



## RESEARCH ARTICLE



## EVALUATION OF E-LEARNING TOOLS AND TECHNIQUES AT ENGLISH DEPARTMENTS: CASE OF BENINESE NATIONAL UNIVERSITIES

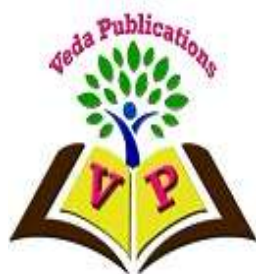
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[doi.org/10.33329.joell.8.3.21.98](https://doi.org/10.33329.joell.8.3.21.98)

### ABSTRACT



With the outbreak of the Covid 19, a great number of universities in both developed and developing countries around the world have resorted to electronic management systems to maintain their teaching and learning programs. The universities of the republic of Benin are no exception. Despite the important investments by the Beninese government and the potential of learning management systems to support both blended learning and learning that is entirely delivered online, the majority of LMS-supported e-learning initiatives do not fulfill their objectives; they fail, either totally or partially. To investigate the underlying causes of failure, this study was conducted through interviews with 6 lecturers and 3 key e-learning personalities involved in e-learning initiatives in 3 English departments of 3 national universities in the republic of Benin (Abomey Calavi, Adjarra and Parakou). Moreover, a structured questionnaire has been designed and sent to 12 students' prefects. The analysis of the data collected revealed that some of the most probable causes of this failure were: insufficiency of financial investments, lack of preparation, high ICT illiteracy rates among the student community; low comfort levels with technology; usability issues of learning management systems; poor marketing strategies; ineffective maintenance strategies and insufficient user/technical support. In order to make e-learning management systems yield its expected results, EFL students, teachers and universities authorities must be informed about these causes of failure and further research towards more successful deployment of learning management systems in Beninese universities must be made.

**Keywords:** *Learning Management Systems, E-learning, Evaluation.*



## 1. INTRODUCTION

### 1.1 Problem Statement

E-learning has been defined as the learning supported or enhanced through the application of Information and Communication Technologies (ICTs). It covers a spectrum of activities from supported learning to blended learning and to learning that is delivered entirely online. Blended learning, where e-learning activities and traditional instructor-led learning activities are coupled to facilitate full-time learning for the students is the model of choice for many institutions both in the developed and developing countries.

Due to the outbreak of Covid 19 during the first semester of the academic year 2020-2021, national universities in the republic of Benin have decided to move towards e-learning to ensure and maintain their academic programs. This governmental initiative can be justified by the numerous benefits associated with it in a context where presential courses are prohibited and barriers measures are imposed (Anta, 2002, p.45). These benefits include continuity of academic programs despite the social measures, significant reduction of spread of the virus, the increased efficiency and cost reduction, transparency, scalability, flexibility, accessibility consistency and improved student performance (Sigh,2018,p.36). However, while the majority of these benefits are enjoyed by institutions in the developed countries, e-learning initiatives in developing countries have not been effective. In 2020, EFL students faced serious difficulties which prevented them from having a constant access to courses despite the availability of internet connection

and courses on line (Iwikotan, 2020, p.65). As a result, EFL students' performance have worsened during final examinations.

The present study investigates the causes of the failure related to the implementation of E-learning in Beninese universities so as to propose some practical solutions likely to help both EFL students and teachers fully benefit by the potentials of this teaching and learning method.

### 1.2 Purpose of the Study

The present study aims at examining the causes of the failure of the Learning Management System (LMS)-supported e-learning initiatives of the government in the Beninese national universities after the outbreak of Covid 19 in 2020. It also investigates the probable solutions that can help EFL students and their teachers to take a full advantage of the potentials of this teaching and learning method.

### 1.3 Research Questions

This study attempts to answer two (2) research questions

1-Why LMS-supported e-learning initiative of Beninese government does not fulfill its potentials?

2-How can EFL students and teachers benefit by the potentials of an e-learning initiative?

### 1.4 Significance of the Study

The significance of this study is that it will improve the achievement of teaching and learning objectives related to the governmental LMS-supported e-learning initiative in the state-owned universities. It



also seeks to raise EFL students and teachers' motivation and interests in the efficient use of Learning Management System-supported e-learning programs currently implemented in Beninese universities.

