

The Role Of Information And Communication Technology Towards E-Learning Media In Higher Education

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Abstrak

Penggunaan teknologi informasi dan komunikasi (TIK) akan semakin canggih dari waktu ke waktu. Itu tergantung pada pengguna yang semakin pintar dalam mengoperasikan teknologi. Pengaruh globalisasi membuat kemajuan teknologi informasi dan komunikasi berkembang pesat. Di era yang semakin modern dan teknologi yang semakin canggih, inovasi media pembelajaran akan semakin mengalami pembaharuan. Di era modern ini khususnya bidang pendidikan membutuhkan sarana dan prasarana untuk menunjang proses pembelajaran. Sarana dan prasarana yang dibutuhkan antara lain komputer, laptop, proyektor, speaker audio dan komponen lain yang tersedia pada peralatan tersebut. Media pembelajaran ini bertujuan agar pembelajaran lebih efektif dan efisien. Media pembelajaran berbasis TIK berupa internet, handphone, CD Room/Flash Disk dan lain sebagainya. Adanya kemajuan teknologi membuat pengguna meningkatkan kompetensinya dalam pengoperasian TIK.

Kata kunci: TIK, E-learning, Zoom, Google Classroom

Abstract

The use of information and communication technology (ICT) was become more sophisticated from time to time. It depends on the users who are getting smarter in operating the technology. The influence of globalization has made advances in information and communication technology develop rapidly. In an increasingly modern era and increasingly sophisticated technology, learning media innovations will increasingly undergo renewal. In this modern era, especially the field of education requires facilities and infrastructure to support the learning process. The facilities and infrastructure required include computers, laptop, projectors, audio speakers and other components available in the equipment. This learning media aims to make learning more effective and efficient. ICT-based learning media in the form of the internet, mobile phones, and CD Room/Flash Disk and so on. The existence of technological advances makes user increase their competence in the operation of ICT.

Keywords: ICT, E-learning, Zoom, Google Classroom

INTRODUCTION

Information and Communication Technology (ICT) not only improved communication in the 21st century, but also prompted a rethinking of promoting online learning. In this modern era, the development of information and communication technology (ICT) is progressing very rapidly. The various activities require the involvement of technology in their environment. It aims to simplify and make everything more effective and efficient. The development of information and communication technology today has become commonplace in society. In the early 1980s, computers were started to

be used in schools. It was suggested that ICT would emerge as an important part of education for the next generation (Bransford, Brown, & Cocking, 2000). Talking about the field of education as one of the assets of the nation's progress through the field of education by involving technology to support the learning process between lecturer, teachers and students. The role of lecturer and teachers as an educators in the progress of the nation is very important because a lot of needed to provide an overview to the younger generation in the use of technology more precisely and usefully. Therefore, the educator must improve their competence in the field of technology so that they can channel the abilities they already have to their students.

In the age of Information and Communication Technology (ICT) is very necessary and how the importance of using ICT (*Information Communication Technology*) in various ways, especially learning activities. By utilizing ICT someone can improve the quality of education, namely by opening up opportunities for access to knowledge and quality and quality education providers. Information and Communication Technology systems provide a broad, fast, effective, and efficient reach for the dissemination of information to various parts of the world. Learning activities are the most basic activities in the whole educational process. Along with the development of science and technology in all fields also develops so that all life will follow the times.

Information and Communication Technology (ICT) which is growing rapidly has penetrated all aspects of the life of the Indonesian people. One of the most important aspects of national life is education. One effort that can be done by the government is to encourage institutions such as schools, institutes, colleges/universities, to use ICT for learning. Not only encouraging but also providing the technology so that it can be used by all users properly. The success of educational goals is very dependent on how the learning system is designed and implemented in a professional manner. Every learning activity always involves two active actors, namely teachers and students. The teacher is the creator of student learning conditions that are designed intentionally, systematically, and sustainable. Meanwhile, students as the parties who enjoy the learning conditions created by the teacher. Therefore, education and development of teachers is very important for the successful implementation of the ICT-based curriculum.

