

**ADOPTION OF E-LEARNING IN SELECTED SCHOOLS OF LIBRARY AND INFORMATION
SCIENCE (LIS) IN UGANDA**

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DECLARATION

I, Wejuli Joseph, hereby declare that the work presented in this dissertation is my own. It has also not been plagiarized nor submitted for publication anywhere else.

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Signature:



Date:

29/04/2024

APPROVAL

I hereby confirm that this work has been prepared and presented under my supervision.

Mr. Ssekitto Francis

Signature:

A handwritten signature in black ink, appearing to be 'Ssekitto Francis', written over a light blue grid background.

Date: 29/04/2024

DEDICATION

This research is dedicated to my late father, Mr. Pantaleo Juma and my mother, Juma Jane Frances.

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LIST OF ACRONYMS

EASLIS: East African School of Library and Information Science (EASLIS)

E-learning: Electronic Learning

ICTs: Information and Communication Technologies

LIS: Library and Information Science

TAM: Technology Acceptance Model

UCU: Uganda Christian University

ABSTRACT

This research examined the adoption of e-learning in LIS education schools by comparing e-learning adoption at EASLIS and UCU to determine whether there were any significant differences and to propose strategies to improve their adoption rates of e-learning. The research's objectives were: i) to compare the e-learning initiatives at EASLIS and UCU; ii) to compare the degree of user-adoption of e-learning at EASLIS and UCU; iii) to examine the challenges affecting the adoption of e-learning at EASLIS and UCU; and iv) to propose strategies to increase the adoption of e-learning at EASLIS and UCU. The research design was a comparative case study with a mixed-methods research approach. The sample size consisted of 22 study participants who composed the entire target population. The data collection methods used were questionnaires and structured interviews. The research findings revealed that both LIS education schools had e-learning initiatives, however, UCU had less management support and did not have a governing committee to manage e-learning. It was further revealed that the degree of user-adoption of e-learning in both LIS education schools was high, however, there were limitations such as the need for staff to get their own Zoom licences at UCU and the low compliance levels among staff at EASLIS. It was also revealed that the LIS education schools suffered from limited funding, high connectivity costs and intellectual challenges, among others. UCU was also understaffed and staff at EASLIS showed low complacency levels and were overworked. The study concluded that there was a need for UCU to install an e-learning governing committee and to lobby for more management support. It was also concluded that both LIS education schools needed to train their staff in delivering engaging e-learning content. It was further concluded that both LIS education schools had to lobby for more financial support. Lastly, EASLIS had to improve staff compliance levels and UCU had to recruit more staff. For EASLIS, the study recommended increasing sensitisation levels to enhance staff compliance and scheduling content delivery as a strategy to reduce staff workloads. For UCU, the study recommended hiring more staff to fill the human resource gaps, purchasing Zoom licences for staff to limit them from using personal resources, lobbying for management support and installing an e-learning government committee. For both EASLIS and UCU, the study recommended lobbying for more funding and conducting staff training to improve their capacity to deliver engaging content.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter introduces the topic under study by providing the background, research problem, research aim, research objectives and research questions. It also provides insight into the significance of the study, scope of the study, conceptual framework and the definition of key operational terms.

1.2 Background to the study

Early forms of e-learning are traced to 1843 where Isaac Pitman invented shorthand, a form of early e-learning content delivery through self-paced learning materials (Qandil & Abdel-Halim, 2020; Coman et al., 2020). In the 1960s, the rise of mainframe computers facilitated the development of Computer-Aided Instruction (CAI) programs (Qandil & Abdel-Halim, 2020; Coman et al., 2020). In the 1980s, the Arabic term for e-learning, emerged as CD-ROMs and personal computers became more prevalent (Qandil & Abdel-Halim, 2020; Coman et al., 2020). In the 1990s, the internet revolutionized eLearning with the development of online learning platforms and asynchronous communication tools like email and discussion forums (Qandil & Abdel-Halim, 2020; Coman et al., 2020). In 2000s, the rise of Web 2.0 technologies like wikis, blogs, and social media introduced collaborative learning opportunities and user-generated content in e-learning (Qandil & Abdel-Halim, 2020; Coman et al., 2020). In 2010s and beyond, mobile learning exploded with the widespread adoption of smartphones and tablets, enabling anytime, anywhere access to e-learning content (Qandil & Abdel-Halim, 2020; Coman et al., 2020). Today, e-learning platforms embrace gamification, virtual reality (VR), and augmented reality (AR) to create more engaging and immersive learning experiences. In East Africa, early e-learning initiatives emerged in universities like Kenyatta University (Kenya) and Makerere University (Uganda) in 1960s, primarily utilizing computer-based training (CBT) (Kotoua et al., 2015; Makokha & Mutisya, 2016). The growing internet access and government support in 2000s in some countries like Rwanda led to increased adoption of e-learning (Kotoua et al., 2015). In 2010s, mobile learning gained traction with the rise of affordable smartphones. Blended learning models, combining online and face-to-face elements, became popular. Uganda's e-learning journey goes as far back as the 1960s (Juliana & John, 2005). In 2001, the

Uganda National Council for Higher Education (NCHE) established a policy framework for ICT in education, paving the way for e-learning adoption in universities (Baguma & Wolters, 2021). In 2003, Makerere University's Centre for Distance Education launched its online learning platform, offering flexible learning opportunities (Baguma & Wolters, 2021).

Today, Library and Information Science (LIS) schools are facing different challenges than their predecessors. This is because of the advancements in information and communication technologies (ICTs) which have revolutionised learning and changed pedagogy in LIS schools as we know it. According to Bada, Asianzu and Lugemwa (2020, p.1), "e-learning is the use of electronic technology to deliver, support and enhance teaching and learning". Given the changing career landscape, electronic learning (e-learning) initiatives have been introduced in LIS schools to meet the career changes and demands (Borgohain, Nath, & Devi, 2020). Bada et al. (2020, p.3) point out that "schools that do not incorporate the use of new technologies in classrooms cannot claim to prepare students for life in the twenty-first century". Apart from meeting the demands of the changing career landscape, LIS education schools have also adopted e-learning initiatives to improve the quality of learning and increase the scope of services offered (Bada et al., 2020; Borgohain et al., 2020). This change has been influenced by a number of factors such as demographics and technology, which have made the adoption of e-learning a necessity. From a global perspective, most LIS education schools in developed countries have turned to e-learning initiatives, with some courses offering purely online teaching, learning and support services. Most of these changes have been steered by the changes in information needs and information seeking patterns, as well as technological advancements which have pushed for curriculum changes and changes in teaching methods and delivery processes (Borgohain et al., 2020). Despite this progress, the story is different for most LIS education schools in low-income settings which lack the enabling environment for effective delivery and utilisation of e-learning services (Bada et al., 2020). However, a number of LIS education schools in developing countries like Uganda have adopted e-learning as part of their pedagogy. Given the significance of e-learning in pedagogy in today's modern world, it was found necessary to examine the adoption of e-learning in LIS education schools. This study sought to compare the adoption of e-learning at East African School of Library and Information Science (EASLIS) and Uganda Christian University (UCU).

1.2.1 Context of the study

1.2.1.1 Background to EASLIS

EASLIS is a regional training school for LIS in East Africa established in 1963 as an outcome of the agreement between the three East African States by then, i.e., Uganda, Kenya and Tanzania (EASLIS, 2022). As a fully-fledged institution equivalent to a Faculty of Makerere University, the school offers training programs from undergraduate to postgraduate courses. These programs fall under two departments: LIS and Records and Information Management (EASLIS, 2022). LIS is considered a service-oriented program requiring practical skills, and thus, EASLIS has a computer laboratory, audio-visual laboratory, book processing unit and desktop publishing unit to meet the pedagogy demands (EASLIS, 2022). For EASLIS to achieve its mission of producing high quality information professionals with the ability to respond to present and future needs, it cannot do away without adopting e-learning in LIS education. The researcher used EASLIS to represent public universities offering LIS education in Uganda.

1.2.1.2 Background to UCU

UCU is a private university founded in 1997 by the Church of Uganda (UCU, 2022). The university offers its programs through different faculties and it is considered one of the leading teaching and research tertiary institutions in Uganda (UCU, 2022). LIS programmes are offered through the School of Education. Presently, these programmes range from records management to library and information science at undergraduate and postgraduate levels (UCU, 2022). The researcher used UCU to represent private universities offering LIS education in Uganda.

1.3 Research problem

LIS education schools today are facing different challenges compared to their predecessors in the pre-internet era (Borgohain et al., 2020). The change in information needs and seeking behaviours coupled with technological advancement have made the adoption of e-learning initiatives in institutions, such as LIS schools indispensable. Similarly, changes in demographics such as the rise of millennials who are tech savvy have increased demand on changing the teaching and learning methods to cope with the trends. EASLIS and UCU are among the LIS education schools in Uganda which have adopted e-learning as part of their pedagogy. However,

existing research shows that generally, there is generally low adoption of e-learning initiatives in Uganda due to a number of challenges such as limited experience in e-learning pedagogy, preference of face-to-face learning than e-learning and competence in teacher-centred model of learning than student-centred, which is predominant with e-learning (Bada et al., 2020; Nyemike et al., 2022; Twinamasiko *et al.*, 2021; Okello-Obura & Kigongo-Bukenya, 2011). The researcher used this study to compare the degree of e-learning adoption between EASLIS and UCU.

1.4 Aim of the study

The aim of this study was to examine the adoption of e-learning in LIS education schools by comparing e-learning adoption at EASLIS and UCU to determine whether there are significant differences between the two institutions and to propose strategies to improve their adoption rates of e-learning.

1.5 Research objectives

The research objectives of the study were:

- i. To compare the e-learning initiatives at EASLIS and UCU.
- ii. To compare the degree of user-adoption of e-learning at EASLIS and UCU.
- iii. To examine the challenges affecting the adoption of e-learning at EASLIS and UCU.
- iv. To propose strategies to increase the adoption of e-learning at EASLIS and UCU.

1.6 Research questions

Based on the research objectives above, this study sought to answer the following research questions:

- i. What are the e-learning initiatives at EASLIS and UCU?
- ii. What is the degree of user-adoption of e-learning at EASLIS and UCU?
- iii. What are the challenges affecting the adoption of e-learning at EASLIS and UCU?
- iv. Which strategies can be adopted to increase the adoption of e-learning at EASLIS and UCU?

1.7 Scope of the study

1.7.1 Content scope

This study's content was limited to the objectives of the research. The study focused on the e-learning initiatives at EASLIS and UCU; the degree of user-adoption of e-learning at EASLIS and UCU; the challenges affecting the adoption of e-learning at EASLIS and UCU; and the strategies which can be adopted to increase the adoption of e-learning at EASLIS and UCU.

1.7.2 Geographical scope

The study's geographical scope was limited to EASLIS and the Faculty of Education at UCU, Mukono, both which serve as the LIS education schools at Makerere University and UCU respectively.