### 1.5 Scope of the Study

This study is strictly limited to the governmental LMS-supported e-learning initiative in the state-owned universities. The other LMS-supported e-learning initiatives implemented in some private universities are out of the scope of this research. This study is only concerned with the EFL students (First, second and third years) of the Beninese English departments. The students of the other departments are not taken into account in the investigation.

## 2-LITERATURE REVIEW

This literature examines the differences between the concepts of e-learning and the digital divide. In addition, it tries to analyse the major criteria for choosing a Learning Management System for e-learning implementation in academic institutions. The origins of the difficulties preventing an efficient implementation of Learning Management Systems have also been highlighted to better understand the issue and help both EFL teachers and learners take a full advantage of LMS based on e-learning.

### 2.1 E-learning and the Digital Divide

According to Khan (2010,p.42), developing countries are a long way behind developed countries in e-service implementation, and the gap is widening over time. The ever-widening gap can be attributed to several challenges that span from human resources to technical issues.

Developing countries are defined as countries operating within ICT resource-constrained conditions and where the populations barely have basic knowledge in using ICT solutions. When compared to the developed countries, the situation is described as the digital divide Khan (2010, p.28)

Specifically, as applied to e-learning, digital divide refers to the disparity in availability, skill readiness and ability to access computers and the Internet together with the ability to effectively use this technology to enable full training and learning (Gibson and Oberg;2004). In actual fact, the implementation of e-learning-based management systems in the republic of Benin is still in its infancy. So the growth of e-learning now underway will gain further significance when considering the role and outputs of the various standardization groups at stake. That is the reason why objective criteria are to be taken into account in the process of selecting LMS for E-learning Implementation.

**Table1:** Stages of e-learning implementation and the challenges anticipated at each stage

Stage of e-Learning		Who is Involved?	Nature of Challenges Anticipated
According to Khan (2004)	According to Saeedikiya et al. (2010)		
Planning	-Diagnosis  -Decision -making	-Institutional  -Managers,  -Business  -Managers,  -E-Learning Experts	-Evaluating existing e-learning initiatives and determining critical success factors.  - Defining pedagogical and financial plans.  - Identifying the right people, processes and products of the subsequent stages.  -Estimating the durations and precedence of tasks.
Design		E-Learning Experts,  Technocrats/Technicians, Subject Matter Experts, Instructional Designers	-- Defining students' needs and institutional capabilities.  -Selecting appropriate delivery medium.  -Reviewing course content for pedagogical soundness.
Development and Evaluation	Development	Technocrats/Technicians, Teachers / Subject Matter Experts, Students, Evaluation Expert	Managing timelines and communication breakdowns.  -Taking care of continually



			emerging issues demanding new changes. - Managing Pilot. o Conducting formative evaluation. - Procedure for summative evaluation
Delivery	Delivery	Teachers, Students, Technicians	-Maintaining access control and information confidentiality. -Monitoring and updating of the e-learning environment. -Providing the required technical support to users.
Maintenance	Post delivery	Technocrats/Technicians, Teachers	

## 2.2 Criteria for Choosing an LMS for E-learning Implementation

Today, an important number of LMS has been developed around the world. Universities select LMS according to some reasons ranging from teaching objectives to financial means.

A number of LMSs have been developed, including but not limited to: some popular commercial systems ( Leeming, Pitia, and Hacchey; 2005,p.18) such as Blackboard and WebCT and open source LMSs (Aberdour; 2007,p.23) such as Moodle, Atutor, Ilias, Sakai and Kewl. The open source LMSs have received significant attention, especially from institutions in developing countries because, to them,

the ability to acquire educational software without paying license fees is an important advantage (Cavus, Uzunboylu, and Ibrahim ;2007,p.55). The large number of available LMSs on the market today presents yet another daunting task to the academic institutions – making a choice that will satisfy most, or all, of their requirements (Cavus, Uzunboylu, and Ibrahim ;2007,p.27). However, selecting any tool or delivery medium for e-learning must fit well within a structured e-learning implementation plan of the institution, as well as the e-learning implementation stages (Khan, 2004,p.31). In the implementation of e-learning in traditional universities, (Saeedikiya, 2010,p.35) proposes six main stages named as: diagnosis, decision making, design, development,

