

PERSPECTIVE OF RIAU UNIVERSITY STUDENTS TOWARDS LECTURERS WHO USE TECHNOLOGY IN TEACHING AND LEARNING ACTIVITIES

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Abstract

It cannot be denied that the use of technology in field of education cannot be avoided. By using technology during explaining the lesson, both the lecturers and students gain lots of benefits. The purpose of this research are: (1) To analyze the Riau University students' perspectives on lecturers who use technology in teaching-learning activities; (2) To analyze what types of technology used by the lecturers in teaching-learning activities; (3) To analyze the students' expectations to lecturers using technology in teaching-learning activities. This public opinion survey was conducted to 675 students who are sitting at the second, third and fourth year in academic year 2016-2017. A questionnaire was used as the instrument of the research and then the data were analyzed descriptively. This research results show that the Riau University students' have good perspective on their lecturers using technology in their teaching-learning activities. From thirty aspects being observed, twenty two aspects have developed well, and eight aspects still need to be developed. Verified by interview results, it is stated that lecturers are required to be more creative in using teaching technologies. Moreover, lecturers who only use common technologies such as LCD, photography, video, and Microsoft office should make improvement by using varied technologies.

Key words: *perspective, technology, teaching-learning activities*

I. INTRODUCTION

Today, technology is integral to human life and technology can be found everywhere. The more advanced the life of a society, the more technology developed and used. In accordance with its purpose, the objective of using technology is to help people solve the problems that occur in life. The use of technology in education can be used to make the learning and teaching process more meaningful, impressive and memorable (Barlow 2012). By using technology in the teaching-learning process, the task of the teacher becomes easier. The learning process no longer depends on the old tradition known as chalk and talk system but turned into fun and convenient activities. By using technology in teaching-learning process, the teachers' tasks will become easier. The teaching-learning process does not depend on old tradition which is known as *chalk and talk* system, but it has become a convenient activity.

Talking about technology in education, there are two things that cannot be separated; they are: information technology and communication technology. These two aspects are known as information and communication technology or ICT. ICT developments can be utilized to support educational reformation system. The development and advancement of ICT can give special impression to education (Khan 2007). The aspects related to ICT are not only concerning the use

and management of computer technology with various programs but also concerning how to use advanced technology application in teaching-learning activities.

Ally (2007) states that most young generation nowadays use technologies such as computer, internet, and smartphone only for entertainment and social activities. Actually, these gadgets are used to get knowledge, information, multimedia sources for communication to each other. Ally also states that it is much better if the technologies can be used for teaching-learning goals. The use of technology becomes interesting because the use of computer, internet and smartphone enables people to roam and get information from outside class. To make the application more meaningful, the teachers should be able to design the gadgets well to support the teaching-learning materials (Mohamed Amin & Zamri 2008). The objectives of the application of educational technology is to make the teaching-learning process more meaningful and impressive. By the application of technology in teaching-learning process, the teaching-learning tasks become easier. Teaching-learning process does not depend on old tradition of chalk and talk system, but it has changed to become a convenient activity.

Educational technology in teaching-learning technology is designed to help teachers to solve educational problems so that it can give benefits to improve teaching-learning qualities. Association for Educational Communication and Technology (AECT) states that teaching-learning technology is theory and practice in design, development, utilization, and evaluation about teaching-learning process and resources.

The utilization of technology in teaching-learning activities cannot be separated from computer-based learning. Many definitions and criteria for computer-based learning are given by experts, such as: Nor Azan (2005), Mayer (2005), Jamaluddin and Zaidatun (2003), and Huang (2008). They all agree that learning using technology is computer-based learning using texts, graphics, sounds, maps, animations, moving pictures, static pictures, photographs, videos, connected to LAN or WAN and the use of technology in education can help teachers solve problems that occur in education.

In everyday life it can be seen that learning tools such as computers, especially lap top, internet and various current smart phone brand is no longer a luxury for a student, including the students of Riau University. The existence of this technology is already an integral part of their lives. Students' interest in the use of technology should be utilized by lecturers in the context of learning. It would be interesting if the lecturers are able to make the technology very close to the student leading to the acquisition of knowledge. In other words, the lecturer should be able to optimize the utilization of these various device to make the delivery process of knowledge becomes more interesting. The use of technologies by the lecturers can be seen as an alternative way to improve students' motivation in learning because it can present the subject matter which is accompanied by pictures and animation. It is interesting to see whether lecturers of Riau University have been able to use such technology in classroom learning activities and how students' perspectives on technology used by lecturers.