1.7.3 Time scope

The research was conducted between July 2022 and January 2023. Within this time, the researcher prepared a concept note, a research proposal, collected field research and prepared this report.

1.8 Significance of the study

The study findings are expected to provide insight to policymakers in Uganda on the state of e-learning at EASLIS and UCU, which they can use as a benchmark study for decision-making on measures to increase the adoption and uptake of e-learning in tertiary education institutions in Uganda.

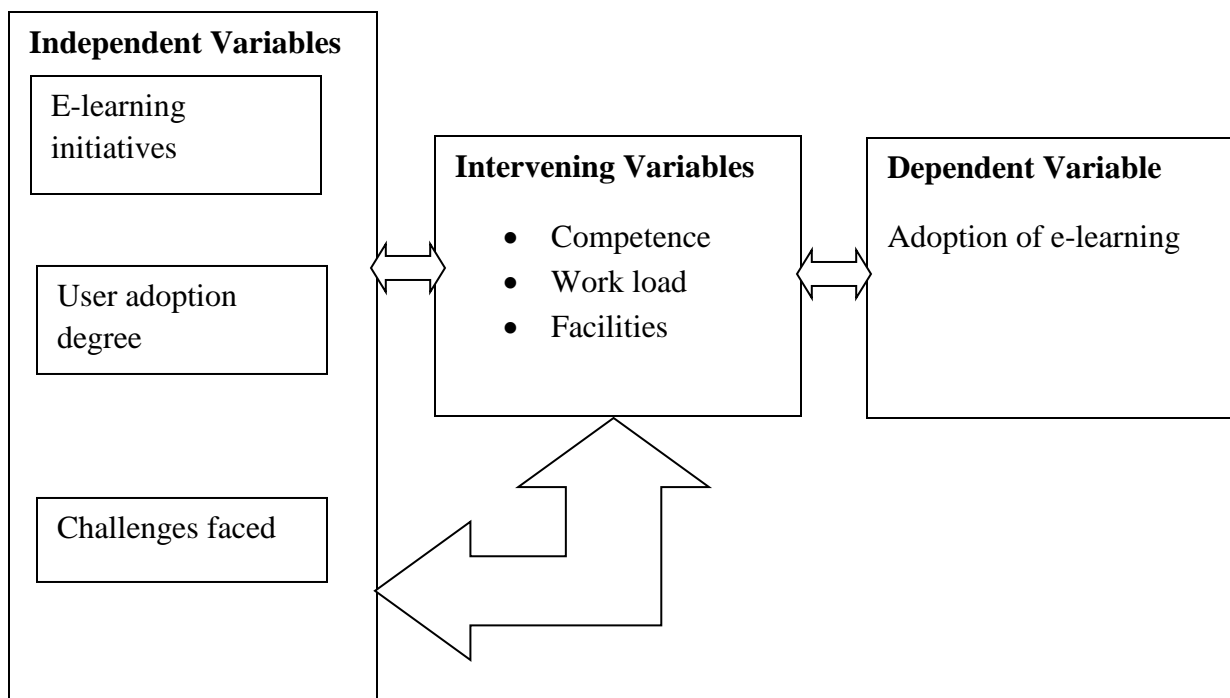
The study findings are also expected to inform the management of Makerere University and UCU about the degree of user-adoption of e-learning at EASLIS and UCU, and the challenges being faced, which may influence them to strengthen e-learning initiatives within EASLIS and UCU and other colleges.

Lastly, the study is expected to contribute to existing research on e-learning from a pedagogy point of view, which could be beneficial to other researchers and also prompt the need to conduct similar research in different settings.

1.9 Conceptual framework

The figure below illustrates the conceptual framework for the study. In the conceptual framework, the Independent Variables were the e-learning initiatives, degree of user-adoption and the challenges faced; the Intervening Variables were the strategies implemented to enhance the adoption of e-learning, while the Dependent Variable is the adoption of e-learning. This study assumed that the existing e-learning initiatives, degree of user-adoption and challenges faced affect the adoption of e-learning. However, e-learning could be improved by employing strategies to improve the existing e-learning initiatives, degree of user-adoption and mitigate the challenges faced.

Figure 1. 1: Conceptual framework



Source: Researcher (2022)

1.10 Definition of key operational terms

E-learning: Borgohain et al. (2020, p.3) define e-learning as "a concept derived from the use of Information and Communication Technologies (ICT) to revise and transform traditional teaching

and learning models". The researcher borrowed this concept and employed it to mean the integration of digital technologies with teaching and learning at EASLIS and UCU.

Adoption: This is "the action or fact of choosing to take up, follow through, or use something" (Oxford English Dictionary). Adoption was used in this study to mean the magnitude at which users/LIS education schools had taken up e-learning, with a special focus on EASLIS and UCU.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

A literature review is defined as: "a systematic way of collecting and synthesising previous research" (Snyder, 2019, p.1). By reviewing previous research on a similar topic, a researcher is able to advance their knowledge in the given topic and thus comprehensively address the research questions (Snyder, 2019). This study reviewed existing literature concerning the area under study based on the research objectives.

2.2 Theory that guided the study

The theoretical framework for this study was based on the Technology Acceptance Model (TAM). According to Amadu et al. (2018), this model emanated from the theory of reasoned action (TRA). The model was designed to describe the IT acceptance behaviours of individuals. Currently, TAM is popularly used to predict or measure the rate of user acceptance or adoption of ICTs (Amadu et al., 2018; Kimwise, 2017). The model examines the influence of users' beliefs and attitudes towards their acceptance or rejection of ICTs. Amadu et al. (2018) notes that TAM explains the factors which influence the adoption and use of ICTs among users. Given that this study aimed at examining the adoption of e-learning among LIS education schools, TAM was found to be suitable as it would provide a framework for which the study would be guided by. The determinants for user adoption as provided by the TAM model are perceived usefulness and perceived ease of use. It is said that these variables affect the intention of a user in using a particular ICT. The extended TAM model known as TAM2 includes social influence and cognitive instrumental processes as other determinants for the adoption and usage of ICTs (Amadu et al., 2018). This model guided the researcher in understanding different components of the adoption of e-learning initiatives in LIS education schools based on their perceived usefulness, ease of use and the intention to adopt the e-learning initiatives. The theory provided a pathway which the researcher followed in addressing the research objectives.

2.3 E-learning initiatives in LIS education schools

E-learning has greatly transformed the process of teaching and learning in LIS education schools (Abdallah, 2018). The integration of technology in learning has become an indispensable

element in LIS education schools due to the changing needs and demands that technological advancements have caused globally. These have created shifts in careers and professions calling for changes in the way educational content is delivered. Technology has also disrupted the information landscape which has transformed library and information science professions (Elangovan & Radhakrishnan, 2020; Matusiak, Stansbury, & Barczyk, 2014). This has resulted in the need for new competencies and skills thus necessitating the need for LIS education schools to adopt new ways of teaching. E-learning is one of the initiatives that LIS education schools today are implementing (Rafique et al., 2021). Through e-learning, LIS students are exposed to either blended or purely distance learning. E-learning can be provided through synchronous learning or asynchronous learning (Topping et al., 2022; Borgohain et al., 2020). Through synchronous e-learning, education content is delivered in real-time through avenues such as web conferencing (Borgohain et al., 2020). Topping et al. (2022) says that this mode of learning keeps the engagement levels among students high and encourages social interactions thus promoting learning. Asynchronous e-learning on the other hand is not delivered in real-time. Classes or educational content is recorded or delivered through emails, among other methods, which provide learners with access to learning material at any time (Borgohain et al., 2020). With this method, learning can occur at any time, however, there is limited or no social interaction which can affect learning outcomes. LIS education schools have the opportunity to offer e-learning initiatives through one mode or both models as part of their pedagogy (Bankole, 2022; Borgohain et al., 2020). Rafique et al. (2021) notes that e-learning initiatives are being provided through online learning management systems and virtual classes. These are organised with support from videoconferencing applications and other online-based programs. The study of Velmurugan (2012) notes that e-learning is also being utilised during workshops, assessments, simulations and training. Kumbhar (2009) lists a number of e-learning initiatives adopted by LIS education schools. These include: three weeks e-learning courses offered by the Association of College and Research Libraries; fifteen days e-learning courses offered by the Special Libraries Association through Click University; and online continuing education programmes offered by Young Adult Library Services Association, among others (Kumbhar, 2009). These constitute some of the e-learning initiatives offered. Given that different LIS education schools have different capacities, the e-learning initiatives offered differ based on the LIS education school.

2.4 The degree of user-adoption of e-learning in LIS education schools

Existing research has shown how many LIS education schools around the globe have adopted e-learning as part of their teaching and learning pedagogy (Bankole, 2022; Nyemike et al., 2022). Even in low-income countries where e-learning was barely offered in LIS education schools, global events such as the COVID-19 pandemic have exacerbated the rate at which e-learning is being implemented. Bankole (2022) points out that the degree of user-adoption of e-learning can be witnessed by the widespread adoption of distance-learning in LIS education schools. Despite the mass adoption of e-learning among LIS education schools, the degree of user-adoption of e-learning differs. According to Nyemike et al. (2022), the degree of user-adoption of e-learning in LIS education schools in developing countries such as those in sub-Saharan Africa is still low despite the general worldwide growth trend in the number of students enrolled in e-learning courses. The same study points out that most LIS educators in sub-Saharan Africa prioritise face-to-face teaching and learning rather than e-learning. This is attributed to their familiarity to a teacher-centred model than a learner-centred model, which is a trait of e-learning initiatives (Nyemike et al., 2022; Bada et al., 2020; Okello-Obura & Kigongo-Bukenya, 2011). This shows that the factors affecting the degree of user-adoption of e-learning among LIS education schools are both personal and institutional.

2.5 The challenges affecting the adoption of e-learning in LIS education schools

While the adoption of e-learning in LIS education schools has been widely lauded and recommended due to the perceived benefits, several studies have reported that there are a number of challenges affecting e-learning adoption in LIS education schools. Most of these challenges are institutional and personal. These challenges are presented below:

2.5.1 Poor internet access

E-learning requires good internet access which is a challenge for most LIS education schools in low-income countries (Topping et al., 2022). There are high internet costs and a low bandwidth which presents connectivity issues and thus affect internet access.

2.5.2 Poor infrastructure

To implement and access e-learning, supporting infrastructure such as computers, laptops and mobile devices are needed (Topping et al., 2022; Rafique et al., 2021; Borgohain et al., 2020).

However, the infrastructure in most LIS education schools is inadequate to meet all student needs. Even those possessed by students such as mobile devices may not be ideal for accessing e-learning initiatives. This affects the adoption of e-learning in LIS education schools.

2.5.3 Incompetence among teachers

Most teachers in LIS education schools are ignorant about e-learning due to the absence of professional development training activities. This makes them unprepared and hesitant to implement e-learning initiatives which affects the adoption of e-learning in LIS education schools (Topping et al., 2022).

