage of their work since the lecturers are going to use the information for the educational purpose, therefore, it should be used without any infringement.

6.5 Suggestions for Further Research

Although a rigorous research procedure was adopted in this study, there remain some potential limitations that could be identified and discussed in future research; therefore, it is recommended that future research could be carried out on the following;

i. It is suggested that since the present study is a case study approach, future studies could adopt a comparative study.

ii. The present study was carried out in a private university; future researchers should extend their studies to the public universities. This could go a long way to provide more revealing results.

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APPENDIX 1

QUESTIONNAIRE FOR STUDENTS

UNIVERSITY OF GHANA, LEGON

COLLEGE OF EDUCATION

SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

DEPARTMENT OF INFORMATION STUDIES

Dear Respondents,

I am an M.Phil. Student of Department of Information Studies University of Ghana researching on **Electronic-learning and teaching by Distance Education Students and Lecturers: A case study of Valley View University (VVU)**. I will entreat you to give me some few minutes of your time to complete the questionnaire for me. All your responses will be treated confidentially.

Thank you.

Samuel Ameyaw

Instructions: Answer the questions by ticking [√] or providing an appropriate answer.

Section A: Demographic Data

1. Gender: i. Male [ ] ii. Female [ ]

2. Age: i. 19 years & below [ ] ii. 21 - 30 years [ ] iii.31-40 years [ ] iv. 41 years & above [ ]

3. Level: i.100 [ ] ii 200 [ ] iii 300 [ ] iv 400 [ ]

4. Please, indicate the department/faculty you belong to……

Section B: Students' Perception Towards E-learning

To what extent do you agree or disagree with the following statements based on your perception of E-learning. Please, tick [√] one box for each question.

Statement	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree
E-learning allows better access to e-resources					
I can interact with my colleagues through the e-learning platform					
E-learning facilitates the presentation of course content					
E-learning is difficult and frustrating					
E-learning allows greater interaction with my lecturers					
The internet network connectivity my department is poor					

Section C: Perceived ease of use of e-learning by students

How easy or difficult do you find the use of e- teaching platform? Tick [√] one box for each question.

Statement	Very Difficult	Difficult	Neutral	Easy	Very easy
Learning to use the e-learning platform is					
Searching for information on the e-learning platform is					
Getting access to e-learning resources for my study is					
Navigating through the e-learning platform is					
The loading and downloading of materials is					
Logging into the e-learning platform is					

Section D: Students Attitude Towards E-learning

Please, indicate your views on the following statements. Tick [√] one box for each question.

Statement	Never	Rarely	Sometimes	Often	Always
E-Learning is a useful medium for self-learning					
E-Learning has developed my knowledge and skills in ICT					
I prefer to have some courses online, rather than face-to-face learning					
I need to be trained before they use e-learning platform					
Learning with a computer is very difficult					
E-learning devices I use for my program are user- friendly					

Section E: Internal Factors affecting E-learning

To what extent do you agree or disagree with the following statements on how the University supports your use of E-learning platforms? Please, (Tick [√] one box for each question.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The University has enough computers for the e-learning students					
I have not encountered problems when logging to the e-learning platform					
Lecturer's inability to send online courses on time affect my performance					
It is difficult to download courses due to poor internet connectivity					
There is technical support services for e-learning students					
There is adequate internet services for e-learning					
The university is supportive of e-learning					

Section F: External Factors Affecting E-learning

Please, indicate the extent to which you oppose or in favor of the following statements. Tick [√] one box for each question.

Statement	Strongly oppose	Somewhat oppose	Neutral	Somewhat favour	Strongly favour
It is difficult to communicate with their lectures when at home					
It is difficult to access e-resources from the e-platform when at home					
The cost of internet fees/charges from private cafe' impede e-learning					
Erratic power supply at home hinders my use of e-learning resources					
Lack of access to the internet facilities when at home discourages e-learning					
The cost of e-learning equipment inhibit learning					

THANK YOU FOR YOUR PARTICIPATION

APPENDIX 2

QUESTIONNAIRE FOR LECTURERS

UNIVERSITY OF GHANA, LEGON

COLLEGE OF EDUCATION

SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

DEPARTMENT OF INFORMATION STUDIES

Dear Respondents,

I am an M.Phil. Student of Department of Information Studies University of Ghana researching on **Electronic-learning and teaching by Distance Education Students and Lecturers: A case study of Valley View University (VVU**). I will entreat you to give me some few minutes of your time to complete the questionnaire for me. All your responses will be treated confidentially.