delivery and post delivery, and three phases (preparation, operation and post operation) in the implementation of e-learning in traditional universities. Khan (2004,p.15) also suggests six stages, named as: planning, design, development, evaluation, delivery and maintenance, and two phases (content development and content delivery and maintenance). Although the stages are named

differently by the different scholars, there seems to be agreement on the activities that happen at each of the six stages. Specific challenges are encountered at each of these stages. Table 1 summarizes the literature about the nature of challenges anticipated at each of these stages of e-learning implementation, and Figure 1 shows the sequencing of the stages.

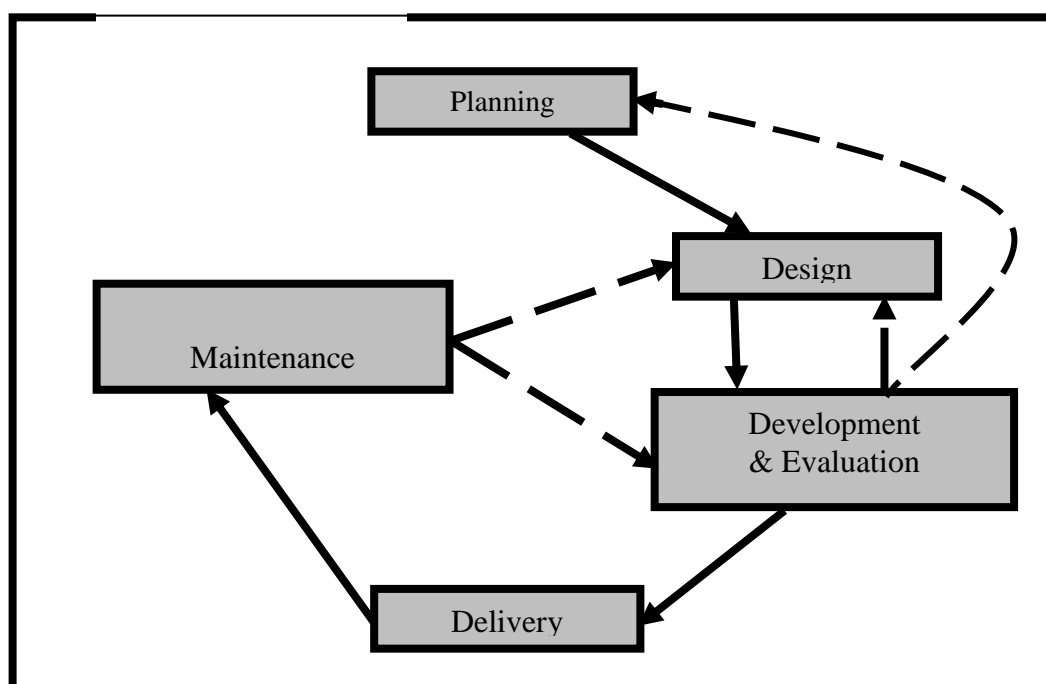


Figure 1: Sequencing of the stages of e-learning implementation

At the delivery stage of e-learning, five stages of online interaction between the students and the teacher are identified: access and motivation, online socialization, information exchange, knowledge construction and development (Carr, Shaheeda, and Smuts; 2009,p.63). For these researchers, the use of e-learning by both students and teachers result in a variety of interactions between the users and others teaching and learning

parameters. That is the reason why, before designing and implementing any e-learning, the strategies to facilitate an easy access to the system, the techniques to motivate the users, the on line socialization issues, the procedures of information exchange and those related knowledge construction and development must be anticipated.



According to Salmon (2009,p.55), “each stage requires different types of support from teacher, without which learning may fail to take place”. In addition to the anticipated challenges at each e-learning implementation stage illustrated in **Table 1**, literature further indicates some of the most common pitfalls that academic institutions have to avoid when implementing e-learning initiatives. These include: believing e-learning is a cheaper training alternative; overestimating results; overlooking the shortcomings of self-study; failing to go beyond courses; viewing content as commodity; ignoring technology; failing to involve information technology staff; over-relying on technology; assuming learning transfers; and believing that if you build it, they will come (Weaver, 2002,p.69).

