

Biology Students Perception of Learning Ethnobotany based on Electronic Learning (E-Learning)

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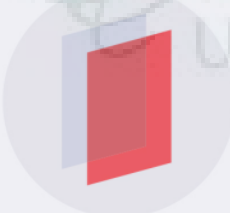
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7 **Biology Students Perception of Learning Ethnobotany based on Electronic Learning (E-Learning)**

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Abstract. Internet connection has become useful part of education. Many teachers and lecturers create electronic learning to support their learning-teaching process. The aim of this research is to know the student's perception of e-learning in ethnobotany. Descriptive research was used to get the data by giving 28 students questioners. Based on the questioners that have been analyzed, researcher found that 100% of students know about e-learning and have access to e-learning 96.43% of students state that e-learning can help the learning process and 100% of students agree that e-learning help them to access the subject matter. There are 5 obstacles identified from the survey including connection problem (96.42%), the lack of information about how to use e-learning (50%), interaction problem with lecturers through e-learning (21.43%), lack of discipline to use e-learning to study (14.29%), and don't know how to use e-learning (7.14%). Further research is needed to overcome this problems.

Keyword: e-learning, ethnobotany, internet connection, student's perception,

1. Introduction

The advancement of Information Technology (IT) has impacted on teaching and learning. The conventional teaching process changed after adopting the development of information, multimedia technology, and using the internet as a new way of teaching [1]. The use of latest technology means that one no longer needs to be located in a conventional classroom in order to be educated. Teaching and learning can be done with the help of technology called e-learning. The term e-learning has been widely used in education since the mid-1990s. Some researchers view e-learning as the delivery of teaching materials via electronic media, such as internet, intranet, extranet, satellite broadcast, audio/video tap, interactive TV, and CD-ROM [2]. Others also see e-learning as internet based learning which utilizes web-based communication, collaboration, knowledge transfer, and training to add value to individuals and to organizations they work within [3].

Electronic learning (e-learning for short) has been variedly defined by researchers, including the following, it is the use of computer network technology, primarily over or through the internet, to deliver information and instructions to individuals [4]. Another similar definition is one that sees e-learning as any form of education that is facilitated by the internet and its technologies, and encompasses the use of the World WideWeb (www) to support instruction and to deliver course content [5].

The implementation of e-learning in education is one of innovation as a result of development of network technology. Through learning using e learning, students are trained to be independent in learning because learning by e-learning can be done anytime and anywhere without having to do face to face with lecturers. As e-learning is a relatively new phenomenon, currently both the educators and students are struggling with the idea of its implementation and adaptation respectively.

Generally people have different perception of something new like e-learning. Perception is a process that starts from using the five senses in receiving the stimulus, then organized and interpreted so that it has an understanding of what it senses [6]. In short, simple definition of perception means that the way of individual to comprehend reality and experiences. Perception also means the process of understanding or giving meaning to information. In the context of this study,



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perception means a way in interpreting what is experienced by the research subject when using the internet as a medium of learning and teaching process on the context of learning and teaching ethnobotany.

FMIPA Universitas Negeri Medan has had an e-learning portal. The lecturers in biology departement have used e-learning, an both in the forms of upload learning material and doing learning activity by online discussion. Thus the main aim of the study was to understand the students perception towards e-learning by determining their knowledge of e-learning along with the usage of technology, determining the usefulness as well as its benefits and challenges from student's view. Hence this study was needs assessment study to understand the perception about e-learning from students point. The results can thus be utilized to bring about the necessary changes by incorporating the newer techniques and tools into the students learning environments. This study would help in guiding the educators to take the necessary steps in incorporating these newer learning styles for the benefit of the learner as well as incorporating higher e-learning strategies, tools and technology at institutional and university level.

2. Method

The study was conducted in Biology Departement of Universitas Negeri Medan. This research is descriptive research with quantitative approach. Data collection techniques in this study used a questionnaire. The score obtained from distributing questionnaires to the 28 students of biology departement 2016 as a sample of this research, then analyzed with descriptive statistics which are then outlined in the form of percentage of research. The step of the research: first, drafting instrument survey for collecting data. Information that is contained in instrument among others: student perception about e-learning and problem faces in learning ethnobotany based on e-learning. Second, the survey were tested validity using expert opinions. Third, compiled data with the survey of the biology student 2018 as much as 28 student. The data collected of the students in the form of qualitative and quantitative, who were conducted analysis a sort of descriptive set.