The rapid advances in ICT in recent decades have created numerous new opportunities and challenges in delivering the learning experience. The higher education system is facing a changing role, as a technologically-savvy generation demands an interactive experience whose impact far exceeds that of traditional textbook learning (Son and Simonian 2014; Li 2014). The media used as a means of communication between one person and another such as Zoom, Google Meet, Google Classroom, Whatsapp and another media that used for learning management system. In contrast to the field of education that uses its own learning media with an e-learning system using Learning Management System (LMS). LMS is the main way in the teaching and learning process by utilizing a form of software. Through LMS, teachers are required to create an e-learning system that allows students to access the e-learning-based platform. In addition to using Learning Management System which makes it easier for someone to access a web or application, E-learning system also makes it easier for someone to just access it anywhere and anytime.

METHOD

In this study, the researcher used qualitative descriptive and data collection used interview. According to Royani and Sadiah (2002) qualitative research is more all encompassing and frequently includes a rich assortment of the information from different sources to acquire a more profound comprehension of the individual participants, including their conclusions, points of view, and attitudes.

This research required four participants to answer several questions. The participants are college students in Karawang. There are a series of methods by collecting some data taken from various reliable sources, namely books, journals, research reports and others in order to obtain data related to the topic under study, namely the role of information and communication technology towards e-learning media for college students. Literature study itself is a data collection technique by conducting a review study of books, literature, notes, and reports that have to do with the problem being solved (Nazir, 2003). In addition, using an interview that provides several questions to participants related to the problems.

FINDINGS AND DISCUSSION

After the researcher collected all of the data, the researcher got some results. This chapter consisted of findings and a discussion of the research. The finding of the research presented the result of the students' interviews.

The role of E-learning media in higher education

The term "E-learning" was devised in 1998 by Jay Cross; Electronic learning or E-learning is a popular way of developing education by technological breakthroughs. In general, the term E-learning is synonymous with online learning. Khan (2003) stated that E-learning as "an innovative approach for delivering well-designed, learner centered, interactive, and facilitated learning environment to anyone, anyplace, anytime") p.3). According to Congruz-Bacescu, M. (2013) defines "E-learning concisely as the use of internet technologies to provide a broad range of solutions that enhances performance and knowledge. E-learning also means any act or virtual process used to obtain data, information, skills or expertise.

The definition of E-learning according to The ILRT of Bristol University (2005) e-learning is the use of electronic technology to deliver, support, and improve teaching, learning, and assessment during the learning process. Deka (2020) stated that the use of e-learning is becoming a dominant type of education. Students have several options for developing and presenting aesthetically stunning educational environments using computer multimedia. E-Learning is an information system that facilitates online learning and processes, stores and disseminates educational material and support administrations and communication associated with teaching and learning. E-Learning is a form of technology-mediated education, in particular referring to the use of software and online learning. The applications involved in E-learning are electronic media such as internet, intranet/extranet, satellite broadcast, audio/video tape, interactive TV, CD-ROM to deliver learning materials more flexibly.

Zoom as Learning Media

Zoom is an effective educational platform for teaching EFL at a higher education level. Zoom is popular with students (Dias, Murillo, Raphael & Teles, 2020). Zoom was created as a video conference media. Since the corona pandemic has proceeded in the absence of face-to-face classes, teaching and learning activities have switched to virtual classrooms, held through Zoom meetings. Zoom video conference has the best features for applying virtual classrooms, such as share screen, video breakout room, recording, and two-way video and audio. "Currently, it has 12.92 million active users, which can offer Zoom's effectiveness and attractiveness as an educational media" (Novet, 2012). This cross-platform application can be introduced on various sorts of advanced mobile phones like iPhone, Android, PC, and so on. This platform can encourage the students to enhance positive learning outcome because of the useful features in this application. Zoom can also influence educator

professional development, context, and pedagogical beliefs to integrate this technology platform in various learning. Nadezhda (2020) states Zoom video conference helps teach in distance learning. In other words, for effective online teaching and learning, connectivism seeks lecturers to support students by ensuring that hardware (mobile phone, laptop, workstation and others) and software (Zoom, Internet and others) resources are made available, so that they can connect to the online lectures (Khoza, 2019; Mpungose, 2020b).