According to Weather, an efficient implementation of e-learning-based managing system emerges from positive perceptions of both designers and users whose strengths, weaknesses and economic situations need to be examined and adapted to each step and phase of the e-learning management system project. Failing to achieve this will result to some gaps. In this perspective, understanding the origins and causes of the success and failure of LMS based on e-learning will facilitate its sound implementation.

### 2.3 The Gaps and their Origin

The nature of challenges anticipated at each level of e-learning implementation illustrated in Table 1 above shows that the challenge of choosing an appropriate delivery medium (which in this case is the LMS) occurs at the design stage. This therefore means that investigating the success or failure of the

LMS has to start at the design stage. Additionally, Table 1 demonstrates that choosing the delivery medium is the responsibility of the E-Learning Experts and Technocrats/Technicians. The involvement of the Subject Matter Experts and Instructional Designers at the design stage is to take care of defining students’ needs and reviewing course content for pedagogical soundness. Furthermore, the involvement of the E-Learning Experts and Technocrats/Technicians at the planning stage through the design, development, evaluation, delivery and maintenance stages suggests that they are best positioned to know about the success and failure factors of the deployment of e-learning management systems in their institutions. These people, who may be referred to differently in different institutions, are referred to as key e-learning personalities.

## 3. METHODOLOGY OF THE STUDY

### 3.1. Research Design

This work used qualitative research methods. To identify the underlying causes of failure, a survey was conducted through interviews with key e-learning personalities directly involved in e-learning initiatives in 3 English departments in Beninese national universities

### 3.2. Research Setting

The present study took place in October 2020, a few months after the outbreak of Covid19. EFL Students and lecturers we interviewed were enrolled in an academic initiative based on electronic teaching and learning program which started in march 2020 and ended in July 2020. In addition, the EFL students and



lecturers investigated in this research are from diverse economic, social and marital backgrounds, which can influence in one or the other their interests in electronic teaching and learning.

### **3.3 Research Population**

The present study examines the causes of failure of the Learning Management System (LMS)-supported e-learning initiatives of the government at Beninese national universities after the outbreak of Covid 19 during the academic year 2019- 2020.. The research population of this study is made up of all the EFL lecturers and students at the Beninese national universities as well as the e-learning experts involved in this program during this academic year .

### **3.4 Sampling**

This study samples six (06) EFL lecturers, twelve (12) EFL students and 3 e-learning experts from three (03) Beninese national universities. The respondents are selected according to their level of implication in the e-learning program.

### **3.5 Data Collection Procedures**

According to Burns (1999:71) *"there are three principles in the ethical conduct of Action Research: Negotiation, responsibility and confidentiality"*. Therefore before collecting data, we identified contact persons at each English department who helped us to obtain a permission from the English department'authorities and to conduct the interviews.The contact persons were mainly researchers and graduate students of the English departments involved in the study.In this vein, first of all, we explained research objectives to the respondents. Second, we assured them that their names or identities would not be disclosed and the

data would be used only for the present research purposes. Third, appointments were arranged between the respondents and the researchers for the interview. During the interview, barriers measures were observed.

### **3.6 Description of Data Collection Instruments**

The interviews sought both facts and opinions from the respondents regarding the choice, deployment, maintenance and user support of the Learning Management Systems in their universities. The interviews further probed for the respondents' views on the level of success/failure of the LMS-supported e-learning initiatives and the perceptions (extent of use) of the different categories of users.

### **3.7 Methods of Data Analysis**

The interviews were tape-recorded and thereafter the data was transcribed and analyzed—these facts and opinions are combined with evidence from literature to answer the research questions. Documents, including Web pages, for the sampled universities were also identified and analyzed.

## **4. PRESENTATION AND DISCUSSION OF THE FINDINGS**

### **4.1. Presentation of the Findings**

This presentation of the findings starts with a field assessment related to the actual implementation of Learning Management Systems in the Participating Universities. In addition, it identifies and analyses the major barriers to Learner Management System implementation in those universities as indicated by the respondents.