3. Result and Discussion

The results of the study are discussed in two parts. The first part consists of the students' perceptions towards e-learning in ethnobotany. The second part examines student perceptions of the obstacles that might be encountered in learning based on e-learning.

1. Students' perceptions towards e-learning in ethnobotany

The first part of this study discusses the perception of learning based on e-learning. The researchers explore student knowledge related to e-learning and their perceptions related to the benefits of e-learning in helping learning activities and accessing subject matter in ethnobotany.

Based on the questionnaire result obtained data that 100% of students know about e-learning and have accessed e-learning. They opinion about e-learning can be seen in Table 1.

Tabel 1. Students knowledge about e-learning

No.	Students opinion about e-learning
1.	Learning through the internet network
2.	Internet site that helps learning
3.	Online learning
4.	Education system that utilizes information technology
5.	Method of learning through the web without face to face learning
6.	Website in education that can be accessed anywhere and anytime
7.	There are several features for managing tasks
8.	Digital learning services

9. Electronic learning system

Based on the table 1, it can be concluded that students have knowledge related to e learning. They opinion about e-learning in line with the definition of e-learning delivered by experts. According to Dobre (2007), the electronic learning [e-learning] can be defined as a means of education that incorporates electronic equipments and tools and the interactivity that occurs between these and the people involved in the educational process (i.e.: instructors and learners)[7]. Masroom state that e-learning as any form of education that is facilitated by the internet and its technologies, and encompasses the use of the World WideWeb (www) to support instruction and to deliver course content [5].

Student perception about the benefit e-learning, obtained data as much as 96.43% of students agreed that e-learning was beneficial in support learning activities, while the remaining 3.57% expressed doubt as show in Figure 1.

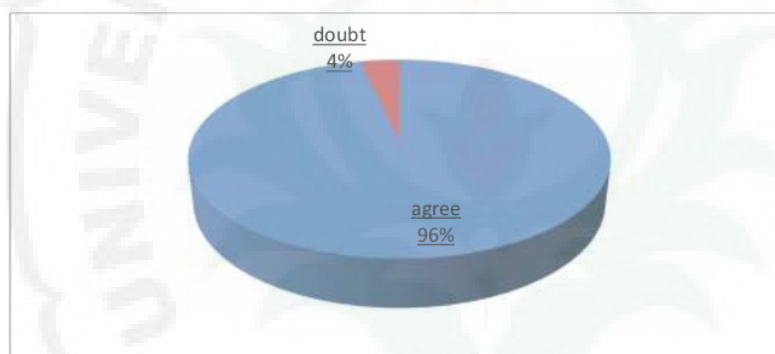


Fig. 1. Student's perception of e-learning in support learning activities aspect

The present study showed that the maximum [96.43%] students agree that e-learning support learning activities. This could be due to the fact that as e-learning is more flexible than the traditional face to face learning. Moreover, e-learning can help the students understand complex topics or subjects easily with the help of pictures, audios, videos, animation and can get real life experience which is not possible in face to face learning [8] . In a similar study conducted by Buzzetto-More (2008), most students (75.6) felt that course websites should be added to all of their courses [9].

But the only resources available on site were computer labs, access to various online e-journal and educational websites, thus this necessitates the need for a proper well established e-learning platform for students which will be in accordance with their learning needs and their curriculum too. This will serve as a supplement to the traditional teachings methods followed in the Institution and will thus enhance the students educational experiences. Students used different forms of communications with faculties through emails, chats, blogs, face book, WhatsApps, instant messaging etc but these tools are hardly integrated into the teaching and learning environment at the Institutional or University levels. This can be overcome by implementing learning platform into the Institute which will definitely act as a bane for the learners due to its ready access of anytime and anywhere.