2.5.4 Decreased learner engagement

E-learning does not replicate direct human contact nor provide the level of social engagement experienced by learners in a classroom (Rafique et al., 2021; Sharma, 2018). This decreases the level of engagement among learners which affects the adoption of e-learning in LIS education schools.

2.5.5 Limited digital literacy competencies among users

For users to be able to adopt e-learning, they require a certain degree of digital literacy competencies (Rafique et al., 2021). However, most users are unprepared and have limited skills in digital competencies which affects their ability to use e-learning initiatives. This limits the adoption of e-learning in LIS education schools.

2.5.6 Cyber bullying and compromised online security

Cyber bullying and compromised online security raises privacy and safety concerns which discourages users from adopting e-learning (Sharma, 2018). This affects the adoption of e-learning in LIS education schools.

2.5.7 Poor curriculum design

E-learning depends on the existing curriculum design (Borgohain et al., 2020). Therefore, if the existing curriculum design does not favour e-learning, this limits its adoption in LIS education schools.

2.5.8 Lack of managerial and financial support

Another hindrance to e-learning adoption in LIS education schools is the lack of managerial and financial support which limits any significant developments to be made in e-learning (Borgohain et al., 2020).

2.6 Strategies to increase the adoption of e-learning in LIS education schools

Different strategies have been proposed in existing research for increasing the adoption of e-learning in LIS education schools. These are provided below.

2.6.1 Design of appropriate e-learning curricula

Borgohain et al. (2020) recommends the development and design of appropriate e-learning curricula as a way of increasing the adoption of e-learning. Among the key elements the curricula should cover is the integration of feedback and social interaction among learners. Topping et al. (2022) urges for designing e-learning initiatives which encourage collaboration, interaction and engagement.

2.6.2 Increased sensitization

The study of Kisanga and Ireson (2016) stresses the need to sensitise LIS educators on e-learning. This could be done by conducting in-house e-learning implementation training programs to boost the competence of LIS educators in e-learning delivery. LIS learners should also be sensitised to encourage their uptake of e-learning initiatives.

2.6.3 Conducting situational analyses

There is also a need to conduct situational analyses that examine the interface of ICT infrastructure and required ICT skills before rolling out e-learning in LIS education schools (Kisanga & Ireson, 2016). This is because some e-learning initiatives are very costly and thus call for a need to evaluate the capacity of LIS education schools in adopting them.

2.6.4 Adopting user-friendly software

E-learning initiatives are designed and delivered with the support of software. User-friendly software or that which is easy to use encourages the adoption of e-learning unlike that which is complicated or too complex to manoeuvre (Nyemike et al., 2022; Bankole et al., 2022).

2.6.5 Conducting digital literacy pieces of training

Staff and users should be trained in digital literacy to enhance their digital literacy skills (Rafique et al., 2021). This will encourage them to embrace the existing and new e-learning initiatives.

2.6.7 Strengthening security

Users should be protected by installing firewalls at proxy servers. This will protect users from cybercrimes which will enhance their confidence in utilising e-learning platforms (Sharma, 2018).

2.7 Research gap

The reviewed literature provided insight into key themes of e-learning adoption in LIS education schools. These included the e-learning initiatives in LIS education schools, the degree of user adoption of e-learning in LIS education schools, the challenges affecting the adoption of e-learning in LIS education schools and the strategies to improve e-learning in LIS education schools. This literature advanced the researcher's knowledge on e-learning in LIS education schools however, it did not address the aim of this research which was to examine the adoption of e-learning in LIS education schools by comparing e-learning adoption at EASLIS and UCU to determine whether there are significant differences between the two institutions and to propose strategies to improve their adoption rates of e-learning. This presented a knowledge gap which the researcher sought to fill by conducting this study.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

The methodology provides the steps followed when conducting a given study (Asenahabi, 2019). This section includes the research design, research approach, area of the study, population of the study, sampling strategies and procedures, data collection methods, data quality control, ethical considerations, and limitations to the study

3.2 Research design

Asenahabi (2019, p.2) defines a research design as "the overall plan for connecting the conceptual research problems to the pertinent and achievable empirical research". A research design facilitates the researcher in addressing the most important inquiries for a research study (Mukherjee, 2017). It is a prerequisite for successful research and it is prepared before collecting data to approach the research systematically. According to Asenahabi (2019), it is by developing a research design that a researcher translates their research problem into a doable study which can generate relevant answers for every research question. This study used a causal-comparative case study research design where the adoption of e-learning at EASLIS was compared with that of UCU. Asenahabi (2019, p.5) notes that this comparison is "performed with respect to a cause which has already occurred". By comparing two LIS education schools, the researcher sought to investigate e-learning adoption in both schools. This was the basis on which the research was built.

3.3 Research approach

Kankam (2019) notes that a research approach is a general technique followed by a researcher when conducting a given study. The research approach provides a basis on how the research will be addressed. For example, what data will be required. This study was based on a mixed-methods research approach. This involved the integration of elements from both qualitative and quantitative research approaches. It is said that a mixed-methods approach enhances the breadth and depth of knowledge attained which informs a study in more powerful ways than how a single approach to a specific study can (Asenahabi, 2019). Asenahabi (2019) also observes that by using a mixed-methods research approach, the researcher neutralises the weaknesses of each

approach. With the mixed-methods approach, both qualitative and quantitative data were collected.

3.4 Area of the study

Geographically, the areas for this study were EASLIS and UCU. Both LIS education schools have contributed greatly to training and honing the skills of LIS professionals in Uganda due to their long existence, and have high enrolment rates (EASLIS, 2022; UCU, 2022). The researcher chose these two LIS education schools given that one is public while one is private, and could thus provide a good basis for conducting comparative research of the degree of adoption of e-learning in LIS education schools in Uganda. EASLIS is located at Makerere University, Wandegaya, Kampala, while UCU is located in Mukono district. Conceptually, the study focused on the e-learning initiatives at EASLIS and UCU, the degree of user-adoption of e-learning at EASLIS and UCU, the challenges affecting the adoption of e-learning at EASLIS and UCU, and the strategies which can be adopted to increase the adoption of e-learning at EASLIS and UCU.

3.5 Population of the study

A study population is defined as "a complete set of people with specified characteristics" (Thacker, 2019, p.11). The study's population was composed of LIS educators from EASLIS and UCU. The researcher believed that LIS educators were knowledgeable about the adoption of e-learning in their specific institutions and could thus provide an informed point of view from the educator-based perspective. In total, there were 22 staff (EASLIS, 2022; UCU, 2022). Thacker (2019) recommends adequately describing the target population to foster the generalisation of the research. The breakdown of the study's population is shown below:

Table 3. 1: Breakdown of the study population

Institute	Staff designation	Total
EASLIS	Dean EASLIS	1
	Head of Department	1
	LIS staff	15
UCU	Dean of School of Education	1
	LIS staff	4

Total	22
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Source: EASLIS (2022); UCU (2022)

3.6 Sample size

A sample is "a subset of the study population" (Thacker, 2019:1). According to Gumpili and Das (2022), researchers are expected to have sample sizes which provide a true representation of the study population. A small sample size may not provide a true representation of the study population while a large sample size may be very expensive to have. Therefore, having the right sample size is of essence (Adhikari, 2021). For this study, all the study participants were purposively selected to participate in the study. This was to ensure that an adequate and representative sample size is used to decrease the risks of having errors and bias (Thacker, 2019). Therefore, all the 22 identified LIS educators were adopted as the sample size.

3.7 Data collection methods

Data collection methods refer to ways in which information is collected and used (Paradis *et al.*, 2016). Collecting data for research is important as it is a way of addressing the research questions. Sadan (2017) acknowledges that collecting quality data improves the accuracy and validity of the research findings. The research data for this study was collected from primary sources. Since it was a mixed-methods study, both qualitative and quantitative data collection methods were used. These are elaborated below.

3.7.1 Questionnaires

Sadan (2017) notes that it is the most common data collection method used by researchers because it accommodates obtaining information from large sample sizes within a short time frame. The researcher designed a structured questionnaire with responses provided to each question. The participants were expected to tick what was most applicable in their setting based on a 5-Lickert scale of "strongly agree, agree, not sure, disagree and strongly disagree". It is said that this measurement scale allows study participants to express the degree to which they agree or disagree with the researcher's viewpoint (Sadan, 2017). Most of the questions were closed-ended although in some instances, the study participants were asked to provide more information where it was deemed necessary. The questionnaires were issued to 11 study participants at

EASLIS and 3 study participants at UCU. 8 questionnaires were returned from EASLIS while 2 questionnaires were returned from UCU.

3.7.2 Interviews

Interviews are primary data collection methods where data is collected from individuals on a one-on-one basis with the aid of predetermined questions or a motive (Paradis *et al.*, 2016). According to Sadan (2017), interview questions need to be prepared before collecting data and they should be logical from broad to specific. This study used structured interviews which were pre-designed before conducting the actual interviews. The interview guide (refer to appendix 1) which was prepared was validated by the research supervisor before using it as a guide for the actual interviews. The interviews were held with 4 study participants, that is, 3 from EASLIS and 1 from UCU. Prior appointments were set and the researcher conducted the interviews on the day that was allocated (20 December 2022). The interviews were recorded and later transcribed and analysed by the researcher.

3.8 Data collection instruments

3.8.1 Questionnaire guide

A questionnaire guide was used to guide the process of collecting quantitative data from the questionnaires. The questionnaire guide used is attached in the appendix section (refer to appendix 2). The questionnaire guide was pre-prepared and structured in three parts. The first part included the introduction which the researcher used to introduce the purpose of the study and the questionnaire. The second part included the demographic information that the study participants had to share while the third part included the questions that the study participants were expected to answer based on the research objectives.

3.8.2 Interview guide

The interview guide was used to guide the process of collecting qualitative data from the interviews. The interview guide used is attached in the appendix section (refer to appendix 1). The interview guide was pre-prepared and structured in three parts just like the questionnaire guide. The first part contained the introduction section which was used to introduce the research and request the study participants to participate in the interviews. The second part contained the

demographic information that the study participants were expected to share while the third part contained the interview questions based on the research objectives.

3.9 Research procedure

The researcher first prepared a concept note and subsequently a research proposal which was approved by the Faculty of Education at Uganda Christian University. Following the research proposal approval, authorisation was received from the Directorate of Research and Graduate Training at Uganda Christian University to conduct the study. The researcher also received approval from EASLIS and UCU, Faculty of Education to conduct the study within their vicinity as the areas of study. Furthermore, the prospective study participants received a written information sheet introducing the research topic and purpose and requesting for their consent to participate in the study. The researcher set appointments with the study participants who were interviewed and issued the questionnaires to others. After collecting the data, the data was analysed and presented in the results section.

