



LITERATURE REVIEW: PENDIDIKAN TINGGI JARAK JAUH SEBAGAI MEDIA PENDIDIKAN ALTERNATIF DI INDONESIA

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ABSTRACT

Digital learning is one of the supporting factors of education distribution which is currently a major problem in Indonesia, this is also supported by Indonesia's geographical location as an archipelago with 13,487 islands and a population of around 265 million which causes constraints in Indonesia. Therefore, it takes digital learning media, namely distance learning (PTJJ) with e-Learning media. Students can access education in synchronous or online in the form of MOOC and LMS. It is expected that education can be spread evenly in Indonesia with educational content that can be adjusted for educators. and students. The research method used in this article is a traditional review. The first part of this article is an introduction, which is about the background of the problem. In the second part of the discussion, this section discusses distance education as an alternative education medium. Next in section three that discusses research conclusions and suggestions for further research. The purpose of this article is to analyze the problem and application of distance education using e-learning as an alternative media in Indonesia. Based on the results of the literature review, it is expected to help readers to be able to add information and be able to apply e-learning as an alternative in the field of distance education.

INTRODUCTION

The development of education towards the digital age in the 21st century today certainly requires educational strategies and learning media that support the concept of the 21st century partnership learning framework (BSNP, 2010), namely (1) Critical thinking skills and problem solving (critical-thinking and problem solving skills), (2) The ability to communicate and collaborate (communication and collaboration skills), (3) The ability to think critically and solve problems (critical thinking and problem solving skills), (4) The ability to communicate and cooperate (communication and collaboration skills), (5) The ability to create and update (Creativity and Innovation skills), (6) Literacy of information and communication technology (Information and communications Technology Literacy), (7) Contextual learning skills (contextual learning skills), (8) The ability of information and media literacy (information and media literacy skills) to support the competencies of students and educators.

Education towards the digital age certainly requires digital learning. Digital learning is learning that represents various educational strategies that are refined by technology and one form of renewal of learning media to support the concept of the 21st century partnership learning framework (Dylan Rodgers, 2017). Various media were finally developed to help learning activities including e-learning. E-learning is a combination of information, communication, and education which is a core element in a strategy to achieve success.

Higher education is part of the formal education level in Indonesia, according to Law No. 20 of 2003 (INDONESIA, 2003) Formal education is a structured and tiered education pathway consisting of basic education, secondary education, and higher education. According to data from the Higher Education Data Base (PDDIKTI) there are 3,276 tertiary institutions (PTD) and Private Higher Education (PTS) ("PDDIKTI SRV4: Higher Education Data

Base," 2018). But from the data, if we look at the distribution, it can be seen that higher education located on the island of Java is more than the other regions. If we highlight 1 region with the smallest number of higher educations is North Kalimantan Province with the number of PTN 0 and PTS 5, of course the data obtained can certainly be seen that higher education in Indonesia is certainly not evenly distributed. Therefore, it requires a Distance Education (PTJJ) or Higher Distance Education as a bridge for equitable distribution of higher education in Indonesia.

PTJJ in UU No. 20 of 2003 is education that students are separated from their educators and their learning uses various learning resources through communication, information, and other media technologies. Whereas in education distribution this requires an alternative media, one of which media can be used is e-learning. E-learning according to Waller and Wilson (2001) is a learning media that has been used since the 1970s, besides that e-learning is a combination of information, communication, education which is a core element in the strategy to achieve success. E-learning is internet-based learning so that we can learn wherever and whenever. E-learning is part of PTJJ in Indonesia or in foreign terms referred to as distance education. In the beginning PTJJ in Indonesia developed through radio facilities because in the period before independence to get education it was so difficult, it also caused many people in Indonesia to experience illiteracy. Radio was chosen as the most possible means at that time to disseminate education because of limited funds and personnel (Zukairi, 2004). The development of e-learning is welcomed by the people in Indonesia, such as e-learning applied by Emma Susanti and Muhammad Sholeh (2008), e-learning which is developed based on virtual web-based which aims to help learning because the existence of e-learning community has other alternative education by studying without having to come to school like conventional schools today.

