



POSSIBLE CONSTRICTIONS AFFECTING THE
MAINSTREAM IMPLEMENTATION OF E-
LEARNING IN PUBLIC NIGERIA
UNIVERSITIES
(USING UNIBEN AS A CASE STUDY).

BY

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ATTESTATION

I, AYETA BELIEVE, an undergraduate student in the Department of Computer Science, Faculty of Physical Sciences, University of Benin, Edo State, with matriculation number PSC1707648, hereby declare that the work I have submitted is entirely original to me, I attest to have done this project in partial fulfillment of the requirements for the award of Bachelor of Science (B.Sc.) Degree in Computer Science, University of Benin.

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CERTIFICATION

This is to verify that AYETA BELIEVE, an undergraduate student in the Department of Computer Science, Faculty of Physical Sciences, University of Benin, Edo State, with matriculation number PSC1707648 did this project in partial fulfilment of the requirements for the award of Bachelor of Science (B.Sc.) in Computer Science, University of Benin, under my supervision.

PROF. ANTHONY IMIANVAN
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APPROVAL

This project report prepared by AYETA BELIEVE, an undergraduate student in the Department of Computer Science, Faculty of Physical Sciences, University of Benin, Edo State, with matriculation number PSC1707648 is hereby approved in partial fulfilment of the requirements for the award of Bachelor of Science (B.Sc.) Degree in Computer Science.

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DEDICATION

This project is dedicated to God Almighty, who is and forever will be the source of my courage and strength. I can never be grateful enough for His mercies and favors.

ABSTRACT

The main thrust of this research is to identify issues and strategies that can help in the implementation of e-learning in higher educational institutions in Nigeria (using UNIBEN as a case study). The background review concentrated on theoretically established ways of implementing this technologically-driven education in such pedagogic strategies, technological strategies, staff issues, financial issues and collaboration between government and private sector agencies. The research adopted the exploratory method of research to critically examine the complexities involved in the real-world context in implanting ICT for education in order to address the issues involved. The research findings affirm the need to encourage e-learning implementation in Nigerian higher educational institutions.

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CHAPTER ONE

INTRODUCTION

1.0. Background of study

It is a well-known truth that communications and information technologies (CITs) have fundamentally changed almost every aspect of modern life, and its influence on higher education cannot be understated. It is also important to highlight that over the past ten years, new information and communication technologies have had a tremendous impact on the global economy, corporate management, globalization trends, and education at all levels (Guri-Rosenblit, 2005). Additionally, it has been expected that the use of these new technologies will result in a significant restructuring of university teaching and learning methods.

Even though interactive technologies and communication systems can be used to improve the learning experience of recipients, such as students, trainees, and lecturers; raise standards; and increase participation in lifelong learning, there is still a significant gap between the rhetoric in the literature that describes the broad effects of these technologies on education (Guri-Rosenblit, 2005).

According to Guri-Rosenblit (2005), this has occurred at several institutions of higher learning due to exaggerated expectations and estimates made in this area in previous years. The early emphasis on e-learning infrastructure driven by technology rather than pedagogy of teaching and learning processes was another important issue that prevented the projected aims of integrating e-learning in higher education from being realized (HEFCE, 2005).

Theoretically, e-learning initiatives in higher education institutions have been driven by a variety of elements and techniques that decide whether they will be implemented successfully in every school or organization.

In order to support the development of an e-strategy model for adoption, integration, and successful implementation of e-learning in Nigerian higher education institutions with a focus on economic, administrative, pedagogical, and technological goals, this paper presents a critical review of various implementation strategies.

1.1. Motivation of study

Around the world, e-learning has fully taken off, and since the start of the new century, which coincided with the COVID-19 era, and eventually the lockdown, countries like Nigeria and UNIBEN in particular had to pause academic activities for a while, causing the schools to fall behind the regular academic calendar. Working class individuals will be encouraged to apply to and graduate from colleges across the nation with the correct deployment of e-learning, which allows students to attend their classes from anywhere in the world.