3.10 Data quality control

Data quality control is a process followed to enhance the quality of collected data (Sadan, 2017). The data quality control process of this study revolved around the validity and reliability of the collected data. To enhance the validity of the data, the researcher shared the data collection instruments with the research supervisor to review them and confirm their suitability in collecting the required data for the research. With the researcher supervisor's approval, the researcher was able to use the data collection instruments to collect data for the study. On the other hand, to enhance the reliability of the data, the researcher used the same questions for all the respondents and interviewees. This enabled the researcher to make comparisons and confirm the findings based on multiple responses. The researcher also attached the data collection instruments and provided the steps that were taken to conduct this study. Lastly, triangulation was used by combining two data sets.

3.11 Data analysis

The researcher analysed the quantitative data using Microsoft Excel. The researcher was able to measure the frequency and rates of the responses which were illustrated using figures, tables and

graphical representation. For the qualitative data, the researcher transcribed the interviews in Microsoft Word, where they were organised, edited and arranged based on the themes derived from the research objectives. The findings were used to complement the quantitative findings through verbatim and words. This is supported by Asenahabi (2019), who notes that one of the ways of analysing data in a mixed-methods study is by using the findings from both data sets to complement each other and confirm the obtained facts or expand the breadth of the study. The data was presented using words, figures, tables, percentages and verbatim.

3.12 Ethical considerations

Bhandari (2021) stresses the need for researchers to adhere to set ethical procedures. The researcher conducted the research only after receiving permission from Uganda Christian University to conduct the study. The researcher also requested EASLIS and UCU to offer their permission to conduct the study within their premises before going out in the field. The researcher further obtained informed consent from the study participants and ensured that their identities are concealed, and that no harm came to them due to their participation in this study. Lastly, academic integrity was respected by acknowledging all other sources used through following the recommended citation and referencing style.

3.13 Limitations of the study

The main limitation that was not accounted for while preparing for this research was the low number of LIS educators at UCU compared to EASLIS. The low number affected the response rate and the ability of the researcher to compare the research findings between the two LIS education schools. For example, while 8 study participants answered the questionnaires from EASLIS, only 2 answered the questionnaires from UCU. Similarly, while 3 study participants participated in the interviews at EASLIS, only 1 participated in the interviews from UCU. Therefore, generalising the findings from UCU was quite hard. However, the researcher ensured that all the responses were of quality and refrained from generalising the findings but reporting them as they were provided.

3.12 Delimitation of the study

The delimitation was the time at which the field research was conducted. This coincided with the festive holidays, and therefore, the researcher failed to access some of the study participants as they were on leave. However, all the study participants who participated were knowledgeable about the topic and greatly informed the study.

CHAPTER FOUR: PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents, analyses and discusses the research findings. In this chapter, the field findings are presented and discussed in two parts. The first part contains the response rate and biographic information of the study participants while the second part presents and discusses the field findings as per the research objectives.

Part one: Response rate and biographic information of the study participants

4.2 Response rate

The findings below provide information about the response rate at EASLIS and UCU. The first part provides the response rate at EASLIS, the second part provides the response rate at UCU and the last part provides the combined response rate from both EASLIS and UCU.

4.2.1 Response rate at EASLIS

The researcher issued out 11 questionnaires and expected to conduct 6 interviews. However, only 8 questionnaires were returned among the 11 issued out, and only 3 interviews were held among the 6 expected. This is presented in table 4.1 below.

Table 4. 1: Response rate at EASLIS

Data collection method	Issued/Expected	Returned/Held	Percentage
Questionnaires	11	8	72.3%
Interviews	6	3	50%
Total	17	11	65%

Source: Primary data (2023)

From the findings above, it can be seen that the response rate obtained from EASLIS was average at 65%. This was attributed to the timing of data collection as it aligned with the festive period. However, those who participated provided rich and enough information which ably informed the study.

4.2.2 Response rate at UCU

The researcher issued out 3 questionnaires and expected to conduct 2 interviews. Out of these, only 2 questionnaires were returned and 1 interview was held. The information is presented in table 4.2 below.

Table 4. 2: Response rate at UCU

Data collection method	Issued/Expected	Returned/Held	Percentage
Questionnaires	3	2	67%
Interviews	2	1	50%
Total	5	3	60%

Source: Primary data (2023)

The above findings in table 4.3 above show that the response rate at UCU was also average at 60%. Similarly, this was attributed to the timing of when the data was collected which coincided with the festive season and thus prevented the researcher from accessing some study participants. Despite this, sufficient information was obtained from the study participants who participated which was used to inform the study.

4.2.3 Combined response rate

In total, the researcher issued out 14 questionnaires and expected to hold 8 interviews. However, only 10 questionnaires were returned and 4 interviews were held as illustrated in table 4.3 below.

Table 4. 3: Combined response rate

Data collection method	Issued/Expected	Returned/Held	Percentage
Questionnaires	14	10	71.4%
Interviews	8	4	50%
Total	22	14	64%

Source: Primary data (2023)

The above findings show that the total response rate from the questionnaires was 71.4% while that from the interviews was 50%. The combined response rate was 64%. This was a fairly

average response rate that did not affect the findings in any way due to the quality of the responses received from those who participated.

4.3 Biographic information of the study participants

To get insight into who the study participants were, the researcher found out specific biographic information about them. These constituted their gender, age groups, highest education level, LIS education school affiliated to and how much experience they had in e-learning at their specific LIS education schools. The findings of those who answered the questionnaires are presented below in three parts. The first part covers the biographic information of the study participants affiliated to EASLIS, the second part covers the biographic information of study participants affiliated to UCU and the last part provides an overview of the biographic information of all the study participants combined.

4.3.1 Biographic information of the study participants from EASLIS

4.3.1.1 Gender composition of those who answered the questionnaires

The findings of the gender composition of the study participants from EASLIS who answered the questionnaires showed that there was an equal representation of males and females as indicated in table 4.4 below.

Table 4. 4: Gender composition of the study participants from EASLIS who answered the questionnaires

Category	Number	Percentage
Male	4	50%
Female	4	50%
Total	8	100%

Source: Primary data (2023)

From the findings above, it can be seen that those from EASLIS who answered the questionnaires were four males and four females indicating an equal representation of males and females.

4.3.1.2 Age group of those who answered the questionnaires

The results of the age group of those from EASLIS who answered the questionnaires indicated that most of the study participants were aged between 30-39 years and 40-49 years, followed by those aged 50 and above years. None was below the age of 30. This is represented in table 4.5 below.

Table 4. 5: Age group of the study participants from EASLIS who answered the questionnaires

Age group	Number	Percentage
20-29	0	0%
30-39	3	37.5%
40-49	3	37.5%
50 and above	2	25%
Total	8	100%

Source: Primary data (2023)

The above findings indicate that most of the study participants were middle-aged adults lying in the age groups of between 40 and 49 years and 50 and above years. This implied that they had considerable years of work experience in teaching and learning and could thus provide insights into e-learning which has recently gained a lot of attention.

4.3.1.3 Highest education level of those who answered the questionnaires

When it came to the highest education level of the study participants from EASLIS who answered the questionnaires, it was discovered that they were all postgraduates. Six had Master's degrees with one of the six pursuing a PhD while two had PhDs. The findings are presented in table 4.6 below.

Table 4. 6: Highest education level of the study participants from EASLIS who answered the questionnaires

Highest education level	Number	Percentage
Master's degree	6	75%

PhD	2	25%
Total	8	100%

Source: Primary data (2023)

The above findings revealed that the study participants from EASLIS who answered the questionnaires had high levels of education and could provide rich insights about e-learning in their LIS education school.

4.3.1.4 Level of experience in e-learning at EASLIS for those who answered the questionnaires

The study findings revealed that most of the study participants (50%) from EASLIS who answered the questions had a level of experience in e-learning at EASLIS of 1-5 years, followed by those (37.5%) whose level of experience in e-learning at EASLIS was 6-10 years and lastly, those (12.5%) whose level of experience in e-learning at EASLIS was 11 years and above. This is represented in table 4.7 below.

Table 4. 7: Level of experience in e-learning for the study participants from EASLIS who answered the questionnaires

Level of experience	Number	Percentage
1-5 years	4	50%
6-10 years	3	37.5%
11 years and above	1	12.5%
Total	8	100%

Source: Primary data (2023)

The above findings show that all the study participants had reasonable experience in e-learning at EASLIS with four study participants having a level of experience in e-learning at EASLIS of six years and above. Therefore, all the study participants were knowledgeable about e-learning and could ably inform the study.

4.3.1.5 Biographic information of the study participants from EASLIS who answered the interviews

Three interviews were conducted at EASLIS with two females and one male under the age group of 30-39 years. Two of these study participants had Master's degrees and one had a PHD. All the study participants had a level of experience in e-learning at EASLIS of 6-10 years. Like with the questionnaires, based on the level of education and experience in e-learning, it was deduced that they were highly knowledgeable about e-learning at EASLIS and would thus provide informative information to inform the study.

4.3.2 Biographic information of the study participants from UCU

4.3.2.1 Gender composition of those who answered the questionnaires

The findings of the gender composition of the study participants from UCU who answered the questionnaires showed that there was an equal representation of males and females as indicated in table 4.8 below.

Table 4. 8: Gender composition of the study participants from UCU who answered the questionnaires

Category	Number	Percentage
Male	1	50%
Female	1	50%
Total	2	100%

Source: Primary data (2023)

From the findings above, it can be seen that that those from UCU who answered the questionnaires were four males and four females indicating an equal representation of males and females.

4.3.2.2 Age group of those who answered the questionnaires

The results of the age group of those from UCU who answered the questionnaires indicated that one study participant was aged between 30-39 years and another 50 years and above. This is represented in table 4.9 below.

Table 4. 9: Age group of the study participants from UCU who answered the questionnaires

Age group	Number	Percentage
20-29	0	0%
30-39	1	50%
40-49	0	0%
50 and above	1	50%
Total	2	100%

Source: Primary data (2023)

The above findings indicate that all the study participants were adults. This implied that they had considerable years of work experience in teaching and learning and could thus provide insights into e-learning which has recently gained a lot of attention.

4.3.2.3 Highest education level of those who answered the questionnaires

When it came to the highest education level of the study participants from UCU who answered the questionnaires, it was discovered that they were all postgraduates. One had a Master's degree while the other had a PhD. The findings are presented in table 4.10 below.

Table 4. 10: Highest education level of the study participants from EASLIS who answered the questionnaires

Highest education level	Number	Percentage
Master's degree	1	50%
PhD	1	50%
Total	2	100%

Source: Primary data (2023)

The above findings revealed that the study participants from UCU who answered the questionnaires had high levels of education and could provide rich insights about e-learning in their LIS education school.

4.3.2.4 Level of experience in e-learning at UCU for those who answered the questionnaires

The study findings revealed that most of the study participants (50%) from UCU who answered the questions had a level of experience in e-learning at UCU of 1-5 years, while 50% had a level of experience in e-learning at UCU of 6-10 years. This is represented in table 4.11 below.