#### 4.1.1. Implementation of Learning Management Systems in the Participating Universities.

Three (03) national universities in the republic of Benin are involved in this study: Abomey Calavi University, University of Adjara and University of Parakou

##### 4.1.1.1 Abomey Calavi University

The university of Abomey Calavi is located in the city of Abomey Calavi (south Benin). Despite its close geographical position to the economic capital city (Cotonou), it is facing serious infrastructure difficulties. Moreover, the internet connection is still restricted within this campus.

According to the e-learning manager (respondent1), At Abomey Calavi University, the first LMS-supported e-learning initiative in the history of that university took place in April 2020. It mainly aims at offering students downloadable courses on -line after the outbreak of Covid 19. This pedagogical approach yielded minimal success. It did not meet much success beyond having some staff trained to create and upload e-learning content on to the LMS. However, according to respondent1, the LMS is yet to be utilized to its potential. As Abomey -Calavi University is the leading university in the republic of Benin, it is likely that similar trends in e-learning or even worse are experienced in the other universities in the country, and most probably across the region. According to the e-learning manager in that university *"currently, there are more than 15 % lecturers in the university using the platform"*.

The university of Abomey Calavi has deployed Moodle Learning Management Systems. According to the respondent2 from the University of

Abomey Calavi, the turnover of LMSs at the university has been as a result of usability issues of the LMSs: "Although the turnover has had data migration difficulties and created frustrations among the user communities, it was necessary as we had to continue seeking for an LMS that would satisfy most of our requirements"

##### 4.1.1.2 University of Adjara

Located at the south west Benin, a few miles away from the border between Benin Republic and the Federal Republic of Nigeria, the University of Adjara is a newly created university to reduce the ever-increasing number of young students in the university of Abomey Calavi.

The University of Adjara, according to the e-learning team leader (respondent3), has never implemented Learning Management Systems in the last ten(10) years. The current program is adopted and implemented through collaboration with development partners. Currently, the university is using Moodle LMS. However, according to the expert respondent, the Moodle LMSs have not been utilized to their potential, and the success of LMS supported e-learning at the university is described as minimal: *"currently, there are less than 20% of the EFL lecturers in this university using the platform"*.

##### 4.1.1.3 University of Parakou

As a newly created national university, the university of Parakou is a result of the recent reforms undertaken by the Beninese government to receive students from the northern part of the country. It currently offers training in a variety of specialities including medical sciences, languages, humanities, computer sciences.



The University of Parakou, according to the e-learning coordinator in this university, has also implemented a Moodle learning management systems . The university hoped to de-congest classrooms, conduct distance learning and reduce training costs by re-using training materials provided on Moodle. However, this objective has not been achieved: *“the system is only used by a very few lecturers and students, mainly from the law and business administration departments ”*. The e-learning coordinator in the university of Parakou said that less than 10% of the EFL lecturers and their students are using the platforms. The fact that both students are not enough trained to use efficiently computer and the platform applications before the implementation of the program can justify EFL their reticence. Moreover, *“the implementation of the initiative has not been supported by a prior investigation which takes into account the real needs, the social and the cultural realities of the individual users”* declared one of the respondent lecturers in the university of Parakou.

At this university, according to the e-learning coordinator, Share-point10, a Microsoft content and document management system was used to make courses available for sharing and collaboration in a blended environment. However, the platform was found to be less flexible, and had limited interactivity options. Share-point is now being replaced by Moodle, which was first implemented by individual lecturers in the Faculty of Medical Sciences. According to the expert, *“through organic growth, Moodle has now come to be accepted by the university community as the LMS of choice for the university, though may not be the ultimate answer”*.

## 4.2 The Identified Barriers to Learner Management System Implementation

The analysis of the data collected during the interview helps to find out five important obstacles to an effective implementation of LMS in Beninese national universities.