1.2. Aim

The aim of this research is to highlight the difficulties in implementing mainstream E-learning in Nigeria universities (using UNIBEN as my case study).

1.3. Objectives

- i. To highlight possible constraints affecting the implementation of mainstream E-learning
- ii. Carrying out a research on see how mainstream E-learning can be applied to University of Benin (UNIBEN), by gathering the opinions of stakeholders in the education sector students to be precise.
- iii. Comparing these results and arriving at a conclusion.

1.4. Scope of research

This research is strictly consigned with highlighting those constraints affecting the application of mainstream E-learning in Nigeria universities (using UNIBEN as a case study) and suggested solutions to that effect.

1.5. Research methodology

To examine each respondent's unique learning experience, two distinct research methods—a questionnaire and an interview—were used. For the purpose of gathering quantitative information on the actual interactions of e-learning implementation, the first study used a hard-copy survey instrument. The second was to conduct interviews with a sample group of University of Benin students to get qualitative information about their own e-learning experiences and their perceptions of the variables promoting or impeding e-learning. Only 10 of the University of Benin's participants in the study provided useful responses. 300 questionnaire responses were received, and 5 interviews with students at this institution were conducted for the study (University of Benin).

1.5.1 hardware tools

A computer system and its peripheral was the hardware tool used for this research. The properties of the system are as follows;

1. Manufacturer - Hewlett-Packard
2. Categories - Notebook 15 computer
3. Processor - Intel® Celeron® CPU N3060 @1.60GHz 1.60GHz
4. Installed Memory (RAM) - 4.00GB with a hard disk of 464GB
5. System Type - 64-bit Operating System, x64 based processor.

1.5.2. Software tools

These are the intangible tools that were used for annotating the dataset, training and testing the data extracted. They include;

- i. Operating system: A Windows 10 Enterprise was used and works well with the software developer tools that were used to carry out this project.
- ii. Microsoft Word was used to type this research.

1.5.3. Process

I started by familiarizing myself with the research question and reading other significant and pertinent research work. I learned that because they are the ones who would be most immediately impacted, I need the viewpoint of the children at my school. Then, in order to get a variety of viewpoints from which to draw my conclusions, I conducted interviews with a number of them and developed a questionnaire.

1.6. Significant of this topic

This was written and researched with the intention of highlighting the barriers that have forced e-learning into the background of the educational system in Nigerian universities (using the University of Benin as a case study), and I provide potential remedies to these barriers.

1.7. Project layout

Chapter One talked about the background information of this study. The motivation behind the study, its aim and objectives, what was done in the research and how it was carried out.

Chapter two talked about the topic by defining the term that we will be encountering throughout this book

Chapter three talked about the procedures and methods I used in gathering data for this research

Chapter four talked more this data analyzing them and creating diagram to show their percentage.

Chapter five concludes and end this piece of work and offer various recommendations that can bring solutions to the problem stated on this work.

CHAPTER TWO

LITERATURE REVIEW

Learning is "the process by which people gain new abilities or knowledge for the aim of better their performance," according to Rosenberg (2001). He explains that there is a noticeable change in how learning is seen in enterprises. First, training must show that it has a positive impact on outcomes or performance rather than only on the act of training. The introduction of information and communication technology, which makes way for the new idea known as e-learning, changes the learning environment as the world changes. E-learning is described by Rosenberg (2001) as a networked phenomena that allows for immediate changes and distribution. Additionally, it is transmitted by customary Internet technology. E-learning extends beyond instruction and training to include the dissemination of knowledge and resources to boost performance. E-learning has a number of advantages, including affordability, improved change-response, consistency, timely content, flexible accessibility, and consumer value. The discussion focuses on the necessity for businesses to create a strategic basis for e-learning, taking into account the new methods of e-learning and combining them with other organizational learning initiatives.