Table 4. 11: Level of experience in e-learning for the study participants from UCU who answered the questionnaires

Level of experience	Number	Percentage
1-5 years	1	50%
6-10 years	1	50%
11 years and above	0	0%
Total	2	100%

Source: Primary data (2023)

The above findings show that all the study participants had reasonable experience in e-learning at UCU with all the study participants having a level of experience in e-learning at UCU of one and above years. Therefore, all the study participants were knowledgeable about e-learning and could ably inform the study.

4.3.2.5 Biographic information of the study participants from UCU who answered the interviews

One interview was conducted at UCU with one male under the age group of 30-39 years. The study participant had a Master's degree with a level of experience in e-learning at UCU of 1-5 years. Like with the questionnaires, based on the level of education and experience in e-learning, it was deduced that the study participant was highly knowledgeable about e-learning at UCU and would thus provide informative information to inform the study.

Part two: Study findings

4.4 E-learning initiatives at EASLIS and UCU

The first objective of the study was to find out the e-learning initiatives at EASLIS and UCU. The objective aimed at learning the e-learning initiatives carried out at both LIS education

schools. The findings below represent the responses from those who answered the questionnaires at EASLIS.

4.4.1 E-learning initiatives at EASLIS

Table 4.12 below illustrates the obtained findings from study participants at EASLIS who answered the questionnaires. "SA" stands for "Strongly Agree", "A" stands for "Agree", "NS" stands for "Not Sure", "D" stands for "Disagree" and "SD" stands for "Strongly Disagree".

Table 4. 12: E-learning initiatives at EASLIS

Measurement Items	SA	Rate	A	Rate	NS	Rate	D	Rate	SD	Rate
Adoption of e-learning initiatives										
Our LIS school includes e-learning initiatives in pedagogy	6	75%	2	25%						
E-learning initiatives are one of the most common ways of teaching in our LIS school			6	75%			2	25%		
Staff understand the relevance of e-learning initiatives in pedagogy	1	12.5%	6	75%			1	12.5%		
Students appreciate the access to e-learning initiatives in pedagogy			1	12.5%	6	75%	1	12.5%		
E-learning initiatives have greatly been adopted in our LIS school	1	12.5%	4	50%	1	12.5%	2	25%		
Utilization of e-learning initiatives										
LIS staff utilise e-learning initiatives in pedagogy	4	50%	3	37.5%	1	12.5%				
Students utilise e-learning initiatives in pedagogy	2	25%	5	62.5%	1	12.5%				

E-learning is the most preferred way of learning					7	87.5%	1	12.5%		
Management support of e-learning initiatives										
The management supports e-learning initiatives in the LIS school	4	50%	4	50%						
E-learning initiatives are given top priority in the LIS school			5	62.5%	2	25%	1	12.5%		
There is a governing committee to manage e-learning initiatives in the LIS school	2	25%	4	50%	1	12.5%			1	12.5%

Source: Primary data (2023)

When it came to e-learning initiatives, the researcher sought to find out how they had been adopted, utilised and the level of management support. For adoption, 75% of the study participants strongly agreed that EASLIS included e-learning initiatives in pedagogy while 25% agreed. Given the rate of those who strongly agreed and agreed (100%), it was concluded the e-learning initiatives were part of the pedagogy at EASLIS. Additionally, 75% of the study participants agreed that e-learning initiatives were one of the most common ways of teaching at EASLIS while 25% disagreed. Since those who agreed were 50% more than those who disagreed, it was concluded that e-learning initiatives were one of the most common ways of teaching in EASLIS. Furthermore, 12.5% of the study participants strongly agreed that staff understood the relevance of e-learning initiatives in pedagogy, 75% agreed while 12.5% disagreed. Given that 87.5% of the study participants strongly agreed and agreed, it was deduced that EASLIS staff understood the relevance of e-learning initiatives in pedagogy. When it came to if EASLIS students appreciated having access to e-learning initiatives in pedagogy, 12.5% of the study participants agreed, 75% were not sure while 12.5% disagreed. Since 75% of the study participants were not sure, it was concluded that it was uncertain if students appreciated access to e-learning initiatives in pedagogy. Lastly, 12.5% of the study participants strongly

agreed that e-learning initiatives had been greatly adopted in EASLIS, 50% agreed, 12.5% were not sure while 25% disagreed. Since those who strongly agreed and agreed were more (62.5%), it was concluded that e-learning initiatives had been greatly adopted in EASLIS.

When it came to the utilization of e-learning initiatives at EASLIS, 50% of the study participants strongly agreed that EASLIS staff utilised e-learning initiatives in pedagogy, 37.5% agreed while 12.5% were not sure. Since those who strongly agreed and agreed were more (87.5%), the researcher concluded that EASLIS staff utilised e-learning initiatives in pedagogy. Furthermore, 25% of the study participants strongly agreed that students utilised e-learning initiatives in pedagogy, 62.5% agreed while 12.5% were not sure. Since 87.5% of the study participants strongly agreed and agreed that students utilised e-learning initiatives in pedagogy, the researcher concluded that EASLIS students utilised e-learning initiatives in pedagogy. Lastly, 87.5% of the study participants were not sure if e-learning was the most preferred way of learning while 12.5% disagreed. This implied that it was uncertain if e-learning was the most preferred way of learning.

The last part under e-learning initiatives was about management support of e-learning initiatives. 50% of the study participants strongly agreed that the EASLIS management supported e-learning initiatives while other 50% agreed with this assertion. Since 100% of the study participants strongly agreed and agreed, it was deduced that the EASLIS management supported e-learning initiatives. On the other hand, 62.5% of the study participants agreed that e-learning initiatives were given top priority at EASLIS, 25% were not sure while 12.5% disagreed. Since those who agreed were more (62.5%), it was concluded that e-learning initiatives were given top priority at EASLIS. Lastly, 25% of the study participants strongly agreed that there was a governing committee to manage e-learning initiatives at EASLIS, 50% agreed, 12.5% were not sure while another 12.5% strongly disagreed. Since those who strongly agreed and agreed were more (75%), it was concluded that EASLIS had a governing committee to manage e-learning initiatives.

From the interviews held, the researcher found out that EASLIS implemented different e-learning initiatives. One study participant shared that:

We use ICT equipment such as projectors for face-to-face learning, we have an e-learning management system: Makerere University E-learning Environment (MUELE), we also have a laptop project for staff and students by Stanbic bank and we acquire zoom licences for staff.

Apart from the above initiatives, the researcher also found out that there was an e-learning policy called Open Distance and E-learning (ODEL) which was also in place, and that staff received training on e-learning initiatives. E-learning had become integrated with all courses at EASLIS through blended learning and the parent university, Makerere University, had taken strides in promoting e-learning initiatives. These included appointing an e-learning coordination unit at the university level and monitoring implementation of e-learning initiatives although each school such as EASLIS initiated their own way of implementation.

4.4.2 E-learning initiatives at UCU

Table 4.13 below illustrates the obtained findings from study participants at UCU who answered the questionnaires. "SA" stands for "Strongly Agree", "A" stands for "Agree", "NS" stands for "Not Sure", "D" stands for "Disagree" and "SD" stands for "Strongly Disagree".

Table 4. 13: E-learning initiatives at UCU

Measurement Items	SA	Rate	A	Rate	NS	Rate	D	Rate	SD	Rate
Our LIS school includes e-learning initiatives in pedagogy					2	100%				
E-learning initiatives are one of the most common ways of teaching in our LIS school					1	50%	1	50%		
Staff understand the relevance of e-learning initiatives in pedagogy			1	50%	1	50%				
Students appreciate the access to e-learning initiatives in pedagogy			1	50%	1	50%				
E-learning initiatives have greatly been adopted in our LIS school			2	100%						

LIS staff utilise e-learning initiatives in pedagogy			2	100%						
Students utilise e-learning initiatives in pedagogy			2	100%						
E-learning is the most preferred way of learning	1	50%			1	50%				
The management supports e-learning initiatives in the LIS school							2	100%		
E-learning initiatives are given top priority in the LIS school					1	50%	1	50%		
There is a governing committee to manage e-learning initiatives in the LIS school					2	100%				

Source: Primary data (2023)

From the field findings, 100% of the study participants agreed that UCU included e-learning initiatives in pedagogy; 50% of the study participants were not sure if e-learning was one of the most common ways of teaching at UCU while 50% disagreed; 50% of the study participants agreed that LIS staff at UCU understood the relevance of e-learning initiatives in pedagogy while 50% were not sure; 50% of the study participants agreed that LIS students at UCU appreciated the access to e-learning initiatives in pedagogy while 50% were not sure; 100% of the study participants agreed that e-learning initiatives had greatly been adopted at UCU; 100% of the study participants agreed that UCU LIS staff utilised e-learning initiatives in pedagogy; 100% of the study participants agreed that UCU LIS students utilised e-learning initiatives in pedagogy; 50% of the study participants strongly agreed that e-learning was the most preferred way of learning while 50% were not sure; 100% of the study participants disagreed that management supported e-learning initiatives at UCU LIS education school; 50% of the study participants were not sure if e-learning initiatives were given top priority at UCU LIS while 50% disagreed; and 100% of the study participants were not sure if there was a governing committee to manage e-learning initiatives at UCU LIS education school.

From the interview findings, it was shared that the learning initiatives at UCU LIS education school included:

The Alpha Management Information System, UCU E-learning platform and a Moodle Open Access System. Those are the e-learning initiatives at UCU.

The researcher also found out that unlike EASLIS, the LIS education school at UCU did not adopt or acquire zoom accounts for its LIS staff. LIS staff at UCU who had zoom accounts had acquired them by their own means.

4.5 Degree of user-adoption of e-learning

The second objective of the study aimed at finding out the degree of user adoption of e-learning at EASLIS and UCU. The researcher sought to find out how well e-learning was adopted by users in these LIS education schools.

4.5.1 Degree of user-adoption of e-learning at EASLIS

The findings for the degree of user-adoption of e-learning at EASLIS as per the answered questionnaires are provided in table 4.14 below. "SA" stands for "Strongly Agree", "A" stands for "Agree", "NS" stands for "Not Sure", "D" stands for "Disagree" and "SD" stands for "Strongly Disagree".