### 4.2.1 Internet Accessibility and Knowledge gap Between LMS Stakeholders

Poor access to the Internet was acknowledged by all the respondents. In addition, a knowledge gap between the three e-learning stakeholders (students, teachers and the managers/institution) was also noted. It was discovered through this study that during the deployment of LMSs in these universities, the teachers and managers usually received user training, while the students (demand/consumption side) were often left out as far as user training is concerned. All the participants in the three (3) universities involved in this study mentioned this concern. This has also been evidenced in literature. For example, in their e-learning guide, “Facilitating Online”, Carr et al. (2009,p.75) developed an online facilitation course, as an Open Educational Resource for training educators and online community facilitators but the students were not given due attention. Generally, as new e-learning technologies are adopted, attention has mostly been focused on the supply side (teachers and institutions) with less attention to the consumption (students) side. Yet, as also noted by Khan et al. (2010,p.68), for any society at the nascent stage of ICT application, it is crucial to identify and provide skills needed from the users’ (demand/consumption) side. Hameed et al. (2009,p.74) also asserted that it is important for the



teachers and the institution to address any issues to satisfy the third group of stakeholders (students) before deploying any virtual learning environment: *"No matter how good the e-learning environment is and what best technology is used to create it, if students are not satisfied then it is of little use"*. Also according to Shahid (2005,p.36), a responsive student community is crucial if e-learning is to succeed.

#### 4.2.2 High ICT-illiteracy Rates and Low Comfort levels Using ICT-Solutions

All the six (12) participating student respondents and the six(6) lecturers recognised that the large majority of the students in the Beninese national universities have not been exposed to many ICT alternatives. As a result, their confidence and comfort levels while using such ICT solutions are always low. This observation is in agreement with Tijdens (2005,p.31)'s assertion that there is a strong correlation between adaptability to new ICT solutions and intensity of ICT use . The high ICT-illiteracy rates and the low comfort levels with technological solutions have led to slow acceptance and use of LMSs by the student communities in Beninese national universities.

#### 4.2.3 Learning Management System Selection and Usability Issues

According to five (05) out of the six lecturer respondents, while the selection criteria of the LMSs in their universities has always been a subject of many factors, usability of the LMSs has hardly been one of the factors. Below are some of the direct assertions from these respondents: *"We took on our previous LMS because it was open source so were not required to pay license fees, and yet again we were*

*promised technical support from the proprietors"* *"Taking on this LMS was a decision agreed upon between our development partners and university management"* The respondents further revealed that in some cases the usability assessment of LMSs was not done due to the unclear and/or costly criteria of performing the evaluation. The universities that were restricted by such constraints evaluated the LMSs by modeling themselves on to other universities (mostly in the developed countries) where such LMSs had been deployed successfully, although it was highly likely that the operating conditions in such universities were not closely comparable. Yet, according to Ardito (2005,p.29), usability evaluation, by definition, emphasizes the use of a product by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use .In this trend of idea, one of the respondents emphasised : *"We did not have resources at the time to evaluate the LMS for usability, more so we were convinced it would work for us because it had been proven successful at the Proprietary University"* . As described by Ludivine et al.(2009,p.39)] and Minović et al.(2008,p.73), if LMS usability problems are not identified and properly addressed, they cause disappointments and frustrations during learning, leading to poor perceptions towards the LMS among the student communities. Eventually the students may stop using the system, especially if there are alternative ways to learn, such as the face-to-face sessions. This was the case with all the Learning Managements in all the universities surveyed.



#### 4.2.4 Ineffective Maintenance and Inefficient User Support Strategies

As described in the stages of e-learning implementation in Figure 1 above, maintenance starts at the delivery stage, through until the e-learning initiative is retired. For the LMS-supported e-learning initiatives, maintenance and user support are very crucial as it is the mechanism through which inefficiencies and other usability problems of the LMS can be identified and addressed. Unfortunately however, all the universities surveyed did not have proper maintenance strategies. This situation resulted into deterioration of the LMS services. One(01) of the three (03) universities investigated did not even have a technical unit to offer support to the users, while those that had them, were reported as either understaffed or/and insufficiently trained to be able to deal with the task at the level required. One responded was quoted: *"...Initially, the department of computer science helped in the installation of the LMS server, but the day-to-day technical support and maintenance are not binding on to them, so the technical support is mainly through „peer-to-peer help"*.