2.1. E-learning

E-learning is the combination of technology and specially designed learning material. Learning material must be according to the medium so special design is required. On the basis of the involvement of e-learning content, we can classify it into two major types:

- 1) Complete Online Learning
- 2) Blended Learning

Complete Online Learning: This form of education is totally dependent on online learning resources. The only platform used for the delivery of course materials, discussions, assignment evaluation, exams, and other evaluations is e-Media Communiqué. It gives students the most freedom possible with relation to studying location and time.

Blended Learning: In this category, e-learning technologies are employed as supplemental tools to improve the efficiency of traditional face-to-face approaches. These tools can also be employed to shorten face-to-face interactions. The majority of learning activities take place online learning platforms, with certain activities taking place in the classroom.

2.2. Advantage of e-learning

For the implementation of e-learning to be beneficial, its benefits must outweigh its drawbacks. The fact that e-learning is less expensive to supply is just one of its many benefits. E-learning allows for self-paced learning, consistent information delivery, is quicker, and works for students anywhere, at any time. Because the teaching materials are easily updated and allow for the inclusion of multimedia, such as audio, video, quizzes, and other types of interactivity, learning is reinforced. E-learning can help students retain more information, give them rapid feedback, and let them personalize the learning materials to suit their needs (Kirsh, 2002; Turk and Robertson, 2000). E-learning offers risk-free simulation environments for the development of important leadership and decision-making abilities.

2.3. Disadvantage of e-learning

The drawbacks include the potential for higher development costs and the need for new skills for content generation. The related technologies may be frightening, occasionally baffling, expensive, and aggravating. To keep up with an unrestricted and robust learning process, e-learning calls for increased responsibility and self-discipline on the part of the learner.

2.4. Understanding e-learning implementation

Internet technologies offer a wide range of development options, particularly for education, teaching, research, and learning, according to Manir (2007). Universities and other institutions in underdeveloped nations could be able to close the information and material access gap with the help of wireless Internet technologies. A good effect on education and the delivery of instruction would result from Nigerian universities being connected to the Internet. The Internet enhances and expedites knowledge flows, complements locally available material, and can be utilized to bring cutting-edge educational methods to remote locations. When considering the adoption of e-learning in a developing nation like Nigeria, a larger discussion comes to mind. ICTs, however,

can contribute to finding a solution. If entering the new global economic and educational growth requires education and capacity building, then e-learning should be viewed as a crucial aspect of fundamental development, an alternative method of capacity building, and a tool for empowering individuals. Gunawardana (2005) (2005) A necessary prerequisite for students to benefit from technology-based learning is computer literacy. E-learning can only advance a foundation of fundamental computer literacy abilities. For each program, learners should go through an introductory lesson that emphasizes professional growth in using technology in the classroom.

The best method to ensure that e-learning is a success is to keep things as straightforward as you can. This is valid from a pedagogical standpoint and is especially true in terms of technology. The target audience is made up of working people with little free time who are accustomed to learning online, which, like all distance learning, necessitates a lot of self-discipline and time-management abilities.

In addition, Gunawardana (2005) emphasizes that research on e-learning has demonstrated that most programs are more likely to succeed with the facilitator's ongoing involvement through email discussion lists and personalized messaging. The facilitator's ongoing involvement and comments are the learner's most effective supports. Unsupported web-based trainings make up the majority of online courses, while others offer a place for discussion. The best ways to develop educational environments are through extremely sophisticated courses that mix all aspects of online learning into a single design known as "blended learning."

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

The methodology that was employed in this investigation is described in this chapter. It contains. To examine each respondent's unique learning experience, one distinct research methods—a questionnaire was used.

For gathering quantitative information on the actual interactions of e-learning deployment, the initial study used a hard-copy survey instrument. Young adults, graduates, undergraduates, and postgraduate students at the University of Benin make up the study's population. The areas that were addressed included the basement, green park, bukas, and library extensions.