Table 4. 14: Degree of user-adoption of e-learning at EASLIS

Measurement Items	SA	Rate	A	Rate	NS	Rate	D	Rate	SD	Rate
E-learning has greatly been adopted at our LIS school	3	37.5%	3	37.5%	2	25%				
LIS staff advocate for e-learning in pedagogy	2	25%	6	75%						
LIS students are familiar with e-learning at our LIS school			7	87.5%	1	12.5%				

LIS staff are well-equipped with knowledge to teach using e-learning	1	12.5%	1	12.5%	5	62.5%	1	12.5%		
LIS students prefer learning using e-learning					7	87.5%			1	12.5%

Source: Primary data (2023)

From the findings, 37.5% of the study participants strongly agreed that e-learning had greatly been adopted at EASLIS, 37.5% agreed while 25% were not sure. Given that 75% of the study participants strongly agreed and agreed, it was concluded that e-learning was greatly adopted at EASLIS. Secondly, 25% of the study participants strongly agreed that EASLIS staff advocated for e-learning in pedagogy while 75% of the study participants agreed. Since 100% of the study participants strongly agreed and agreed, it was deduced that EASLIS staff advocated for e-learning in pedagogy. Thirdly, 87.5% of the study participants agreed that students at EASLIS were familiar with e-learning while 12.5% of the study participants were not sure. Given that 87.5% of the study participants agreed, the researcher concluded that EASLIS students were familiar with e-learning. Furthermore, 12.5% of the study participants strongly agreed that EASLIS staff were well-equipped with knowledge to teach using e-learning, 12.5% agreed, 62.5% were not sure while 12.5% disagreed. Since most of the study participants (62.5%) were not sure, it was concluded that it was uncertain if EASLIS staff were well-equipped with knowledge to teach using e-learning. Lastly, 87.5% of the study participants were not sure if EASLIS students preferred learning using e-learning while 12.5% of the study participants strongly disagreed. Since 87.5% of the study participants were not sure, it was concluded that it was uncertain if EASLIS students preferred learning using e-learning.

In the interviews, the researcher was able to learn that users accessed e-learning initiatives using the university's internet and that the university had partnered with major internet service providers to provide access to the learning management system for free. However, internet costs had to be incurred for users who used external links to access them. The beneficiaries of e-learning were students and staff and that since 2020, e-learning had been blended with the

existing pedagogy and thus it was employed throughout the whole learning process. When asked how receptive EASLIS staff and students were to e-learning, a study participant shared that:

For EASLIS, it is the younger staff that are more receptive to e-learning than the older ones, however, EASLIS under the college of computing and information sciences has great appreciation for technology. Students have also been receptive to e-learning at both graduate and undergraduate level.

The findings revealed that younger staff at EASLIS had more appreciation for e-learning compared to older ones, however, all students were receptive to e-learning. The researcher also learnt that e-learning was utilised every time a course was run and that the level of interaction differed. More engaging modules were accessed more compared to less engaging ones. Therefore, despite a considerable user degree of adoption of e-learning at EASLIS, users appreciated engaging content more than less engaging one.

4.5.2 Degree of user-adoption of e-learning at UCU

The findings for the degree of user-adoption of e-learning at UCU as per the answered questionnaires are provided in table 4.15 below. "SA" stands for "Strongly Agree", "A" stands for "Agree", "NS" stands for "Not Sure", "D" stands for "Disagree" and "SD" stands for "Strongly Disagree".

Table 4. 15: Degree of user-adoption of e-learning at UCU

Measurement Items	SA	Rate	A	Rate	NS	Rate	D	Rate	SD	Rate
E-learning has greatly been adopted at our LIS school			2	100%						
LIS staff advocate for e-learning in pedagogy			1	50%	1	50%				

LIS students are familiar with e-learning at our LIS school			2	100%						
LIS staff are well-equipped with knowledge to teach using e-learning							2	100%		
LIS students prefer learning using e-learning	1	50%			1	50%				

Source: Primary data (2023)

At UCU, 100% of the study participants agreed that e-learning had been greatly adopted at the LIS school; 50% of the study participants agreed that LIS staff advocated for e-learning in pedagogy while 50% of the study participants were not sure; 100% of the study participants agreed that LIS students were familiar with e-learning; 100% of the study participants disagreed that staff were well-equipped with knowledge to teach using e-learning; while 50% of the study participants strongly agreed that LIS students preferred learning using e-learning while 50% were not sure.

The interview findings revealed that despite the presence of e-learning initiatives such as the Alpha Management System, e-learning was not commonly practiced because LIS staff had to use personal resources to acquire licences for platforms such as Zoom, which were popular for supporting e-learning. This affected the adoption rates of e-learning among users.

4.5 Challenges affecting the adoption of e-learning at EASLIS and UCU

The third objective of the study was to find out the challenges affecting the adoption of e-learning at EASLIS and UCU. The researcher sought to find out the barriers or limitations to e-learning adoption at these LIS education schools.

4.5.1 Challenges affecting the adoption of e-learning at EASLIS

The findings for the degree of user-adoption of e-learning at EASLIS as per the questionnaires are provided in table 4.16 below. "SA" stands for "Strongly Agree", "A" stands for "Agree", "NS" stands for "Not Sure", "D" stands for "Disagree" and "SD" stands for "Strongly Disagree".

Table 4. 16: Challenges affecting the adoption of e-learning at EASLIS

Measurement Items	SA	Rate	A	Rate	NS	Rate	D	Rate	SD	Rate
Lack of financial resources to support e-learning	7	87.5%	1	12.5%						
Limited time to allocate to e-learning	1	12.5%	6	75%			1	12.5%		
Low compliance levels among LIS staff on the use of e-learning for pedagogy	1	12.5%	4	50%	1	12.5%	2	25%		

Source: Primary data (2023)

From the above findings, 87.5% of the study participants strongly agreed that the lack of financial resources to support e-learning was a challenge faced while 12.5% of the study participants agreed. Given that 100% of the study participants strongly agreed and agreed, the researcher concluded that the lack of financial resources was a challenge faced in the adoption of e-learning at EASLIS. On the other hand, 12.5% of the study participants strongly agreed that there was also a challenge of limited time to allocate to e-learning, 75% of the study participants agreed while 12.5% of the study participants disagreed. Given that 87.5% of the study participants strongly agreed and agreed, it was concluded that limited time to allocate to e-learning was also a challenge faced. In addition, 12.5% of the study participants strongly agreed that there were low compliance levels among LIS staff on the use of e-learning for pedagogy,

50% of the study participants strongly agreed, 12.5% of the study participants were not sure while 25% of the study participants disagreed. Given the high rate of those who strongly agreed and agreed (62.5%), the researcher concluded that there were low compliance levels among EASLIS staff on the use of e-learning for pedagogy.

From the interviews, the researcher came to learn about other challenges affecting e-learning at EASLIS. A study participant shared that:

Low budgets are provided for equipment such as projectors and staff laptops which affects the adoption of e-learning. We also have a challenge of high connectivity costs, high costs of technology, limited skills, heavy workloads, intellectual property challenges and absence of technological infrastructure to support learners with disabilities.

The researcher learnt that these challenges affected the accessibility, usability and adoption of e-learning at EASLIS. They also limited the development of e-learning materials. Additionally, due to the low budgets, some staff had resorted to using their personal resources to facilitate e-learning which was not ideal. This affected the adoption of e-learning at EASLIS.

4.5.2 Challenges affecting the adoption of e-learning at UCU

The findings for the degree of user-adoption of e-learning at UCU as per the questionnaires are provided in table 4.17 below. "SA" stands for "Strongly Agree", "A" stands for "Agree", "NS" stands for "Not Sure", "D" stands for "Disagree" and "SD" stands for "Strongly Disagree".

Table 4. 17: Challenges affecting the adoption of e-learning at UCU

Measurement Items	SA	Rate	A	Rate	NS	Rate	D	Rate	SD	Rate
Lack of financial resources to support e-learning	2	100%								
Limited time to allocate to e-learning	1	50%	1	50%						
Low compliance levels among LIS staff on the use of e-learning for pedagogy			1	50%	1	50%				

Source: Primary data (2023)

From the study findings, 100% of the study participants agreed that there were limited financial resources to support e-learning at UCU; 50% of the study participants strongly agreed that there was limited time to allocate to e-learning while 50% of the study participants agreed; 100% of the study participants disagreed that there were no e-learning initiatives; 50% of the study participants agreed that there were low compliance levels among UCU LIS staff on the use of e-learning for pedagogy while 50% of the study participants were not sure.

The interviews revealed that the main challenges affecting e-learning adoption at UCU LIS education school were limited funding, limited staff, high internet costs and failure of the institution to purchase for staff licences for applications such as Zoom. This discouraged LIS staff from using e-learning initiatives at UCU.

4.6 Discussion of the findings

4.6.1 Comparison of e-learning initiatives at EASLIS and UCU

The researcher focused on the type of e-learning initiatives and their adoption and utilization as well management support in the specific LIS education schools. For the e-learning initiatives, EASLIS used the Makerere University E-learning Platform (MUELE), Zoom and ICT equipment such as projectors which were complemented with face-to-face learning. On the other hand, UCU used the Alpha Management Information System, the UCU E-learning Platform and the Moodle Open Access System. This information is summarized in table 4.18 below.

Table 4. 18: Comparison of e-learning initiatives at EASLIS and UCU

LIS education school	E-learning initiatives
EASLIS	<ul style="list-style-type: none">• MUELE• Zoom• ICT equipment
UCU	<ul style="list-style-type: none">• Alpha Management Information System• UCU E-learning Platform

- Moodle Open Access System

Source: Primary data (2023)

For the adoption of e-learning, e-learning was part of the pedagogy for both EASLIS and UCU and e-learning initiatives had greatly been adopted. When it came to the utilization of e-learning in pedagogy, it was established that LIS staff at both EASLIS and UCU utilised e-learning in pedagogy. However, it was discovered that management did not support e-learning initiatives at UCU and there was no governing committee to manage e-learning initiatives either unlike at EASLIS. These findings are presented in table 4.19 below.

Table 4. 19: Comparison of the adoption and utilization of e-learning and management support for e-learning

ADOPTION AND UTILIZATION OF E-LEARNING AND EASLIS UCU MANAGEMENT SUPPORT FOR E-LEARNING		
E-learning is part of the pedagogy	Yes	Yes
E-learning initiatives have greatly been adopted	Yes	Yes
LIS staff utilise e-learning in pedagogy	Yes	Yes
Management supports e-learning initiatives	Yes	No
There is a governing committee to manage e-learning initiatives	Yes	No

Source: Primary data (2023)

The above findings agree with existing research which shares that e-learning initiatives in LIS education schools differ due to the differences in capacities. Rafique *et al* (2021) noted that e-learning initiatives were being provided through online learning management systems and virtual classes. As seen in table 4.17 above, the same is evident with EASLIS and UCU which have online learning management systems, and for EASLIS, even Zoom where it can conduct virtual classes. The findings also reveal that e-learning has been adopted by both LIS education schools to a certain degree. This could be attributed to many factors such as the COVID-19 pandemic which resulted in school closures and necessitated the need for online learning to keep education institutions such as EASLIS and UCU functional. It could also be attributed to the shifts in LIS careers and professions which have made the integration of technology in learning a necessity for LIS education schools as reported by studies such as those of Elangovan and Radhakrishnan

(2020) and Matusiak et al. (2014). However, e-learning has been taken more seriously at EASLIS than UCU. This is because the management at EASLIS supports e-learning initiatives and there is a governing committee to manage e-learning unlike at UCU. The presence of these factors signifies that there is a high adoption rate of e-learning at EASLIS than at UCU. There is also a possibility that it is structured or follows a certain framework. As earlier reported, EASLIS has the ODEL policy which covers e-learning within the school. This shows how it is taking e-learning more seriously than UCU.

