# Active Learning Through Discussion in E-Learning

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## Info Articles

## Abstract

Active learning is generally made by a lecturer in learning face to face. In the face to face learning, lecturer can implement a variety of teaching methods to make students actively involved in learning. This is different from learning that is actuating in e-learning. The main characteristic of e-learning is learning that can take place anytime and anywhere. Special strategies are needed so that lecturer can make students play an active role in the course of e-learning. Research in order to obtain the result that certain strategies can make an active student in course of e-learning was conducted using quasi-experimental research. This study is imposed on three courses in Study Program of Physics Education (Program Studi Pendidikan Fisika) of Sebelas Maret University (Universitas Sebelas Maret) that are the Geophysics, Learning Technology, and Measurement courses. In all three subjects, the researchers apply a strategy and then analyzed the results through statistical data of each course of e-learning. Based on the research, it is showed that students can conduct active learning by means of discussions in e-learning.

## How to Cite

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## INTRODUCTION

Lecturers manage learning a subject well with planning, organizing, actuating, and controlling and using the resources of learning resources or material, the learning method, and machines so that the learning objectives can be achieved effectively and efficiently. Learning can be actuated by face-to-face, online, or blending of those the two (blended learning). Online learning conducted by lecturers with the help of content management system (CMS) software. Devoted CMS to learning is a learning management system (LMS) such as Moodle.

## LITERATURE REVIEW

### E-learning

Online learning is the learning with the aid of a special electronic system for learning, commonly called electronic learning and abbreviated with e-learning. E-learning has become a part of learning to help the face-to-face learning. E-learning helps the face-to-face learning, one of them is in terms of dissemination or distribution of course materials, homework or projects from teachers to learners as proposed by Erdem & Kibar (2014).

The software that commonly used to spread information, learning materials or learning resources is called CMS. CMS that has more functionality than just share information is called LMS. Privileged LMS is the availability of learning support facilities, namely the addition of learning resources such as text, pictures, and movies and addition of learning activities such as discussion and learning valuation.

*E-learning is the continous assimilation of knowledge and skills by adults stimulated by syncronous and asyncronous learning events-and someteimes Knowledge Management output-which are authored, delivered, engaged with, supported, and administered using Internet technologies* (Morrison, 2003).

Generally it is said that e-learning also helps the learning process that cannot be done by face-to-face learning. Blending between face-to-face learning and virtual learning will maximize the efforts of lecturer as a manager in achieving the learning objectives.

*A newly emerging trend in higher education is blendedlearning, the purposeful integration of traditional (i.e., face- to- face) and online learning in order to provide educational opportunities that maximize the benefits of each platform and thus more effectively facilitate student learning* (Ayala, 2009).

### Discussion in E-learning

Discussion is an instructional method that involves more than one person in the process. Discussions are often used to solve the problem. The problem raised by the lecturer could be interesting for students to express their opinions. The problem raised by the lecturer can be a problem related learning materials. Discussions can train students to think critically, find references, the courage to express opinions, and good communication. These skills adapted to the learning objectives of a course.

In an LMS, such as Moodle, there is a facility that serves as a point of discussion. The facility is located in the additional facilities of the activity (add activity) called a forum. In the forum, lecturers can give the terms of discussion and themes or issues to be resolved by participants of the course. Facility of forum provides the opportunity for each partisipant of the course to give an opinion on any opinions that have been there. Such interactions can make students play an active role in every opinion there, both lecturers opinion and opinions of other students. Addition of facilities in the forum of a Moodle e-learning course is presented in Figure 1.
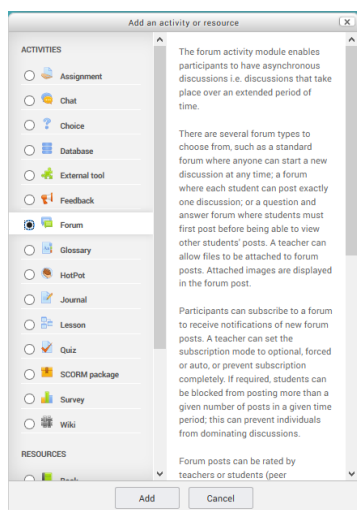
**Figure 1**. The addition of forum in an e-learning of Moodle.