3.2. Participants:

Only those participants who responded to the questionnaire (n=300; 75% of the sample overall) made up the final sample, which is shown in table 1. Graduates, undergraduates, and postgraduate students from the University of Benin were included. Graduates made up 70 (23.33%), undergraduates made up 180 (60%) and postgraduates made up 50 (16.67%).

3.3. Measures:

The limitations preventing the deployment of mainstream e-learning in Nigerian universities were gathered utilizing a 4-item structured questionnaire (using Uniben as a case study) Participants were questioned about e-learning and asked if they had the chance to take any courses online. Additionally, they were given the option of either mixed learning or entirely online study. Participate when you are also asked to list any difficulties you have faced trying to study for an online course. Participants also offered ideas on how the University of Benin might use e-learning.

3.4. Study procedure

The lecture hall, bukas, basement, and the library extension of the University of Benin's main campus, which house substantial populations of the required number of undergraduates, graduates, and postgraduates, respectively, served as the study sites. Additionally, I hired a researcher to help me gather and analyze quantitative data.

3.5. Data analysis

To depict the entire experiment, the gathered data was entered into a table and applied to various charts.

CHAPTER FOUR
RESEARCH AND DISCUSSION

Research questions one: how many University of Benin (UNIBEN) students are computer literates?

This result showed that 80% are computer literates and have basic knowledge in computer and 20% are not.

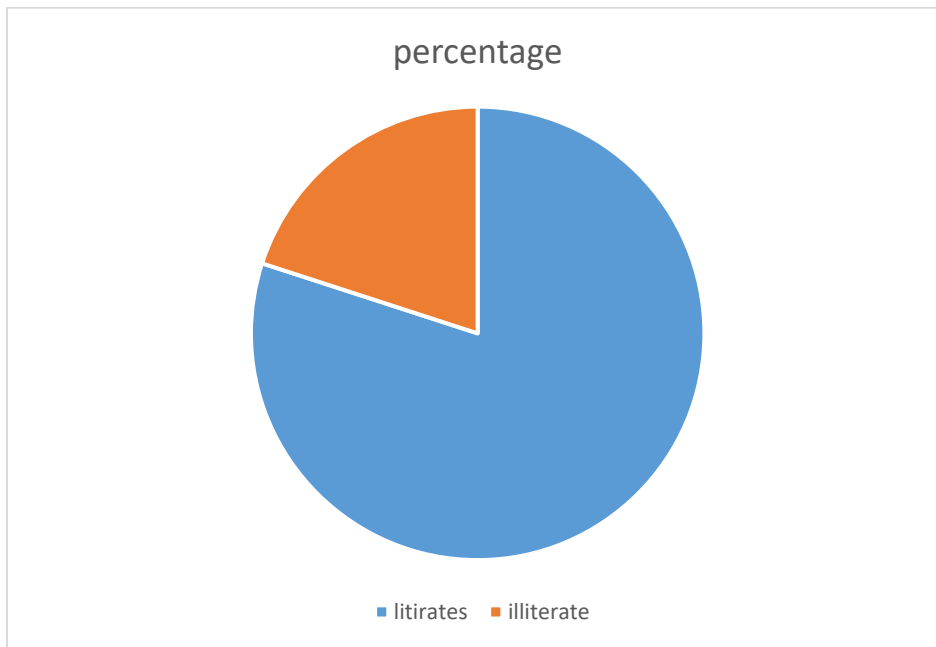


Figure 1: Pie chart to show percentage of student that are computer literate

Research question two: How was the entire learning process?

This result showed that 40% of them found it easy and 60% found it difficult.