The purposes of this research, however, are : (1). To analyze the Riau University students' perspectives on lecturers who use technology in teaching-learning activities; (2) To analyze what types of technology used by the lecturers in teaching-learning activities; (3) To analyze the students' expectations to lecturers using technology in teaching-learning activities. Hopefully, this research may give contribution as the following: (1) As a theoretical contribution, this research is very concerned to examine and test the use of technology in teaching activities; (2)

Practically the results of this study are also expected as the transfer of knowledge. It gives a clear insight to lecturers and students about utilizing technology in teaching activities; and (3) The results of this study will also can be used as reference for other researchers and parties, especially in improving the ability of students through the use of technology in learning activities.

II. REVIEW OF RELATED THEORIES

The theory used in this research is concerning the students' perspective. Perspective means the way of looking toward something. Hence, the perspective here is somebody's evaluation about a certain phenomenon that occurs. Here are several definitions of perspective according to some experts.

According to the Big Dictionary of Indonesian, perspective is the way to show a certain object on the surface as can be seen by eyes with three dimensions: (1) Length, weight, and height; (2) Perspective or view point. Suhanadji and Wasposito (2004) states that perspective is somebody's way of looking or in evaluating problems that occur around him. Crossman and Devisch (2002) also states the same idea and according to them, perspective is a series of assumptions concerning realities based on the questions that are raised and the type of answers that are expected as the result. From the above definitions, it can be stated that perspective is the way of looking that occurs because of somebody's awareness toward a certain issue that occurs. In this case, it is concerning the lecturers who use technology in teaching-learning activities.

The knowledge transformation from the lecturers to the students occurs during the teaching-learning process. In order to reach the expected quality, it is important to pay attention to the following components: (1) Clear teaching-learning objectives; (2) Teaching-learning methods being used ; (3) Teaching-learning materials to be presented; (4) Suitable teaching-learning media; (5) Conducive teaching-learning environments, so that it can develop and achieve all the students' potentials.

For the students, perspective can be used as additional knowledge and vision so that they can see what happens with a wide vision. Through this research, the students are expected to be able to train themselves to have a wide vision about the five components mentioned before. Furthermore, by having high perspective, the students can easily interact with teachers harmoniously so that they can compete fairly.

Besides the perspective, the theory of educational technology is also discussed. Educational technology always develops from year to year. A famous explanation about educational technology is given by the association for educational communication and technology (AECT 1977). Educational technology concerns with people, procedures, ideas, instruments, organization, and analyzing problems related to all aspects of human learning, designing, doing, evaluating, and teaching and learning problem.

On the other side, Januszewski and Molenda (2008), states that educational technology is a study and practical ethics to facilitate learning and to improve work through creating, using, managing process and adequate resources. While Miarso (2009) states that educational technology is a field concerning facilitation of human learning through systematic efforts in identification, development, organization, and utilization of various learning resources and managing the whole process. Therefore, educational technology principles should be

implemented in all educational process of all subject matters and for self-development and the school cultures.

In daily life, educational technology is often mixed up with teaching learning technology. Actually teaching-learning technology is a part of educational technology. Teaching-learning technology is a series of integrated process that involves people, procedures, ideas, instruments, organization, and management of educational problem solving that occur during the teaching-learning process that has clear objectives. The experts of educational technology think that the main role of educational technology is to help increase efficiency in all teaching-learning process. In short, the use of technology in teaching-learning activities are: (1) to improve learning quality and comprehend learning materials; (2) to shorten the time needed to reach the expected goals of learning; (3). To improve the ability of teachers to pay attention to the students individually in relatively big classes without decreasing the teaching learning quality; and (4) to reduce cost without reducing learning qualities.

There are two things that cannot be separated when we talk about technology in education; they are information technology and communication technology. Information technology covers all the processes related to the use of technology as aids, manipulation, and information management. Communication technology covers everything related to the use of aids to process and transfer data from one instrument to another. Therefore, information and communication technology is defined as a set of instruments and technological resources that are used for communication, creation, distribution, storage, and information management. This technology includes computer, internet, broadcasting technology, and telephone (Ariani Niken & Haryanto Dany 2010).