The purpose of this literature review is expected to help readers to be able to add information about PTJJ and e-learning and can use it as an alternative media in the field of education.

RESULTS AND DISCUSSION

1. History of PTJJ in Indonesia

According to (Zukairi, 2004) the PTJJ began with the establishment of the Teacher Education Written Course Center (BKTPG) which was used as a center for the development of remote teacher upgrading with an independent learning system in 1950. In 1952 the government established Radio Siaran Pendidikan (RSP). RSP was established because of the need to organize education, especially for members of former student soldiers who, during the independence war, left school in Jakarta. However, this broadcasting system just ended after a concentration of education was held for former soldiers in Malang.

Since 1969 the RSP later functioned as a teacher education and training institution. This radio media was chosen because the media is able to reach more hearing populations over long distances with faster time. Experimental radio broadcasting programs have also been held to target elementary school teachers in Central Java for subjects in Indonesian, Social Sciences and Sound Arts during 1973-1976. The three subjects were taught remotely via radio to elementary school students in Yogyakarta. In the early 1980s, an Institute for Management and Development Management (LPPM) organized management courses or education with remote systems. Lessons given to course participants are delivered in writing (printed) with the modular system.

Universitas Terbuka (UT) was established by the government on September 4, 1984 as an institution of Distance Learning Higher Education (PTTJJ) with the mission of increasing public access to higher education and increasing teacher qualifications to the required level (Open, 2015).

2. The application of E-learning as PTJJ Media

In the development of PTJJ in Indonesia UT was born as the initial milestone for the presence of e-learning in Indonesia. The following is the e-learning display from UT which can be accessed via <https://elearning.ut.ac.id/>



Figure 1. UT E-learning interface display ("Elearning Open University," 2018)

Not only UT is participating in the development of e-learning in Indonesia, but there are also other universities that take part in PTJJ in Indonesia including Harvard, Bogor Institute of Technology (ITB), Gajah Mada University (UGM), Ten November Institute of Technology (ITS), University of Indonesia (UI) and Universitas Padjajaran (UNPAD) joined in IndonesiaX in 2015 (Nuridin, 2017).

The following is the display of the IndonesiaX interface which can be accessed via <https://www.indonesiex.co.id/>



Figure 2. IndonesiaX interface display ("IndonesiaX," 2015)

IndonesiaX is an e-learning with the concept of Massive Open Online Courses (MOOCs) with the Edx system that was applied for the first time in Indonesia with an unlimited number of students. In its application, the learning material available in IndonesiaX takes the form of one-way lecture video footage which is equipped with animation and also video scripts to facilitate students in understanding the material. The course held by IndonesiaX has a weekly assessment and final exam to find out the competencies of students with a minimum passing grade of 50% to get a certificate. If students want to get a certificate obtained from a course in IndonesiaX, students are required to pay an administration of Rp. 250,000. Certificates issued by IndonesiaX are valid certificates and signed by instructors and partner institutions and the IndonesianX.

Besides that, there are also several e-learning in the form of Learning Management System (LMS), among others, Indonesian Open and Integrated Online Learning SPADA-Indonesia aims to improve student learning access to quality courses from lecturers of State Universities (PTN) and Private Universities (PTS) throughout Indonesia which was officially launched on 15 October 2014 (Kemenristekdikti, 2017). SPADA - Indonesia was initiated by 5 universities, namely ITS, UGM, ITB, UI, Bina Nusantara University (BINUS) and 1 consortium of computer science colleges (APTİKOM).