Thank you.

Samuel Ameyaw

Please, answer the questions by ticking [√] or providing an appropriate answer.

Section A: Demographic Data

1. Gender: i. Male [ ] ii. Female [ ]

2. Age: i. 30 years & below [ ] ii. 31- 40 years [ ] iii. 41-50 years [ ] iv.51 years & above [ ]

3. Please indicate the level(s) you teach. i. 100 [ ] ii. 200 [ ] iii. 300 [ ] iv. 400 [ ]

4. Please, write the department/faculty you belong to……

Section B: Lecturers' Perception Towards E-learning

To what extent do you agree or disagree with the following statements based on your perception of E-learning. Please, tick [√] one box for each question**.**

Statement	**Strongly Agree**	**Agree**	**Neutral**	**Strongly Disagree**	**Disagree**
E-teaching encourages learning and removes distance between a lecturer and students					
I am not comfortable with the use of e-learning devices in my teaching					
I can communicate effectively with students through e-learning platform					
The use of e-learning tools in teaching consume time					
The use of e-learning platform reduces personal contact between teachers and students					

Section C: Perceived ease of use of e-teaching by lecturers

Indicate how easy or difficult do you find the use of e- teaching platform? Tick [√] one box for each question.

Statement	Very Difficult	Difficult	Neutral	Easy	Very easy
Searching on the e-learning platform for information is					
Loading and downloading of e-learning resources					
Uploading/Sending online information to students is					
Logging into the e-learning platform is difficult					
My interaction with students on the e-learning platform is					
Reaching out to students and getting feedback from them on e-learning platform is					
Navigating through the e-learning platform is					

Section D: Lecturers' Attitude Towards E-teaching

Please, indicate your views on the following statements. Tick [√] one box for each question'

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Conventional teachings are far better than the online methods					
I have the right teaching skills to use e-teaching devices					
I am comfortable with the e-teaching					
Technology use makes e-teaching exciting					
The use of e-teaching devices is always cumbersome and frustrating for me					
I am always ready to change my courses to e-format					
I have received adequate training					

on e-teaching					

Section E: Internal Factors Affecting E-teaching

Please, indicate the extent to which you agree or disagree with the following statements. Tick [√] one box for each question.

Statement	Strongly Agree	Agree	Neutral	Strongly Disagree	Disagree
There are teaching incentives for lecturers					
There are no adequate facilities for e-teaching					
There is technical support for lecturers					
There is co-ordination among the lecturers to develop e-learning courses					
Most lecturers do not possess the ICT competencies required to use the e-teaching facilities					
Unstable power supply distracts e-teaching and learning					
Internet connectivity on campus supports e-learning and teaching					

Section F: External Factors Affecting E-teaching

Please, indicate how external factors affect e-teaching. Tick [√] one box for each question, where, **Strongly Disagree = SD; Disagree =D; Somewhat Disagree = SWD; Neither Agree nor disagree =N; Somewhat Agree =SWA; Agree =A and Strongly Agree = SA.**

Statement	SD	D	SD	SWD	SWA	A	S A
High cost of e-learning devices and data bundles impedes e-teaching							
The influence of digital divide affects e-learning and e-teaching							
Telecommunication policies and regulations hinder e-teaching							
Inability to get access to the internet from home impedes e-teaching							
Difficulty in sending courses online to students when at home inhibits e-teaching							
The issues of copyright hinders e-learning							

Source: Field data, 2018

G. Any other comments to improve e-teaching in the university campus? Kindly state them

……

Thank you for your participation.

APPENDIX 3

LETTER OF INTRODUCTION

UNIVERSITY OF GHANA
DEPARTMENT OF INFORMATION STUDIES
SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

Ref. No.:.....

March 12, 2018

The Director
Valley View University
Centre for Adult and Distance Education
Accra

Dear Sir/Madam,

LETTER OF INTRODUCTION

This is to introduce to you Mr. Samuel Ameyaw, an MPhil student of the Department of Information Studies. He is researching on the topic: **"Electronic Teaching and Learning by Distance Education Students and Lecturers: A Case Study of Valley View University (VVU)".** Samuel is expected to submit his Thesis as part of the requirement for the MPhil programme.

We would appreciate any support you can give him.

Yours faithfully,

DR. EMMANUEL ADJEI
(HEAD OF DEPARTMENT)

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