Advanced information and communication technology which has been developed so far is sufficient to facilitate, supply, develop or sharpen one's mind, and ease teachers and students' work. Various work such as exploring, recording, note-taking, data collecting, data calculating and processing, analyzing the data, drawing, visualizing, and arranging them into a report format can be done using encyclopedia application (interactive CD-ROM), world-wide-web, spreadsheet, graphic design, presentation tools, etc. Meanwhile interaction and sharing with the students or interview with resources, searching, etc. can be done using networking application such as e-mail, world-wide-web, chat, voicemail, and tele-conference.

Some of the advantages of using technology in the learning process are: to facilitate and accelerate students' work, and also can create fun situations of learning because students interact with colors, pictures, videos and something instant. Fun situation of studying is actually a factor that is very important and ideal for achieving learning effectiveness. Moreover, using technology is able to evoke positive emotions in the learning process. The best conditions for the brain to absorb information properly and effectively are on favorable situations rather than stressful ones.

From the explanation above it can be stated that teaching-learning using technology is a computer-based learning using texts, graphics, sounds, maps, animations, moving pictures, and static pictures, photographs, videos, that are connected through LAN and WAN. In teaching-learning activities, text, graphic, sounds, maps, animations, moving and nonmoving pictures, photos, videos, can be integrated the form of word, power point, web, and prototype. The utilization of computer based teaching learning media can help teachers to present teaching learning materials. Besides that teaching learning activities become convenient with more variation to increase the students' interest to join teaching learning activities. How is the students

perspective concerning computer based technology utilization when it is related to some components such as teaching learning objectives, teaching learning methods, teaching learning materials, teaching learning media, and teaching learning environments that are conducive to be able to reach and develop all the students potentials.

III. RESEARCH METHODOLOGY

This research is a survey research. The purpose of survey research is to know the public opinions about certain things. In this case, to know and analyze the Riau University students' perspectives on teachers using technology in teaching learning activities. The population of this research includes all Riau University students that consisting of nine faculties in academic year 2016-2017. Using stratified random sampling, 25 students from each faculty in the second, third, and fourth years are selected randomly to become samples. The students in the first year cannot be included as samples in this research because when the data were collected they were just beginning the teaching-learning activities as new students. Therefore, the number of research sample is 675 students.

The data needed for this research are concerning the Riau University students' perspectives on teachers who use technology in teaching-learning activities. The instrument used to get the perspective is a questionnaire. This questionnaire is divided into three parts. The first part (part A) is expected to obtain pictures about students' demographic data and information concerning their knowledge about technology in general. The second part (Part B) is expected to obtain information about Riau University students' perspective on teachers who use technology in teaching learning activities. The technology uses includes: texts, graphics, sounds, maps, animations, moving pictures, static pictures, photographs, videos, connected to LAN and WAN which is integrated to work type, power point, web, and prototype. The third part (Part C) is provided for the students to give comments and expectations on teachers who use technology in their teaching-learning activities. The data obtained are analyzed descriptively and presented in the forms of tables and diagrams.

IV. FINDINGS AND DISCUSSIONS

Below will be discussed the students' response on the given questionnaire to answer the research questions.

RQ 1: How is Riau University students' perspectives on lecturers who use technology in teaching-learning activities?

In general, the perspective of Riau University students toward the lecturers using technology in teaching-learning activity is good. This can be seen from the result of data analysis consisting of thirty aspects that are questioned. Twenty two aspects have been well developed, while eight aspects still need to be developed. The highest positive responds (72.59%) is about statement number one: *The lecturers design technology-based learning objectives clearly and focused.* This explains that the ability of the lecturers to design learning objectives by using technology is good, however, according to the students, it is not yet in line to the implementation due to the lack of facilities.

Eight aspects that need to be developed are the following: (1) the lecturers rarely analyzed problems related to technology-based teaching learning objectives; (2) the lecturers have not designed technology-based teaching learning system very well; (3) the lecturers have not carry out technology-based teaching learning process; (4) the lecturers have not evaluated the suitability between the teaching learning materials, the curriculum and the students' needs periodically; (5) through technology application, the lecturers have not design technology-based teaching learning media that can be used as aids and teaching learning communication facilities, (6) the lecturers have utilized technology in teaching learning process but not yet through good planning and organization; (7) the lecturers have not evaluated the technology-based teaching learning media utilization periodically; and (8) the lecturers have not done teaching learning activities that are supported by conducive teaching learning atmospheres through the use of adequate technology.