In 2016 SPADA - Indonesia collaborated with 31 organizers from various universities in Indonesia, namely ITB, ISI, ITS, Pens, Polije, Polines, STIE Atma Bhakti, STMIK IBBI, STIK, STKom LSPR, STMIK Amikom, STP Trisakti, Unair, Binus, Udinus, Unida, UGM, UI, Unisba, Unila, Uhamka, Unismuh, UMY, UM, Unesa, UNY, Unpad, Unpak, UPH, UPI, Tel-U, and Unud. For the implementation of SPADA - Indonesia, the government is holding a grant of 40 million, for universities that will open courses at SPADA in 2017 which consists of development costs and implementation costs.

As a further development of the SPADA - INDONESIA 7 IN One government which is integrated with 7 universities in Indonesia namely Gorontalo University, Lambung Mangkurat University, Syiah Kuala University, Sam Ratulangi University, Surabaya State University, Tanjungpura University, Yogyakarta State University, the link can be accessed at <http://7in1.spada.ristekdikti.go.id/>. Here's the look of Spada Indonesia.



Figure 3. Spada interface display - Indonesia ("Spada Indonesia | 7In1," 2017)

The next interesting LMS is sqline which can be accessed via the <https://sqline.com/> link, which is an LMS that can be used as a learning media to facilitate students in learning 4 languages, namely English, Mandarin, Japanese and Indonesian using web and synchronized with the mobile application

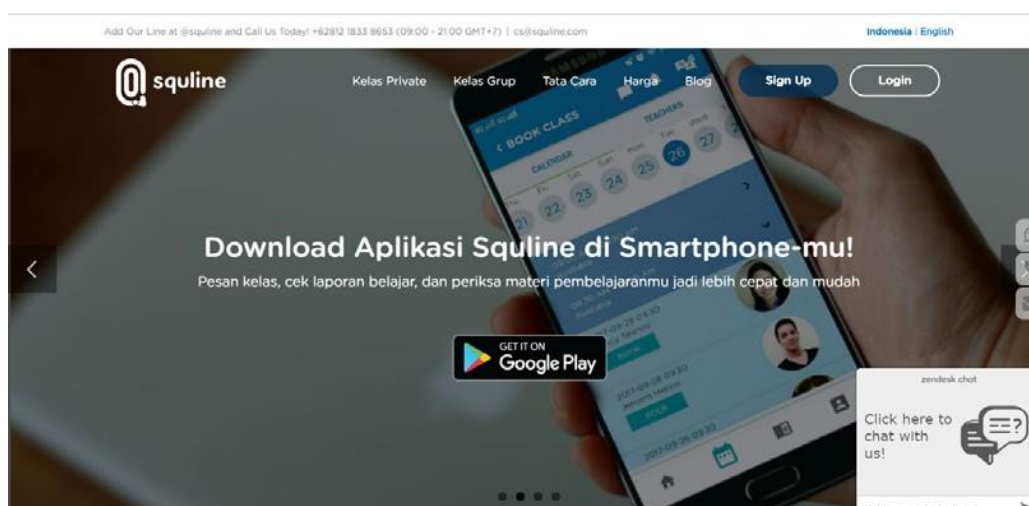


Figure 4. Display of sqline interface ("SquLine.com - Learning Language Online," 2018)

3. PTJJ Development Using E-learning Media in Schools – Schools

Some schools in Indonesia use e-learning as a learning complement media. One of them is the use of edmodo as one of the LMS that is widely used in Indonesia. According to (Basori, 2013) the use of edmodo caused a significant increase in the lecture / learning process besides that Edmodo was very supportive in managing Teaching and Learning Activities (KBM) with the appearance of edmodo which was very userfriendly so that it was easy to use.

