Media learning of dongle during covid-19 pandemic

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Abstract. The objective of study was to analyse the application of learning media through the dongle during Covid-19 pandemic this year. This research method conducted qualitative. Population were all fourth semester students of English Language Education, Faculty of Teacher Training and Education in the even semester of the 2019/2020 years, with a total population of 136 students. Sample were 32 students 4th semester of the English education. The development of science and technology shifts the paradigm of conventional learning towards innovative learning models. Now, students need learning media using dongles in the class that can ease learning by carrying out activities systematically, where they have to explain, presentation, find references easily. They have not been able to properly use a smartphone that actually affects their learning motivation. In fact, the presentation of student assignments through the dongle will likely be highly innovative. It is the learning media that functions to direct students to obtain a variety of learning experiences during covid-19 pandemic that are determined by student interaction with the media. Making it easier for them to apply learning media by using a smart phone through the dongle.

1. Introduction

During the Covid-19 pandemic, there were days of learning to start life without doing activities outside the home, lack of economy, lack of transferring knowledge, lack of religious study, and lack of healthy life. At this time, people learn from the internet via YouTube, Facebook, Instagram, Twitter, or WhatsApp groups. To improve their knowledge, and will do live broadcasts via YouTube live, Facebook live, Instagram live, WhatsApp video calls, conference meeting zoom, WebEx and other video conferences. Learning does not have to wait for the teacher to come to teach, or gain knowledge that is phenomenal, but learning from Covid-19 requires us to keep learning from where, what is obtained, anytime and with whom to learn. Why learn from Covid-19? Mendikbud (Minister of Education and Culture) namely Nadiem on Hardiknas (National Education Day) 2020 said "This is a crisis, where parents, teachers and students need each other. Parents apparently need a teacher, because they know how difficult it is to be a teacher when teaching their children at home. Likewise, the teacher, the role of parents is needed to maximize and effectiveness in teaching online. "Learning from Covid-19 is a crisis of knowledge, some parents have to learn again to teach their children at home. Some teachers must try to transfer knowledge in order to achieve learning through the internet. Teachers and parents are not necessarily adept at using technology tools, because online learning from home is the first time in Indonesia at the time of Covid-19 Pandemic. This is not only happening in schools, but in universities in Indonesia.

The spread of Corona Virus infection (COVID-19) has not only an impact on the health and global economy, but also Education in schools and Campus. The United Nations Educational, Scientific and Cultural Organization (UNESCO) notes, covid-19 has an impact on the education of around 290.5 million students worldwide. This incident will make a bad thing in learning in the world of education. Learning must be achieved in an unusual way. Teachers are required to teach spontaneously using the internet.

This condition was conveyed by Audrey Azoulay as UNESCO' Director General said, children and adolescents tended to be most affected by the closure of schools. UNESCO noted, until March 4, 22 countries had announced the closure of temporary schools to prevent the spread of covid-19. Although it is temporary, school closure results in reduced teaching time and can have an impact on achievement. Learning is done at home using applications and platforms, to support the achievement of learning and also carry out semester examinations from home. The use of smart phone devices in learning, this can facilitate teaching and learning activities can be conveyed simply. Mobile learning is easy in providing learning content that will be done by students. They understand the content given by the teacher, then do the tasks using electronics, such as laptops, cameras, smart phones, and video recordings.

In the world of education, it provides an opportunity to prepare and change old conventional habits to specific skills by using technology quickly. The concept of learning in higher education also expects to be able to produce highly competitive graduates. A good learning system is able to provide learning experiences to students to unlock their potential in internalizing knowledge, skills and attitudes as well as learning experiences. Sutrisno (2016: 22) explained that KKNI (Indonesian National Qualification Framework) is a competency qualification gap framework that can juxtapose, equalize and integrate work education and training and work experience. Thus, higher education can provide graduates to be able to work with quality, and lead graduates to have independent work oriented to graduates with entrepreneurial spirit, then when they graduate, they can open their own jobs.

Permendikbud (Minister of Education and Culture Regulation) No. 49 of 2014 concerning National Standards of Higher Education, has required that learning systems in tertiary institutions based on learning outcomes, and the learning process has characteristics that reflect the nature of interactive, holistic, integrative, scientific, contextual, thematic, effective, collaborative, problem-based learning and centred to students. Education should be able to realize student-centred learning so that learning becomes meaningful for students. According to Sutrisno (2016: 92) that the material mentioned in KKNI on the qualification of Degree (Strata I) was able to master the application of software, learning technology, so that they could act as academics and professionals in solving problems.

The development of science and technology shifts the conventional learning paradigm towards innovative learning models. The presence of learning media according to Nizwardi (2016: 2) can function to direct students in obtaining a variety of learning experiences that are determined by student interaction with the media. Thus, making it easier for students to use learning media using smartphones via the HDMI dongle.