4.6.2 Comparison of the degree of user-adoption of e-learning at EASLIS and UCU

The researcher compared the degree of user-adoption of e-learning at EASLIS and UCU based on the study's findings. The results are presented in table 4.20 below.

Table 4. 20: Comparison of the degree of user-adoption of e-learning at EASLIS and UCU

DEGREE OF USER-ADOPTION OF E-LEARNING	EASLIS	UCU
E-learning has been greatly adopted	Yes	Yes
LIS staff advocate for e-learning in pedagogy	Yes	Not sure
LIS students are familiar with e-learning	Yes	Yes
LIS staff are well-equipped with knowledge to teach using e-learning	Not sure	No
LIS students prefer e-learning	Not sure	Not sure

Source: Primary data (2023)

The results revealed that e-learning had been greatly adopted at both EASLIS and UCU and that LIS students in both LIS education schools were familiar with e-learning. However, it was uncertain if LIS staff advocated for e-learning in pedagogy at UCU nor if LIS students at both EASLIS and UCU preferred e-learning. On the other hand, it was also uncertain if LIS staff at EASLIS were well-equipped with knowledge to teach using e-learning while for UCU, it was discovered that they were not. For UCU, this could be attributed to the absence of management support and the lack of a governing committee to provide guidance and spearheading initiatives such as e-learning pieces of training. On the other hand, at EASLIS, it was discovered that younger staff appreciated e-learning more than older staff and users accessed modules that were more engaging compared to less engaging ones. This was in spite of the presence of e-learning

training initiatives. Therefore, factors such as management support, presence of a governing committee, nature of content and age of the staff affected the user-adoption rates of e-learning in the LIS education schools. Some studies already reported that there is a common tendency of LIS educators to prioritize the learning mode they are familiar with than new initiatives such as e-learning (Nyemike *et al.*, 2022; Bada *et al.*, 2020). This implies that some educators prefer the traditional way of teaching than a blended way or purely digital methods.

4.6.3 Challenges affecting e-learning adoption at EASLIS and UCU

The findings revealed different challenges affecting e-learning adoption at EASLIS and UCU as presented in table 4.21 below.

Table 4. 21: Comparison of challenges affecting e-learning adoption at EASLIS and UCU

CHALLENGES AFFECTING E-LEARNING ADOPTION	EASLIS	UCU
Lack of financial resources	Yes	Yes
Limited time to allocate to e-learning	Yes	No
Lack of e-learning initiatives	No	No
Low compliance levels among staff on the use of e-learning for pedagogy	Yes	Not sure
Inadequate staff	No	Yes
Poor/inadequate infrastructure	Yes	Yes
High connectivity costs	Yes	Yes
High costs of technology	Yes	Yes
Intellectual problems	Yes	Yes

Source: Primary data (2023)

The common identified challenge for both LIS education schools was limited financial resources. This challenge affected the LIS education schools in different ways. For example, at EASLIS, LIS staff did not have access to enough infrastructure and some had to use personal resources such as their projectors or laptops to carry on with e-learning. On the other hand, at UCU, the institution could not purchase licences for video conferencing platforms such as Zoom for LIS staff. Therefore, staff had to use their own incomes to acquire licences for video conferencing platforms they preferred to use for e-learning. Other challenges that were faced included

intellectual property challenges, absence of technological infrastructure, high connectivity costs, high costs of technology. Topping et al. (2022) noted that connectivity issues due to high costs affected e-learning and the same was true for poor and inadequate infrastructure. These are big challenges because the successful implementation of e-learning in LIS education schools requires the presence of necessary infrastructure and internet connectivity. This is therefore a challenge that needs to be solved. EASLIS had gone a step to partner with internet service providers to allow users to access their online learning management systems for free but the same cannot be said for UCU. The absence of financial resources can also be a big hindrance to e-learning adoption because it affects all e-learning implementation processes (Borgohain et al., 2022; Sharma, 2018). For example, LIS education schools with limited finances do not have enough capacity to obtain good infrastructure, strengthen security systems, recruit enough staff, and facilitate compliance measures which affects the degree of e-learning adoption.

CHAPTER FIVE: SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study sought to examine the adoption of e-learning at EASLIS and UCU. The aim of this study was to examine the adoption of e-learning in LIS education schools by comparing e-learning adoption at EASLIS and UCU to determine whether there are significant differences between the two institutions and to propose strategies to improve their adoption rates of e-learning. This chapter provides the summary of the findings and the subsequent conclusions. The recommendations provided are for the individual LIS education schools and general recommendations.

5.2 Summary of the findings

5.2.1 E-learning initiatives at EASLIS and UCU

It was revealed that both LIS education schools had online learning management systems to facilitate e-learning and EASLIS in particular conducted virtual classes through Zoom which is a videoconferencing application. The findings also revealed that e-learning had been incorporated as part of the pedagogy in both LIS education schools and that the e-learning initiatives had been greatly adopted. LIS staff at both EASLIS and UCU also utilised e-learning in pedagogy. However, while EASLIS benefitted from management support and the presence of a governing committee to manage e-learning, the same was not true for UCU. UCU therefore had a challenge of investing more efforts in e-learning by lobbying for more management support and the installation of a governing committee.

5.2.2 Degree of user-adoption of e-learning at EASLIS and UCU

The findings revealed that both LIS education schools had greatly adopted e-learning and that their LIS students were familiar with e-learning initiatives. However, it was uncertain if the LIS students preferred e-learning, and at UCU, it was uncertain if LIS staff advocated for e-learning in pedagogy unlike at EASLIS. Lastly, it was not certain if LIS staff were well-equipped with knowledge to teach using e-learning at EASLIS although for UCU, it was established that they were not. There was thus a need to train LIS in teaching using e-learning.

5.2.3 Challenges affecting e-learning adoption at EASLIS and UCU

It was revealed that both LIS education schools were facing challenges that affected e-learning adoption such as limited financial resources, high connectivity costs, intellectual property challenges, high costs of technology among others. These affected the adoption of e-learning as they made it difficult to utilise and adopt. EASLIS however had a high level of low compliance levels among staff while UCU had limited staff. These needed to be resolved.

5.3 Conclusions

5.3.1 E-learning initiatives at EASLIS and UCU

It was concluded that both LIS education schools had high adoption rates of e-learning. However, e-learning seemed to be greatly adopted at EASLIS than at UCU due to the presence of management support and a governing committee to manage e-learning. Therefore, it was necessary for UCU to lobby for more management support as well as install a governing committee to manage e-learning as strides to improve e-learning adoption at its LIS education school.

5.3.2 Degree of user-adoption of e-learning at EASLIS and UCU

The study concluded that both LIS staff from EASLIS and UCU needed more training in e-learning content delivery to increase their interest and competence in teaching using e-learning. This would improve the degree of user-adoption of e-learning at both LIS education schools.

5.3.3 Challenges affecting e-learning adoption at EASLIS and UCU

It was concluded that both LIS education schools had to lobby for more funding to support their e-learning initiatives given that the presence of adequate funding would facilitate them in creating an enabling environment for e-learning adoption, such as by acquiring more technology, strengthening security systems and ensuring that internet connections are stable. EASLIS also has to increase compliance levels among staff while UCU needs to recruit more LIS staff.

5.4 Recommendations

5.4.1 Recommendations for EASLIS

- Based on the study findings, the researcher recommends the increase of compliance levels among LIS staff at EASLIS to enhance the degree of adoption of e-learning. This

can be through increasing the level of awareness or sensitization and adopting more stringent rules to push LIS staff, including the older ones to utilise e-learning initiatives.

- EASLIS should also find strategies to reduce staff workloads to facilitate them in creating engaging content which is preferred by LIS students. This can be through blending online learning with physical learning and structuring the delivery of course modules within reasonable timeframes.

5.4.2 Recommendations for UCU

- It is recommended that UCU should lobby for more management support to enhance the degree of adoption of e-learning. This could be through instigating talks with the management or discussing the interest of increasing the adoption of e-learning within the LIS education school with faculty heads.
- UCU should also install a governing committee to manage e-learning within its LIS education school. This will facilitate the standardization of e-learning including drafting frameworks or policies to govern e-learning and improved efforts in e-learning implementation, supervision, monitoring and control.
- There is also a need for UCU to recruit more LIS staff to reduce the staff workload and provide a chance for staff to prepare e-learning content which they can deliver during the courses.
- Lastly, UCU should purchase licences for staff to use video conferencing applications such as Zoom which can easily be accessed by students inside or outside the institution and are more engaging than online learning management systems which are mostly asynchronous.

5.4.3 General recommendations

- Both EASLIS and UCU are urged to conduct e-learning pieces of training with LIS staff to enhance their capacity to deliver learning content through the available learning initiatives. There is also a need to increase sensitization levels of e-learning to educate LIS staff about the benefits and motivate them to utilise e-learning initiatives.
- Both EASLIS and UCU should lobby for more funding to strengthen their internal capacity in implementing and sustaining e-learning efforts. More funding can be lobbied

from different partners such as civil society organisations, the Ministry of Education and the Government of Uganda, and as for UCU, even the Church of Uganda can be asked for assistance.

5.5 Areas for further research

The researcher recommends the following as areas for further research:

- An investigation into the preferred mode of learning among LIS students at EASLIS.
- LIS students' perceptions about e-learning content delivery in selected LIS education schools in East Africa.
- The impact of e-learning on the LIS profession in Uganda.

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APPENDIX

Appendix 1: Interview guide

Dear Participant,

I am Wejuli Joseph, a student at Uganda Christian University pursuing a Master of Library and Information Studies. I am carrying out research entitled “*An examination of the adoption of e-learning in library and information science (LIS) education schools: a comparative case study between EASLIS and UCU*”. I would like you to participate in my study by participating in this interview. The objectives of the study are: i) To compare the e-learning initiatives at EASLIS and UCU; ii) to compare the degree of user-adoption of e-learning at EASLIS and UCU; iii) to examine the challenges affecting the adoption of e-learning at EASLIS and UCU; and to propose strategies to increase the adoption of e-learning at EASLIS and UCU. Your responses will be treated with utmost confidentiality and for academic purposes only. If for any reason you feel the need to withdraw from participating, you are free to do that any time as you wish because participation in this study is voluntary. Kindly let me know when you are available for the interview so that I can update the time on my schedule. The interview will take 25-40 minutes of your time.

I await to hear from you.

Wejuli Joseph

josephwe3@gmail.com

Consent to participate in the interviews

1. I hereby confirm that I have been informed by the researcher, Joseph Wejuli, about the nature and conduct of this study.
2. I have the opportunity to ask any questions related to this study.
3. I have received, read, and understood the participant letter of information about the study.
4. I understand that all the information the researcher gathers is confidential and will not prejudice me in any way.

5. I voluntarily agree to take part in this research.

Please tick the box below to indicate your consent.

I have read the consent form and hereby agree to participate in this study.