4. PTJJ Development Problems Using Media E-learning as an Alternative Educational Media

Various factors can be a problem for the development of PTJJ by using e-learning as an Alternative Education Media namely Human Resources, Facilities and Infrastructure, and Implementation (Hendrastomo, 2008).

a) Human Resources

Mastery of technology is needed and must be mastered by individuals / people who will apply e-learning. Without the mastery of technology, especially computers and the internet, learning will become ineffective due to various obstacles that arise due to one's inability to use technology.

b) Supporting Facilities and Infrastructures E-learning

E-learning learning is absolutely dependent on the learning process in the availability of reliable infrastructure and good reliability. Because of the aspect of dependence on tools, the availability of infrastructure is also absolutely necessary. As expressed by Romi Satria Wahono, among others :

- i. E-learning infrastructure
E-learning infrastructure can be a personal computer (PC), computer networks, internet and multimedia equipment. This includes teleconference equipment when we provide synchronous learning services through teleconference.
- ii. E-learning system and application
Software systems that virtualize conventional teaching and learning processes. The software system is often referred to as LMS.
- iii. E-learning content
Content and teaching materials that exist in the e-learning system (learning management system). This content and teaching materials can be in the form of Multimedia based content or text based content, which can be stored in the LMS so that it can be stored in the LMS so that it can be run by students anytime and anywhere.

c) Implementation of E-learning learning

The application of e-learning according to (Hendrastomo, 2008) is divided into 3 things, namely :

1. Supplements

It is said as a supplement (additional) if students have the freedom of choice, whether or not to use electronic learning material. In this case there is no obligation or obligation for students to access electronic learning material. Even though it is an option, students who use it will certainly have additional knowledge and insight.

2. Complement

It is said to be a complement (complement) if electronic learning material is programmed to complement the learning material that students receive in the classroom (Lewis, 2002). Learning material is said to be an enrichment, if students who can quickly master / understand the subject matter delivered by teachers face-to-face (fast learners) are given the opportunity to access electronic learning materials that are specifically developed for them. The goal is to further strengthen the level of mastery of students on the subject matter presented by the teacher in the classroom. It is said as a remedial program if students who have difficulty understanding the subject matter presented by teachers face-to-face in slow learners are given the opportunity to utilize electronic learning material that is specifically designed for them. The goal is for students to be easier to understand the subject matter delivered by teachers in class.

3. Substitution

According to (Wahono, 2008) the method of delivering teaching materials in e-learning is 2, namely :

1. Synchronous e – learning

Teachers and students in the same class and time, although in different places, are examples of the use of teleconference. For example, my students at the asphalt university attended classes through teleconference with professors at Stanford University, this is called Synchronous e-learning. The problem is that it requires a large bandwidth and expensive costs.

2. Asynchronous e – learning

Teachers and students in the same class (virtual class) even in different places and times. This is where the role of the e-learning system (application) is needed in the form of LMS and content both based on text and multimedia. Systems and content are available 24 hours non-stop on the Internet. Teachers and students can carry out the learning process wherever and whenever.

CONCLUSION

1. Conclusions from the results of this literature review include:

- a. E-learning can be used as an alternative learning media in the PTJJ to help equitable education in Indonesia.
- b. E-learning can be used as an alternative media that acts as a complementary media of learning, meaning that e-learning is used to supplement learning material of students in the classroom. E-learning can also be used as a supplement media, e-learning is used as an additional medium without the obligation for students to access the material. So it is only to increase knowledge. But in Indonesia, e-learning is not only used as a companion media for learning in the classroom, with the presence of several e-learning like Indonesia-X, Spada Indonesia, Open e-learning and other e-learning that have positive impact on students. study in these courses without having to spend a lot of money, time and energy like a conventional class.

2. Suggestion

The use of e-learning as an alternative learning media in the PTJJ has several obstacles such as human resources, infrastructure and implementation of its use. With this, before using e-learning, the government and educators should be able to prepare qualified human resources in advance such as conducting training using e-learning, workshops or seminars. In addition to infrastructure facilities educators and the government should be able to work together to develop in the field of facilities including server use, online class maintenance or the purchase of tools that support the PTJJ system, so that the PTJJ can be truly utilized by the community. Whereas from its implementation, e-learning is not yet well known in Indonesia, of course there needs to be a further introduction of the government and educators so that people can use the e-learning provided as best as possible especially in areas that need education but are difficult to access conventional.

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