The result above is strengthened by the students' comments stating that teachers only use regular technology (LCD, photos, videos, and Microsoft office). They should actually improve and use technology variation. The improvement and the variation use of technology in teaching learning activities can be seen from the explanation of Asmani (2011) who says that the teachers have not done some activities in teaching learning process due to the lack of facilities. The activities includes the use of information technology in education related to sharing research result, consultation with experts, library online, discussion online and class online.

According to Kamelia (2015) the use of technology, such as the use of Microsoft power point has become usual in teaching learning in the classroom. Therefore more advanced and interactive technology is needed to be improved. One of the interaction technology developed is *augmented reality technology*. In simply, augmented reality is the combination between virtual things and real things naturally through computer process as if the reality is in front of the user.

RQ2: What types of technology used by the lecturers in teaching-learning activities?

Results of the analysis data showed that the types of technology often used are LCD projector, e-mail, Microsoft Office (PowerPoint, Word, and Excel), and video. Based on analysis of student comments regarding the use of the technology used lecturer in learning activities in general is good. More details can be seen in Table 1.

Table 1: Students' Comments Regarding the Use of the Technology

No	Criteria	No of Students	Percentage (%)
1	Excellent	224	33,19
2	Good	279	41,33
3	Moderate	139	20,59
4	Not so good	33	4,89
Total		675	100

The high percentage of positive responses of students (excellent and good) regarding the use of the technology used by the lecturers due to several factors, namely many lecturers have uses laptop as the media to clarify the subject being discussed. Delivery of tasks and

materials also utilize technologies such as email. The use of technology can clarify the matter / concepts, facilitate students learning beyond the classroom, increase the spirit of students learning, learning activities becomes effective and fun, learning is not monotonous, the variation in learning, material / concept can be updated, learning to be effective, and can motivate students.

RQ3: What are students' expectations to teachers using technology in teaching-learning activities?

Based on data analysis and interview, it is found out that the teaching- learning activities presented by the lecturers are often monotonous. This situation make the students do not involve actively and constructively during the teaching-learning process. For the future, the students hope that the implementation of technology-based teaching-learning activities is placed not only on the teaching materials but also on the technology being used. Hisham, Campton and Fits Gerald(2004) in Mason and Rennie (2010)explain that the need to learn in the communityand the ability to select resources from asynchronous e-learning can fulfill personal needs.

Another interview result shows that technology-based teaching-learning activities must be supported by good facilities. In general, the condition of facilities at Riau University nowadays is not yet sufficient. For example, the number of LCD is limited because many of them are already broken and there is no replacement, the lack of special computer room in every study program and the imbalance of abilities among teachers in using technology for teaching-learning activities. Oviyanti,F(2013) also states that the availability of facilities suitable for globalization needs becomes an important component that must be provided for educational institutions.

In general, the result of this research shows that the use of technology is very beneficial for students and teachers especially during the teaching-learning processto improve self-competence. Thestudents can understand the materials and concepts easily, learn the materials and concepts at home effectively and efficiently, increase learning motivation, obtain materials periodically from teachers. The materials and concepts being learned are more up to date, learning becomes more convenient and not monotonous when interactive technology is used, and teaching-learning activities become more focused because abstract concept can be clarified using technology. Mulyanta and Leong (2009) state that the objectives and the roles of information technology in education are: (1) to improve the competitive positioning;(2) to improve brand image;(3) toimprove teaching-learning qualities, (4) to increase the students' satisfaction (5) to increase income; (6) to widen the students' vision (7) to improve the service quality; (8) to reduce operational cost; and (9)to develop new products and services.

V. CONCLUSIONS

This research shows that in general the Riau University students' perspective toward the teachers using technology in teaching-learning activities is good. This can be seen from data analysis resultsthat spread in 30 statements. The result of data analysis shows that 22 aspects have been well developed and 8 aspects still need to be developed. As the whole, the highest positive respond of the students say that *the lecturers design technology-based learning*

objectives clearly and focused but it is not in line with the implementation, due to the lack of facilities.

The eight aspects that have not been developed are also supported by the interview results which state that teachers only use regular technology (LDC, Photographs, Videos, and Microsoft Office). There is a need to increase the technology variations and the teachers should be more creative in using technology during the teaching-learning activities. The availability of the facilities and evaluation of the ability of the teachers in using technology are needed so that the mapping of the teachers' ability in using technology is useful for the development of their competence. Besides that, training and adequate facilities are needed to develop the teachers' competence in the field of teaching-learning technology.

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