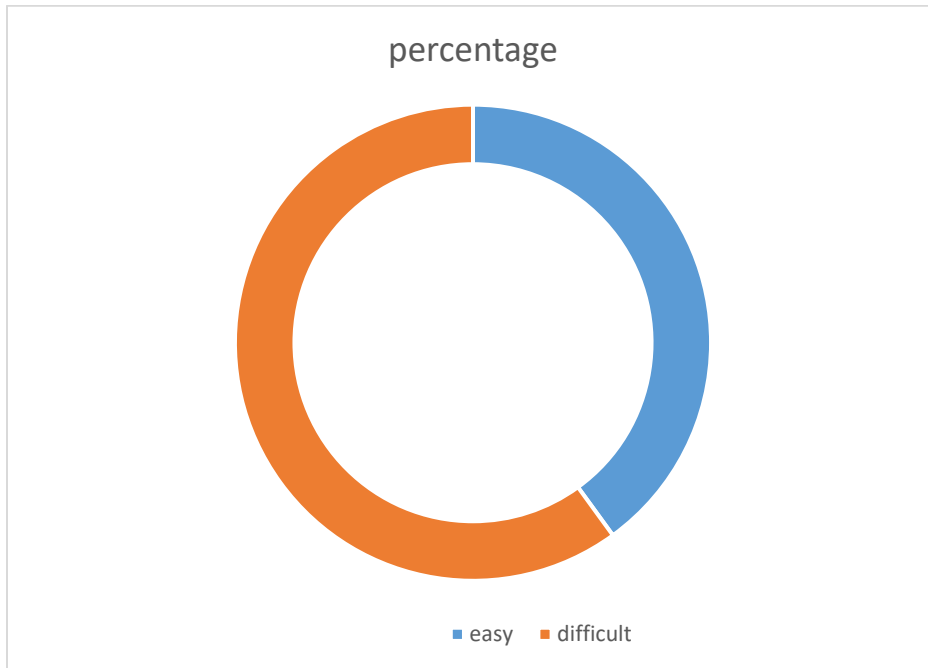


Figure 2: Doughnut chart to show percentage of how was the entire e-learning process

Research question three: How was the turn out of Post-Covid online classes?

30% did not turn out and 70% turned out well.