Bio-data questions

Age Bracket (Please tick what is applicable):

- 20-29
- 30-39
- 40-49
- 50 and above

Gender (Please tick what is applicable):

- Male
- Female

Highest Level of Education (Please tick what is applicable):

- Diploma
- Bachelor's Degree
- Master's Degree
- PhD

Profession:

Years of Work Experience:

LIS School associated to:

E-learning initiatives at EASLIS and UCU

1. Which e-learning initiatives are implemented at EASLIS/UCU?
2. How relevant are these e-learning initiatives to LIS education at EASLIS/UCU?
3. How are the e-learning initiatives designed at EASLIS/UCU?
4. How are the e-learning initiatives accessed at EASLIS/UCU?
5. Who are the beneficiaries of the e-learning initiatives at EASLIS/UCU?

The degree of user-adoption of e-learning at EASLIS and UCU

6. How often is e-learning employed in LIS education at EASLIS/UCU?
7. How receptive are LIS staff about e-learning in pedagogy at EASLIS/UCU?
8. How receptive are LIS students about e-learning in pedagogy?
9. Which modules are often accessed under e-learning at EASLIS/UCU?
10. How often is e-learning utilised in LIS education at EASLIS/UCU?

Challenges affecting e-learning at EASLIS and UCU

11. Which factors inhibit e-learning in LIS education at EASLIS/UCU?
12. How do the above factors inhibit e-learning in LIS education at EASLIS/UCU?
13. Kindly share a personal experience on challenges you have faced with e-learning at EASLIS/UCU.

Strategies to enhance e-learning at EASLIS and UCU

14. What strategies can be adopted to enhance e-learning at EASLIS/UCU?
15. What are the current ways through which e-learning is being supported in LIS education at EASLIS/UCU?

Appendix 2: Questionnaire guide

Introduction

I am Wejuli Joseph, a student at Uganda Christian University pursuing a Master of Library and Information Studies. I am carrying out research entitled “*An examination of the adoption of e-learning in library and information science (LIS) education schools: a comparative case study between EASLIS and UCU*”. I would like you to participate in my study by sparing some time to complete this questionnaire. Your responses will be treated with utmost confidentiality and for academic purposes only.

Respondent Information

For each of the following questions, please tick what applies to you.

Gender:

- Male
- Female

Age bracket:

- 20-29
- 30-39
- 40-49
- 50 and above

Highest level of education:

- Diploma
- Bachelor's Degree
- Master's Degree
- PhD

LIS education school associated to:

- EASLIS

- UCU

Experience in e-learning at EASLIS/UCU

- 1-5 years
 6-10 years
 11 years and above

E-learning Initiatives at EASLIS or UCU

For this study, e-learning initiatives are ICT-related interventions utilised in pedagogy. On a scale of 1-5 (Strongly Disagree (SD) = 1, Disagree (D) = 2, Not Sure (NS) = 3, Agree (A) = 4 and Strongly Agree (SA) = 5), kindly indicate your level of agreement by ticking the most appropriate number.

CODE	Measurement Items	SA	A	NS	D	SD
A	Adoption of E-learning initiatives					
A1	Our LIS school includes e-learning initiatives in pedagogy	5	4	3	2	1
A2	E-learning initiatives are one of the most common ways of teaching in our LIS school	5	4	3	2	1
A3	Staff understand the relevance of e-learning initiatives in pedagogy	5	4	3	2	1
A4	Students appreciate the access to e-learning initiatives in pedagogy	5	4	3	2	1
A5	E-learning initiatives have greatly been adopted in our LIS school	5	4	3	2	1
U	Utilization of E-learning initiatives					
U1	LIS staff utilise e-learning initiatives in pedagogy	5	4	3	2	1
U2	Students utilise e-learning initiatives in pedagogy	5	4	3	2	1
U3	E-learning is the most preferred way of learning	5	4	3	2	1
M	Management Support of E-learning Initiatives					
M1	The management supports e-learning initiatives in the LIS school	5	4	3	2	1
M2	E-learning initiatives are given top priority in the LIS school	5	4	3	2	1
M3	There is a governing committee to manage e-learning initiatives in the LIS school	5	4	3	2	1

Degree of User-Adoption of E-learning at EASLIS and UCU

This constitutes the factors that indicate the degree of user-adoption of e-learning at EASLIS and UCU. On a scale of 1-5 (Strongly Disagree (SD) = 1, Disagree (D) = 2, Not Sure (NS) = 3, Agree (A) = 4 and Strongly Agree (SA) = 5), kindly indicate your level of agreement on the following items.

CODE	Measurement Items	SA	A	NS	D	SD
D	Degree of User-Adoption					
D1	E-learning has greatly been adopted at our LIS school	5	4	3	2	1
D2	LIS staff advocate for e-learning in pedagogy	5	4	3	2	1
D3	LIS students are familiar with e-learning at our LIS school	5	4	3	2	1
D4	LIS staff are well-equipped with knowledge to teach using e-learning	5	4	3	2	1
D5	LIS students prefer learning using e-learning	5	4	3	2	1
D6	Any Other? Please specify:.....					

Challenges affecting the adoption of e-learning at EASLIS and UCU

This is composed of the barriers that hinder the adoption of e-learning at EASLIS and UCU. On a scale of 1-5 (Strongly Disagree (SD) = 1, Disagree (D) = 2, Not Sure (NS) = 3, Agree (A) = 4 and Strongly Agree (SA) = 5), kindly indicate your level of agreement by ticking the most appropriate number.

CODE	Measurement Items	SA	A	NS	D	SD
L	Limitations					
L1	Lack of financial resources to support e-learning	5	4	3	2	1
L2	Limited time to allocate to e-learning	5	4	3	2	1
L3	Lack of policies on e-learning	5	4	3	2	1
L4	Lack of awareness about e-learning	5	4	3	2	1
L5	Lack of top management support of e-learning	5	4	3	2	1
L6	Poor e-learning designs and systems	5	4	3	2	1

L7	Lack of e-learning initiatives	5	4	3	2	1
L8	Lack of staff assigned to lead e-learning	5	4	3	2	1
L9	Low compliance levels among LIS staff on the use of e-learning for pedagogy	5	4	3	2	1
L10	E-learning is not prioritized	5	4	3	2	1
L11	Lack of e-learning utilization skills	5	4	3	2	1
L12	Ignorance about what e-learning is	5	4	3	2	1
L13	Any Other? Please specify:.....					

Thank you for your time and kind cooperation!



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SCHOOL OF RESEARCH & POSTGRADUATE STUDIES

DISSERTATION CORRECTION COMPLIANCE REPORT BY THE CANDIDATE (POST VIVA FORM)

Date: 29/04/2024

Name of Candidate: WEJULI JOSEPH Reg. No: S20M63/004

Title of Dissertation: ADOPTION OF E-LEARNING IN SELECTED SCHOOLS OF LIBRARY AND INFORMATION SCIENCE (LIS) IN UGANDA

SN	COMMENTS BY VIVA VOCE PANEL	ACTION TAKEN	INDICATOR
1	Reconsider the dissertation title to accurately reflect the focus, such as "Adoption of eLearning in Selected Schools of Library and Information Science."	The title has been changed to the Adoption of eLearning in Selected Schools of Library and Information Science in Uganda	Refer to cover page
2	Conduct a thorough review of the literature, particularly on eLearning, ensuring comprehensive coverage.	The literature review has been expounded and presented per research objective	Refer to pages 7-12

3	Enhance the background section by providing a historical timeline of eLearning adoption globally, within East Africa, and nationally, highlighting significant milestones.	A historical timeline has been provided as recommended	Refer to pages 1-2
4	Incorporate citations of studies involving students predating 1999 who lacked awareness of eLearning.	This has been incorporated	Refer to pages 1-2
5	Discuss evolving trends in eLearning and compare with relevant studies to illustrate changes over time.	Evolving trends have been included in the background section	Refer to pages 1-3
6	Expand the literature scope to address all research objectives and incorporate comparative studies where necessary.	The literature review addresses all research objectives. No comparative study addressing the same variables was discovered	Refer to pages 7-12
7	Clarify the concept of pedagogy within the context of Library and Information Science (LIS) education and its integration with eLearning.	As described in the dissertation, pedagogy was used to the method and practice of teaching. In this case, by utilizing e-learning	Refer to the main body of the dissertation
8	Provide detailed explanations on the tools utilized in eLearning and their application.	The study focused on e-learning initiatives. The initiatives were related to pedagogy or how e-learning was being used to teach. The initiatives included ZOOM and the Alpha Management System among others.	Refer to pages 30-31, and 39
9	Address the infrastructure requirements for eLearning, including those mentioned regarding UCU, and ensure they are adequately discussed in the report.	Infrastructure requirements for e-learning have been adequately discussed	Refer to pages 42-43
10	Justify the exclusion of students and ICT teams from the study population and consider their inclusion for a comprehensive analysis.	The target population was LIS educators. This is why students and ICT teams were left out. However, another study in future can be conducted that targets students and ICT teams	Refer to page 14
11	Narrow down the scope of comparison in the title to focus specifically on UCU and the School of	The title of the dissertation has been changed as earlier recommended	Refer to cover page

	Education within it.		
12	Clearly define the parameters of comparison between EASLIS and UCU.	The parameters of comparison were derived from the research objectives	Refer to page 4
13	Thoroughly edit and proofread the document, summarizing key points for clarity and coherence.	The dissertation has been thoroughly edited and proofread as advised	
14	Ensure the role of the library is adequately addressed throughout the dissertation, particularly in relation to the study population.	The role of the library has adequately been addressed in relation to the study population	
15	Avoid repetition and ensure fairness in participant selection across all case study areas for a balanced comparative study.	This has been incorporated	
16	Clarify any confusion between case study and mixed methods in the methodology section.	The study used a case study research design and a mixed methods research approach	Refer to page 13

SN	COMMENTS BY EXTERNAL EXAMINER	ACTION TAKEN	INDICATOR
1	I recommend that the conceptual framework is revised. The Independent variables should have their own boxes	The conceptual framework has been revised accordingly	Refer to page 6
2	EASLIS had 17 respondents and UCU had 5 respondents. Since the study used all these, was that fair to UCU in a scientific study?	The study focused on e-learning utilisation and it was deductive, using general findings to generate conclusions	
3	the below statement should be linked to the findings “This can be through increasing the level of awareness or sensitization and adopting more stringent rules to push LIS staff, including the older ones to utilize e-learning initiatives” Was there evidence that the older ones were not using e-learning? Was this established	This was because it was reported that there was some level of hesitancy among older staff to utilize e-learning initiatives	
4			
5			

SN	COMMENTS BY INTERNAL EXAMINER	ACTION TAKEN	INDICATOR
1			e.g. Cover page
2			e.g Page 1, etc corrected
3			
4			
5			

WEJULI JOSEPH
Candidate's Name

Wejuli
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SSEKITTO FRANCIS
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Ssekitto
Signature