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E-Learning Application as a Islamic Mentoring on Learning System of Informatics Engineering Students

Wahyu Setiawan[a,1,*], Taufiq Qurrohman[a,2], Fachrul Kurniawan[a,3]
[a] Universitas Islam Negeri Maulana Malik Ibrahim, Malang, Indonesia
[1] cute353@gmail.com; [2] putra.gengggong@gmail.com; [3]fachrulk@ti.uin-malang.ac.id

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ABSTRACT

Information technology is developing very fast and is increasingly strengthened by the existence of the internet that has spread throughout the world. With the internet, the flow of information is increasingly spinning to the public and information technology applications have begun to emerge. These applications make it easy for people who use them, including e-mail, video conferences, mailing lists, chat, e-learning, and others. This paper implements an e-learning system as an Islamic mentoring in the Department of Information Engineering. The e-learning system has the potential to make the mentoring process more effective, because the interaction are wider open. Mentees can communicate with their mentors anytime via the internet. Through e-learning, mentees can continue learning even if they are not physically present at weekly mentoring meetings. Mentoring activities become very flexible because it can be adjusted to the availability of mentee time. Learning activities occur through mentee interaction with learning resources available in e-learning applications and can be accessed from the internet. This e-learning application can be used as a supporting facility of Islamic religious mentoring using conventional methods where mentoring participants meet weekly with their respective mentors. With e-learning applications on Islamic mentoring, mentees can interact with their mentors wherever and whenever they are. With the prerequisites, they are connected to the internet.

I. INTRODUCTION

Islamic religious mentoring is an educational process that must be passed by every Muslim student who takes an Islamic religion course in UIN Maulana Malik Ibrahim Malang. The management of Islamic religious mentoring is carried out by the Spiritual Islamic Student Activity Unit from the University level to the Department level through direct coordination with all Islamic religion lecturers. With the development of information technology, there is a thought to run this virtual or virtual Islamic mentoring method through the internet. As is well known that the internet is familiar to students and is quite easy to find. This concept offers a different way of learning from conventional methods [1], [2]. The role of mentor or teacher becomes less dominant. Mentoring participants have a more dominant role. In this concept mentoring participants are required to learn on their own from the materials provided by the mentor. Although the role of mentoring participants is more dominant, there is still a mentor who guides the mentoring process. The activeness of mentoring participants, especially in discussions will make the way of thinking more critical. These things support the creation of good Muslim personal qualities.

One of the benefits of this application is that the mentoring participant can carry out the mentoring process wherever he is as long as there are internet facilities [3]. For Muslim students, this facility can be a support of increasing Islamic knowledge with less time studying Islamic religion in the University's education system. This application does not intend to change the form of conventional mentoring that already exists, but

this application can be a choice of new methods with the development of information technology and the internet.

II. E-LEARNING SYSTEM FOR ISLAMIC MENTORING

The following illustration may help clarify understanding of e-learning. "There is someone who takes a laptop to a place far away in a small, isolated archipelago. From this very isolated place, the person starts using his laptop and accesses the various training program materials available. There is no learning assistance service from tutors or other forms of learning support services. In this context, can the person be said to have implemented e learning? The answer is NO. Why? Because those involved in the learning activities they do not get learning assistance services from tutors or other learning assistance services. What if he has a mobile phone and then successfully uses it to contact a tutor? Can it be said in this context that the person concerned has implemented e-learning? The answer is YES. From the illustration above, there are three important things can be drawn as requirements for electronic learning activities (e-learning), such as (a) Learning activities are carried out through the use of networks, (b), Availability of learning service support that can be utilized by participants, for example CD-ROMs, or printed material, (c) The availability of tutor support services that can help participants learn when experiencing difficulties. Thus, it can simply be said that e-learning is activity that utilizes networks (Internet) as a method of delivery, interaction, and facilitation and is supported by various other forms of learning services.

A. E-learning Functions

There are three of e-learning functions to learning activities in the classroom [4]. The first is a supplement [5]. It is said to function as a supplement if students have freedom of choice, whether to use electronic learning material or not. In this case, there is no obligation for students to access electronic learning materials. Even though it is optional, students who use it will certainly have additional knowledge or insight [6].

The second is a complement [7]. It is said to function as a complement if the electronic learning material is programmed to complement the learning material received by students in the classroom. E-learning material is said to be enrichment if students who can quickly master/understand the subject matter delivered by the teacher face to face are given the opportunity to access electronic learning material that is indeed specially developed for them. The goal is to strengthen the level of mastery of students of the subject matter presented by the teacher in the classroom [8], [9]. It is said to be a remedial program if students who have difficulty understanding the subject matter presented by teachers face to face in class are given the opportunity to utilize electronic learning materials that are specifically designed for them. The aim is to make it easier for students to understand the subject matter presented by the teacher in class.