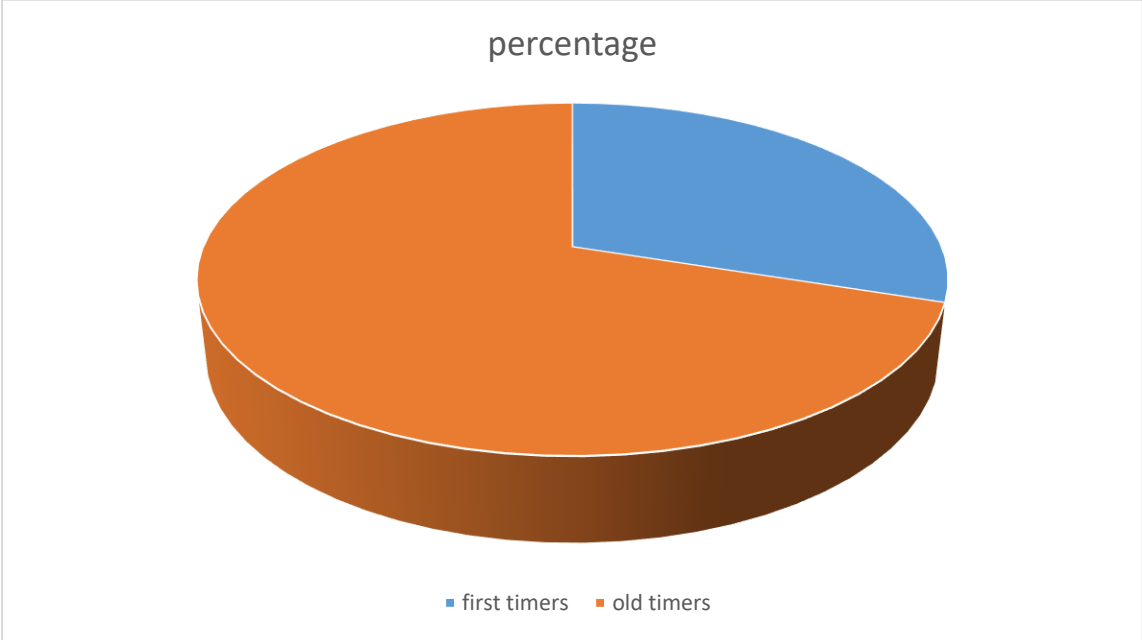


Figure 3: 3D chart to show percentage of turn out post-covid online classes

Research question four: what are those constraints and difficulties students experienced?

Numerous complaints are made about poor networks, computer illiteracy, power outages, maintenance costs, lack of self-discipline, and improper time management the raw data is being displayed on the table below.

Table 4: Table showing constraints and difficulties students experience.

participant	poor networks	computer illiteracy	power outages	maintenance costs	lack of self-discipline	improper time management
Post graduates	10 persons	4 persons	6 persons	5 persons	10 persons	15 persons
Graduates	5 persons	10 persons	10 persons	15 persons	20 persons	10 persons
Undergraduates	50 persons	40 persons	10 persons	30 persons	25 persons	25 persons

4.1. Discussion of my findings

The study's findings show that the scarcity of qualified ICT professionals in Nigeria has frequently been the subject of ICT studies and reports. Nigeria only generates a tiny number of high-quality ICT-trained university graduates each year. The state-funded universities have a highly

constrained number of open positions. However, there is a wide range in the standard of instruction. Nigerian universities are severely lacking in experienced ICT workers who could support the introduction of actual e-learning. The majority of faculty and students are unable to use the e-learning platform effectively.

Since their libraries cannot afford to give them access to sufficient and up-to-date materials, the majority of university staff and students only use Internet-related e-learning sites for the purpose of finding related information for their researches, not for the purpose of engaging in actual online learning, according to the study. The need for all university personnel and students to have some basic computer literacy will grow as ICT becomes more pervasive in daily life. When these abilities are taken for granted and the technology appears to have faded into the background, a technological revolution is complete. It is simple to assert that their use in Nigerian institutions will be beneficial.

4.2. Limitations and suggestions

The study's results also revealed that problems including erratic phone and Internet connections, poor website loading times caused by constrained bandwidth, and a dearth of computers with Internet access among the most frequently encountered problems. In order to enhance Nigeria's participation in the implementation of e-learning, it is crucial that technology requirements be maintained to a minimum. All course materials must be simple to obtain. It is just unreasonable to expect consumers in underdeveloped nations to download or print content from a website given the technological limitations they confront. The majority of e-learning program users don't have their own computers and only have access to the Internet through university internet cafes. Due to the persistence of the aforementioned issue, I advise that before e-learning becomes widely used in Nigerian colleges, all necessary infrastructure be made available (uniben as a case study).

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusion

E-learning must also rely on the presence of infrastructure and some level of connectivity for it to be successful in Nigeria. Another type of "digital divide" on a worldwide scale is being caused by a widening gap in market liberalization of the availability of Internet connection. Many nations have had or are implementing telecommunications laws that impede the growth of Internet access services, by way of competition. In addition, there are still certain technical obstacles to be addressed. Therefore, it is crucial to provide self-sustaining computer and Internet training, which will eventually allow universities to keep up with industrialized nations and give them access to academic and technological material, as well as Internet training at various levels. Thus, the advantages they receive will have an impact on every facet of their personal and professional lives.

5.2. Recommendations

Mainstream e-learning would have really helped a country like Nigeria where its higher institutions were lockdown for more than 5 months leaving us behind our counterparts who studied abroad. This is because the Post-Covid era resulted in the lockdown where numerous businesses, churches, schools, etc. were all shut down. I shall suggest that the NUC and other education sector stakeholders seek to mainstream e-learning in our Nigerian universities.

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