**METHODS**

The used method is a quasi-experimental research. A quasi experiment is using the whole subject in the intact group for treatment, instead of using the subject taken at random as in experimental research. An intact groups or classes used in this study is three courses of Physics Education Study Program of Sebelas Maret University. The three courses are the Geophysics, Learning Technology, and Measurement courses. All three of these courses have classes in e-learning addressed http://elearning.uns.ac.id. Examples of the homepage Measurement subjects in http://elearning.uns.ac.id pages are presented in Figure 2.
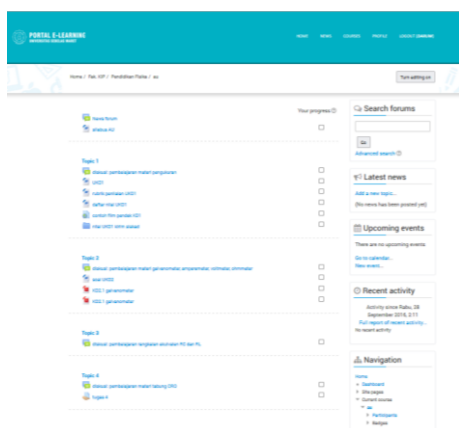


**Figure 2**. The front page of the e-learning course of measurement.

**RESULT**

Online learning that is commonly referred to electronic learning or e-learning by using LMS provides an opportunity for lecturer, in addition to creating discussion spaces; it can also find statistical process these discussions. Those facilities are not contained in the other CMS. Use of the facilities in the LMS Moodle discussion in http://elearning.uns.ac.id can be a means for active learning in e-learning in the three subjects mentioned above. Home page of e-learning UNS presented in Figure 3 below. Lecturer requires a specific strategy to get students active in the discussions in e-learning. Provisions of discussion that used in this study are:

1. Students who give answers / opinions early are better than the last.
2. Students may answer / found more than one.
3. Students are allowed to give opinions on the answer / opinion more than once.
4. Students are more answers / opinion was better than that less or no answer / opinion.
5. Lecturer gives the deadline for discussion, such as one week. Pause discussion that is too short will make it difficult for students to find material answers / responses / opinions.



**Figure 3**. Front page of e-learning Sebelas Maret University

The provisions of the discussion above are applied in the third course, which is Geophysics, Instructional Technology, and Measurement subject in Physics Education Studies Program, Sebelas Maret University. A discussion in the Measurement course is presented in Figure 4 and Figure 5. Examples of discussion are presented in Figures 4 and an example of the

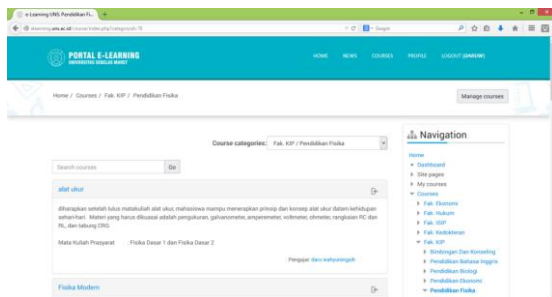process of discussion is presented in Figure 5 below.



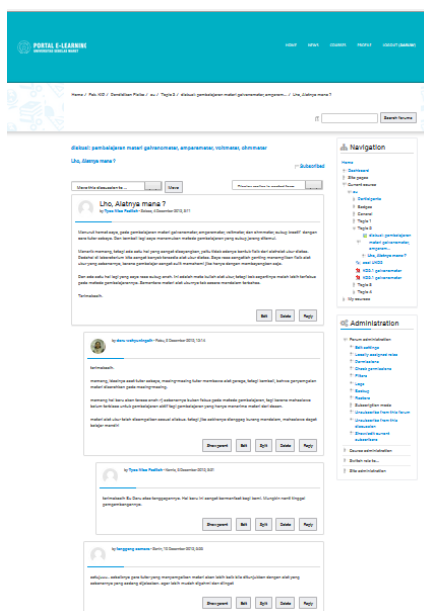**Figure 4**. An example of discussion in the Measurement course.



**Figure 5**. An example of the discussions results in the Measurement course.

Based on these studies, it is resulted that the provisions of the discussion will provide motivation for students to play an active role in the discussions. The active role of students in the discussion is an active learning undertaken by students in learning.

**CONCLUSION**

Based on the research, it can be concluded that the discussion could be the means of active learning in e-learning if it is actuated with the provisions of the discussion: 1. Students who give answers / opinions early are better than the last. 2. Students may answer / found more than one. 3. Students are allowed to give opinions on the answer / opinion more than once. 4. Students are more answers / opinion was better than that less or no answer / opinion. 5. Lecturer gives the deadline for discussion.

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