The perception of using zoom as learning media

Many benefits are obtained when using zoom as a learning medium, especially making it easier for distance learning. This was obtained in interviews with participants:

Researcher : Does Zoom application helps virtual/teleconference learning?

Participant 1 : Yes, It does. Zoom is very helpful in distance learning. Zoom is also complete with features that can be accessed and facilitate learning

Participant 2 : Zoom helps me to learn when cannot meet face to face. But the advantage of using zoom is sometimes there is a time limit. If it is not registered to premium zoom, then the use of the zoom that exceeds the zoomed time will automatically exit.

Based on the result of interview above, students feel that using zoom has advantages and disadvantages. In order to maximize the use of zoom in learning, zoom is registered to premium learning to support the learning process optimally.

Google Classroom as Task Collection Tool

Google Classroom was developed by Google Inc. for academic institutions and was publicly launched on August 12, 2014. Google Classroom is a free platform in the Google Apps, non-profits, and easy for students and teachers to connect inside and outside class. Furthermore, it is designed to make teachers' lives a little easier and more organized. This application saves time and is paperless, and makes it easy to manage classes, give assignments, communicate and be systematic (Hulse, 2019). Google Classroom can be used to create and manage classes, assignments, grades and provide live feedback. The google classroom application is very easy to use in learning activities. It has a functions as a learning media that is easy to operate, creates a discussion space between educators and student, and does not waste quotas. The advantages that teachers feel when using the google classroom portal, namely the google classroom portal, can be used to support the learning process (Diantari, Wisudariani, and Artika 2021), Google Classroom's benefits include its effectiveness and efficiency in well-structured learning. In addition to the advantages there are also disadvantages in using Google. The disadvantages of google classroom are 1). The problem with the campus's internet network are to blame for the first weakness 2). Absence of tools for formula writing and picture inclusion while creating questions for essays and multiple choice tests. There are no automated tests or quizzes in Google Classroom.

The perception of using Google Classroom as Task Collection Tool

Many advantages and disadvantages are obtained when using Google Classroom as a task collection tool, especially making it easier for submitting the task. This was obtained in interviews with participants:

Researcher : Is the Google Classroom application suitable as task collection tool?

Participant 1 : Yes, In my point of view google classroom is the best tool in submitting the task. Even though the appearance of google classroom is still simple and does not attract the attention of students.

Participant 2 : Google classroom is very helpful in collecting the task, moreover there is a notification that reminds me when the deadline is near.

Based on the result of interview above, students' perception that using Google classroom has advantages and disadvantages, especially in usability in submitting various tasks. In order to maximize the utilization of google classroom in learning, it must update to have a more attractive appearance

CONCLUSION

Based on the research that we have complete, it can be concluded that the role of information and communication technology increase development of e-learning media. In this case, there are many challenges that can trigger the use of technology and information to be hampered, starting from unstable connections, inadequate facilities, less supportive media used to access these applications and so on. In addition, the use of ICT cannot avoid the advantages and disadvantages that arise when accessing it. The advantages that arise when using ICT in accessing media certainly have a good influence on users. The advantages obtained certainly make it easier for users to access various applications that require the role of technology in it. The information needed will be faster and easier to access for educational purposes. Moreover, innovation in learning is growing with the existence of e-learning innovations that further facilitate the educational process. Advances in ICT will also allow the development of virtual classrooms or teleconference-based classes that do not require someone to be in one room. This is different from the losses obtained when using ICT, such as the occurrence of violations because the easier it is to access data, causing plagiarism people to commit fraud. In addition, efforts to use ICT must be maximized in various fields, especially in the field of education. Then, it can be seen that there are pros and cons in the use of technology in learning. Efforts that can be made to maximize the use of ICT are by doing positive and useful things. The following points need to be considered to realize the use of ICT in a useful and useful direction in life. In addition, technology users will be wiser in accessing the media used in the learning process.

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