#### 4.2.5 High Expectations and Poor Marketing Strategies

This study revealed that the goals set by most universities surveyed in the republic of Benin for developing the e-learning initiatives are usually ambiguous and to some extent very ambitious. It was therefore always difficult to monitor the progress and measure the impact of the initiatives so that timely interventions could be instigated where necessary. In addition, it was also noted that LMS-

supported e-learning initiatives that started from the top to bottom met more resistance than those where the initiatives started small in a department and through organic growth spread to other departments.

#### 4.3 Recommendations

Universities where the deployment of the learning management systems took a bottom-up approach seemed to have a relatively more successful and effective implementation. This was presumably because the goals of the smaller units (say department or faculty) were less ambiguous, thus monitoring and evaluation were relatively easy. In this case, success is defined by the level of effectiveness, efficiency and user satisfaction with which the system meets the goals for which it was deployed. This requires that standard usability evaluation techniques are deployed to measure the attributes of usability: effectiveness, efficiency, learnability and user satisfaction. Once these are satisfactory, then the initiative would then be rolled out to a bigger scale or allowed through organic growth. Beyond the method of LMS deployment, universities that had functional user-support units were in a better position to handle some of the usability issues and other technical problems reported by the users, thereby encouraging and retaining the users on the system. Universities that took on LMS-supported e-learning initiatives as funded projects faced sustainability problems after the development partners pulled-out. In many cases, the initiatives could not survive beyond the donors. It is also important to note that although most universities took on LMS-supported e-learning initiatives with the hope of reducing training costs,



this could not be realized in the short run because the initial costs of setting up the initiatives were often so high. These costs often grew out of the need for infrastructure, installation, bandwidth and systems integration, as well as the need for marketing to ensure that intended learners are using the system. In most cases some of these were overlooked. In such instances, the initiatives stalled at some point, while others totally failed to progress.

This study demonstrates that it is possible to adapt a Learning Management System to provide a road map to aid individual or institutional efforts aimed at improving organisational processes associated with e-learning. The real question is whether this is a useful process. We would suggest that while designing such program, investigations must be conducted to examine the real needs, social, cultural and pedagogic realities of the prospective user communities. Models are incomplete they already offer some key benefits. We strongly believe that almost all the e-learning programs although incomplete offer some key benefits. These models provide a useful framework for encouraging improvements in e-learning. In the process of designing, developing and implementing some teaching activities in the context of e-learning, the initiators are highly recommended to:

- to frame the development of an e-learning training program for staff; as a roadmap for staff looking
- to adopt or improve their use of e-learning; as a means of getting members of a school to agree on the directions for adopting e-learning; as a framework for the consideration of University

infrastructure projects; and as a means of encouraging institutional support for e-learning.

## 5. CONCLUSION

Although the adoption of e-learning is widespread among educational institutions, ensuring that it is both effective in delivering educational value and efficient in its use of organisational resources remains a difficult task. As many authors have argued, these difficulties arise because the creation, utilisation and support of e-learning facilities requires a balancing of tensions between technical, organisational and pedagogical considerations.

The success in the implementation of a Learning Management System depends on the deployment of a variety of teaching and learning strategies adapted to the teachers and learners actual situations. In the same vein, the failure of LMS-supported e-learning initiatives in the Beninese national universities is mainly attributed to the technology (whether open source or proprietary) and the institutions that are using the LMSs to foster, support and facilitate authentic student learning. In this regard, the high turn-over of LMSs in institutions that are searching for the most appropriate system may not be justifiable. Rather, the institution may divert resources and energy into managing transitions. However, given that a stable learning management system can be a prerequisite for making advances in learning, adverse usability problems may lead to negative results. In all the national universities surveyed, LMS-supported e-learning initiatives aimed at maintaining the teaching and learning program during covid 19. It has also been developed to improve the quality of teaching



and learning . In most cases, this has not been achieved. The solutions have not satisfied the community for which they were created, which has resulted into high abandon rates. The factors discussed above have been identified by key e-learning personalities in the five surveyed national universities as the barriers to the successful deployment of LMS-supported e-learning initiatives in the context of the Beninese national universities. If LMSs are to fulfill their potential in the developing world, then future research and development efforts should be aimed at overcoming these barriers.

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