

# Analysis and Evaluation of E-Learning at the Faculty of Computer Engineering Cokroaminoto Palopo University

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***Abstract— The purpose of this research is to analyze the e-learning that use at the Faculty of Computer Engineering at the Cokroaminoto Palopo University to identify the component features and menus that exist in the e-learning that was not in accordance with the needs of user. Based on the preliminary results of a study that has been done. E-learning has been used in the academic process in that faculty. However, there are still some functional requirement that it does not exist in the e-learning while the functional of this requirement exist in development plan document the e-learning. Based on the issue, needs to be analyzed and evaluation of e-learning faculty in Computer Engineering Faculty so that it can be the development of e-learning in accordance with the analysis of requirement and development based demand needs that arise along with the technology development and learning method. The research method was used descriptive research namely explore the feature and menu that is exist on e-learning by the login the account of each users namely students, lecturers and administrators. Based on the results of the research and discussion, it can be concluded that e-learning that used in the Faculty of Computer Engineering in general had been meet with the needs of lecturers and students in the learning and teaching process such as for the assignment of coursework to students and examinations. However, there are features of the moddle that had not been meet utilized and that features is very much needed in the learning process***

***Keywords : e-learning, analysis, user requirement***

## I. INTRODUCTION

The development of information technology and computer is very fast has positive impact in society. Technological developments produce so many community service which implements the ICT (Information and Communication Technology). In the business world we often hear the term e-business or e-commerce, the Government called by the term e-government and in the education is known by the term e-learning.

E-learning brings the effect of conventional educational transformation process into digital form, either in contents and system. The implementation of e-learning specifically in educational institutions (schools, training and universities). Some of the College organize the electronic learning activities as a supplement (extra) toward the subject matter presented by regular in class (Wildavsky, 2001; Lewis, 2002). However, the e-learning some other College organize as an alternative for students because of one and the other reason they are unable to follow the class by face to face. In this case, e-learning as the option for students.

One of the college institutions that also implement E-Learning is the Faculty of Computer Engineering at the University Cokroaminoto Palopo. Based on the preliminary results of a study that has been done. E-learning has been used in the academic process in that faculty. However, there are still some functional requirement that it does not exist in the e-learning while the functional of this requirement exist in development plan document the e-learning. Based on the issue, needs to be analysed and evaluation of e-learning faculty in Computer Engineering Faculty so that it can be the development of e-learning in accordance with the analysis of requirerent and development based demand needs that arise along with the technology development and learning method.

## II. RESEARCH OBJECTIVES

The purpose of this research is to analyze the e-learning that use at the Faculty of Computer Engineering at the University Cokroaminoto Palopo to identify the component features and menus that exist in the e-learning that was not in accordance with the needs of user.

## III. REVIEW OF THE LITERATURE

### E-Learning Concepts

E-learning can best be defined as the science of learning without using paper printed instructional material. E-learning is the use of telecommunication technology to deliver information for education and training. With the progress of information and communication technology development, E-learning was emerging as the paradigm of modern education.

The great advantages of E-learning include liberating interactions between learners and instructors, from limitations of time and space through the asynchronous and synchronous learning network model (Pei-Chen Sun et al.,2008). E-learning is commonly referred to the intentional use of networked information and communications technology in teaching and learning. A number of other terms are also used to describe this mode of teaching and learning. They include online learning, virtual learning, distributed learning, network and web-based learning. The term E-learning comprises alot more than online learning, as the letter “e” in E-learning stands for the word “electronic”, E-learning would incorporate all educational activities that were carried out by individuals or groups working online or offline (Som Naidu, 2006)

**Characteristics of E-Learning**

Today, E-learning is still in an early stage with many uncertain issues to be clarified and investigated. There are many factors that potential influence the E-learning effectiveness, such as media characteristics, learning context, technology, and learner characteristics. While our experiments have demonstrated that E-learning can be at least as effective as conventional classroom learning under certain situations, we were not in a position to claim that E-learning can replace traditional classroom learning. Learning is mostly a socio-cognitive activity. Not every student will find E-learning suitable for his or her learning style. Some students feel bored or intimidated in front of computer. Other important issues in E-learning must also be taken into consideration. Issues of trust, authorization, confidentiality, and individual responsibility mustbe resolved. Owners of intellectual property shouldbe properly compensated. Security on the Internet was growing challenge, primarily due to the open access by the public to this universal network. In addition, since multimedia materials were heavily used in E-learning systems, a high-bandwidth network is a basic requirement for efficient content access. Nevertheless, E-learning is a promising alternativeto traditional classroom learning, which is especially beneficial to remote and lifelong learning and training. In many cases, E-learning can significantly complement classroom learning. E-learning will keepgrowing as an indispensable part of academic and professional education. Efforts should continue toexplore how to create more appealing and effective online learning environments. One way to achieve this is to integrate appropriate pedagogical methods,to enhance system interactivity and personalization, and to better engage learners. (Zhang et al., 2004).