The last one is a substitution [10]. Some universities in developed countries provide several alternative models of learning activities to their students. The goal is that students can flexibly manage their lecture activities in accordance with the time and other daily activities of students.

In addition, there are 3 alternative models of learning activities that students can choose from, namely: (1) completely face-to-face (conventional), (2) partial face to face and some through the internet, or even (3) completely through the internet.

B. E-learning Benefits

The benefits of e-learning according to A. W. Bates (Bates, 1995) and K. Wulf (Wulf, 1996) consists of 4 things, namely: (1) Increase the level of learning interaction between students and the educators. (2) Enabling learning interaction from anywhere and at any time (time and place flexibility). (3) Reaching students in a broad scope (potential to reach a global audience). (4) Facilitate and improve a learning material (easy updating of content as well as achievable capabilities) by managing its own learning activities. There must be a commitment from the educators who will monitor the progress of the learning activities of their students and at the same time regularly motivate their students.

C. Measure of Islamic Mentoring

Islamic mentoring is managed by the Islamic Spirituality mentoring department (Rohis). Rohis cooperated with lecturers to carry out Islamic religious mentoring. Every Muslim student who takes Islamic religion courses which are generally in the first, third and fifth semester must attend Islamic religious mentoring which is managed by the Rohis Department in coordination with the Rohis Faculty. The mentoring process runs for one semester, after one semester Muslim students can follow the mentoring follow-up. Islamic mentoring is conducted once a week with the agreed time in the group. The process of mentoring Islamic religion begins with the opening of Islamic religious mentoring. At the event, each Muslim student will be divided into several groups by the mentoring department who will then be accompanied by one mentor. This application can only be accessed by students majoring in informatics by entering the Students' ID with a password Access code for Login.

D. E-learning User Interface

Fig. 1. Mentor user interface

Fig. 2. Mentee user interface

Fig. 5. Quiz/exam user interface

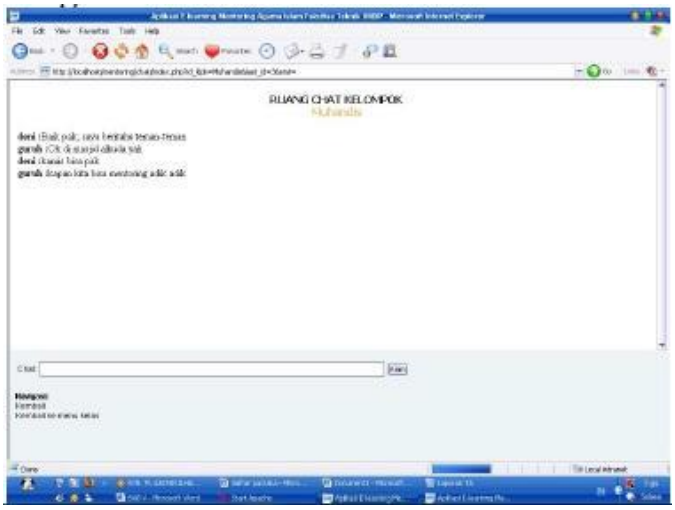

Fig. 3. Chat user interface

Fig. 6. Transcript user interface

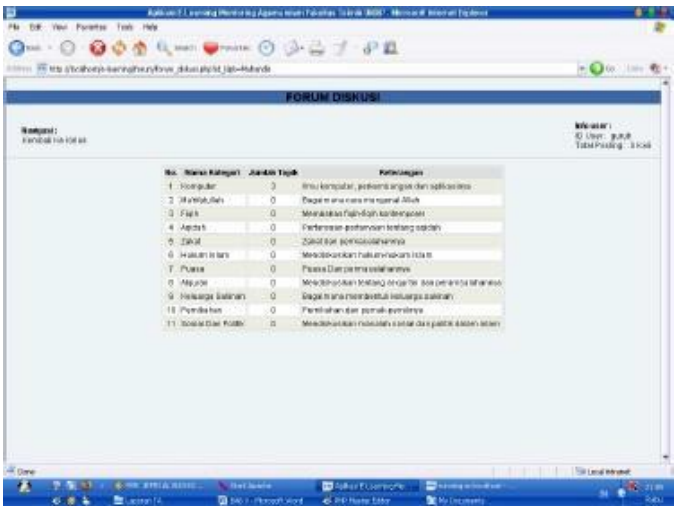

Fig. 4. Forum discussion user interface

III. CONCLUSION

The e-learning system must be supported by quality resources so that the teaching and learning process that occurs in it can be effective. The developed system is only used as supporting Islamic religious mentoring and not applied as a substitute for mentoring conventional Islamic religion. Based on the results of testing with the black box method, the e-learning system built in this case is in accordance with what was expected at the beginning of the design. In addition, the results using the white box method, the program code in the e-learning system has been quite effective both in terms of program flow, conditional statements, and the looping contained therein. A mature system design will produce a good program and in accordance with what is desired.

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