E-learning also beneficial in another aspect according to the student perception. As much as 100% student argue that e-learning can help them to access subject matter due to the ease of accessing e-learning. In the aspect of ease of access, analysis results show that 100% of students stating e-learning is easy to access. Accessibility is a level of comfort for a person to achieve objectives related to communication behaviour [10]. Most of the students access e-learning by going through a web browser both from smartphone and laptop.

2. Student perceptions of the problem that might be encountered in e-learning . .

From the questionnaire, the problems of e-Learning identified from students' opinion are shown on the table below.

Table 2. Problems of e-learning from student perspective

No.	Problem	Percentage
1.	Lack of information about how to use e-learning	50%
2.	Don't know how to use e-learning	7.14%
3.	Lack of discipline to use e-learning to study	14.29%
4.	Interaction problem with lecturers through e-learning	21.43%
5.	Connection problem	96.42%

Table 2 show that there are many obstacles identified from the survey. The major obstacles faced by students in the implementation of e-learning, in particular are connection problem 96.42 %, the lack of information about how to use e-learning 50%, interaction problem with lecturers through e-learning 21.43%, lack of discipline to use e-learning to study 14.29% and don't know how to use e-learning 7.14%. Lack of discipline means students generally found it's hard to start studying on their own without any supervision.

From the interview, it is also known that most students do not have a problem with their knowledge of technology. They can use ICT and internet very well. The problem about technology is more on the internet connection which are related to the infrastructure.

From student point of view, the implementation of e-learning will still face a lot of obstacle. Sstudents feel that infrastructure problems, difficulties in understanding the material and also low discipline of students will obstruct the e-learning process. The result of this research also agrees with the result of the experiment conducted by [11]. From the experiment, it can be concluded that in the implementation of e-learning, the problems usually faced by students are: - Infrastructure problem such as internet connection, electricity, telephone and others which are affecting the access of e-learning.

In order to run e-eaming completely, then the obstacles should be solved first. Some recommendations can be divided into two terms, i.e. long term solution and short term solution. Long term solution includes the betterment of infrastructure related to the connection of the internet (the speed and accessibility) and also socialization and habituation for the students to solve lack of discipline problem and how to use e-learning problem. The socialization and habituation was meant to familiarize the student with the new way of learning. Indonesian students still accustomed to the conventional way of learning where they have to attend a class with a lecturer in front of them. Therefore it is important to do a routine socialization and habituation in order to change the student's perspective. Short term solution includes the coercion to use e-learning. This coercion can be done by using a system where the students have to access the e-learning site which has an attendance counting machine. The system will have the same function as attendance list in class. If the student's attendance less than 75%, as stated in the Higher Education Directorates General (DIKTI) regulation, they can not do their examination. This kind of system can be easily implemented by recording the activity of each user (i.e. students who use e-learning website). When users log in to their e-learning account, the system should record some important data such as date and time of log in as well as the date and time of log out and the duration of visit. This data can be recorded in the system's database and finally it can be used to gauge not only the student's attendance rate but also student's activity level. The final recommendation, to solve the difficulties in understanding the material, is that the lecture material can be uploaded in various ways, not only in written form but also in recording or video form. In order to have a better understanding upon the material, students also thinks that a forum or question and answer part in the e-learning site can be added. Also according to [12], it is better to deliver the course

¹⁶ in several different delivery methods ¹⁷ such as face-to-face interactions, self-paced and individualized learning and online interactions. The feedback from students should be continually being taken into account while designing and implementing the eLearning, which results in students' better appreciation of the purpose of introducing eLearning.

4. Conclusion

The study found that all of the student know and have access e-learning (100%). From their perception, elearning benefit in some aspect including support the learning teaching activities (%).help them to access subject matter (%). The student faced several obstacles in the implementation of eLearning. Connection problems, the lack of information about how to use e-learning, do not master how to interact with lecturers through e-learning are the most obstacles that student faced. According to the study, there are some recommendations from student perspective to solve these obstacles. For the long term solution, betterment of infrastructure is needed to solve the connection problems while socialization and habituation are needed to solve the low independency problem. Short term solution includes the coercion to use eLearning. This coercion can be done by using a system where the students have to access the eLearning site which has an attendance counting machine. When users log in to their eLearning account, the system should record some important data such as date and time of log in as well as the date and time of log out and the duration of visit. Further research need to adressed this problems.

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