**IV. RESULT AND DISCUSSION**

*A. An overview of E-learning at Faculty Computer Engineering*

E-learning used at the Faculty of Computer Engineering, namely the Moodle based e-learning that have been modified. The addition and deactivation features on moddle administrator had done. The features contained in e-learning this was a feature for students, lecturers and administrators.

In general the user interface to face of e-learning is illustrated in Figure 1 below:



Fig. 1. E-learning interface at Faculty Computer Engineering

On the feature to the users students level, students can see all the lists of courses in informatics program study and find courses. The user level features for lectures, lecturers can make course and manage appropriate with the subjects that are taught. While the user level of features for administator namely able to add data of the subject courses, the data of lecturers and students.

*B. Technical Spsects of E-Learning*

*1) User students of Level*

Technical aspects of e-elearning for students user level namely by technical of feasibility that e-learning was already satisfy the standards that established to facilitate students in the learning process. It proved to be all evident from the utilization of e-learning are already utilized in efficiently by the student. The students are also easy to find the desired display cause of matakuliah e-learning divide subjects course based on semester and sub majors or concentrations. The students also able to access the material of courses and assignments through e-learning. E-learning also has been used in the process of examination mainly for test of competence. However the features contained on the students user level only used to view subject courses, download materials and tasks / quis and upload answer of the task. On e-elarning, students could not do discussions with lecturer because there is no feature for that at level of the students.

### 2) *The Lecturer User Level*

Technical aspects of e-learning for users of lecturers level namely in e-learning technical feasibility already fulfill the standards that have established. The lecturers able manage classroom based on subject of courses conducted, able upload material and coursework for students and students able access the material and coursework. However, just the same with the feature on the students user level, features on the lecturers user that often used is the upload and download material that will be given to students, and features to view the answers to the tasks that are upload by the students. Besides the features most often used by lecturers, namely giving exams and quizzes online either in the form of multiple choice question, the form of essay, a question of right or wrong answer choices as well as random questions. The lecturers also able in making an assessment based on the results answer of the students exam that done by online.

A feature very important for lecturers and students are features of the Social Forum. This feature will useful when teaching and learning are discussion or interaction between lecturers and students even this feature as a regular notification board. However the e-learning at the Faculty of computer engineering, there are no features like this. Lecturer will not able communicate individually with students to discuss the lesson.

### 3) *The Administrator User Level*

In General, the user type in the e-learning consists of only 3 types of users namely, administrators, lecturers and students. With the type of division level users, make the administrator user level becomes very busy users because many of the processes that only be done by an administrator. E-learning at the faculty of computer engineering, there are no user level for department chair or chairman of study program that be able to assigned in creating subject of courses, and taught the course or designate lecturer that will teach the subjects of course and look at the subject of courses that are not published. E-learning at the faculty of computer engineering, this task is performed by the administrator however this task may actually be redirected to the chairman of the study program.

### *C. Safety Aspect*

In terms of the safety of use of the e-learning Faculty of computer engineering is not safe enough because the user name and password that used is the name and Identity number of students for a level students and use lecturer name for user name and password for a lecturer user level. This will vulnerability because the user name and password is

very easy to guess so it will be used by hackers to conduct the process of hacking

### *D. Operational Aspect*

The terms of the operational feasibility of e-learning sudah fulfill the standar that has been set in its use has been fulfill the needs of students and lecturers. For example, the students could easy to access the e-learning any time and wherever they may present. This case allows them to update the information although they were outside of the area. As for the lecturer who teach the existence of e-learning ini assist in the delivery of the lecture material may be on face-to-face meetings. Furthermore, lecturers also able benefit from e-learning to make as a medium to deliver individual tasks that able make students play active in the learning and teaching process. But with the work flow that so complex can make the users a little distracted in performing access link subjects of course that display on e-learning features many subjects of courses

On standard Learning Management System, there are Wiki features Moodle can be used by collaboratively in writing web documents directly from a web browser even though the user does not know the HTML script. The result can be a creativity in class by group or individual. This feature can be used as an assignment for the students. But in e-learning Faculty of computer engineering there are other words this menu has not been activated by an administrator and underutilized by lecturer in the teaching and learning process.

## V. CONCLUSIONS

Based on the results of the research and discussion, it can be concluded that e-learning that used in the Faculty of Computer Engineering in general had been meet with the needs of lecturers and students in the learning and teaching process such as for the assignment of coursework to students and examinations. However, there are features of the moodle that had not been meet utilized and that features is very much needed in the learning process

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