Nowadays, the ease that is obtained by students for the needs of learning media by using a smart phone via the HDMI dongle can ease learning by carrying out systematic activities, where they have to explain, explain, and easily search for scientific papers. They are not able to really use a smartphone that actually increases their motivation to learn, they only use social media and devices on their phones. They still use laptops that can explain their tasks by avoiding the help of other friends. In fact, the accumulation of student assignments through the dongle will likely be highly innovative. According to Agust (2015) the mention by the name 'Dongle' is more famous than the terminology or other name used by the maker or provider of the tool. In the study published according to Agus (2016) presents the use of dongles when giving subjects in class. Not only on presentation but the dongle can also be used by using it as a media learning to deliver subject matter.

Media

Media means from Arabic is *wasaaila* means medium or delivery (Rudi: 9, 2017) from Latin is a *medius* that is between delivering (Nizwardi: 2, 2016) messages from sender to recipient. Being according to Cepy (9; 2012) describes a process that will occur if there is communication between the recipient of the message with the source / channel of the message through the media. That it is explained that the media means instruments that can bring information or learning material brought by teachers from a learning source to learners.

Whereas multimedia is from a word *multi* which is more than two or many, multimedia is the transmission of data and manipulation of all forms of information in the form of words, images, videos, music, numbers or handwriting where in the computer world the information is processed into forms digital data (Darma: 2009). According to him the benefits of multimedia are;

1. Teaching media, teachers can provide learning by using picture and video media to make them more interesting in the teaching and learning process.
2. media presentations, students or lecturers can use several forms of media and media tools by displaying text and images, either through a computer or smartphone using dongle.
3. Game media, is a tool used to add other media devices to playing activities such as in real life, for example; driving simulation game is one of the popular video game genres, because it gives players the experience to drive like a real driver.
4. Office media, there are some offices that require additional media to increase employee activities as users of regulations in the office, such as computers with print finger devices for employee attendance.

There is a lot of computer media moving into learning using networks. In the beginning, ICT (Information Communications Technology) was used as material to search for information, but evolved along with globalization, teaching and learning process turned into computer-based learning. The more humans want to know, then computer-based learning must use networks. This learning is called internet learning which is used with several technological tools, which turn to e-learning, then switch to mobile learning and during covid-19 pandemic many students who study at home using distance learning, to facilitate the use of network-based computers the expected use of the HDMI Dongle can interact between teachers and students like in the classroom. Figure .1 below is about a transition in the learning model using by HDMI Dongle.
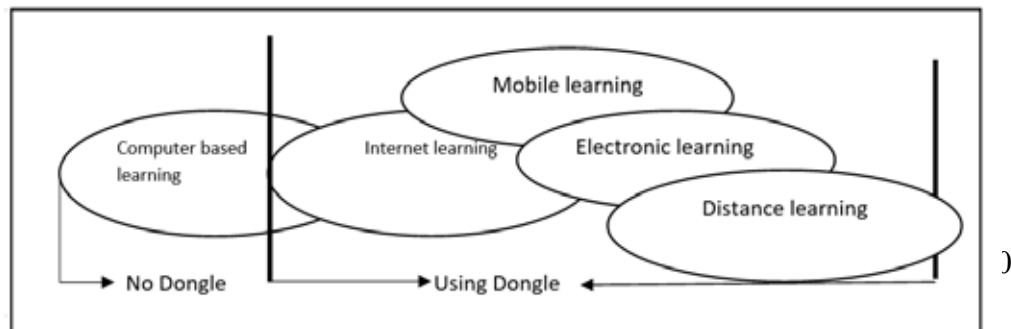

Figure.1 Learning Model using by HDMI Dongle

Internet Learning

Internet learning is internet based is learning that uses internet facilities that are online as its main instrument. That is, having the perception that e-learning must use the internet that is online, i.e. computer facilities that are connected to the internet. This means that learners in accessing learning material are not limited to distance, space and time, bias anywhere and anytime (anywhere and anytime).

Electronic Learning

E-Learning is a transformation teaching-learning process in the classroom with using technology on the internet network. Technology that is used with speed and unlimited place and time to access information. Learning activities are easier for students to do anytime anywhere and felt safe for the student. Definition of e-learning can be interpreted teaching and learning that uses electronic circuits (LAN, WAN, or internet) to send a series of teaching and learning percentages which can increase knowledge and skills, and formulating, organizing, making learning experiences possibly want to know learned.

In the use of e-learning that must be considered on pedagogical principles;

a) Institutional support; present the principle of support from campus to provide internet facilities
b) Course development; develop teaching materials by using service management through e-learning program
c) Teaching and learning; make teaching and learning with the support of technology media
d) Course structure; Schedule arrangement of subjects' support using services management through the web
e) Students support; able students and teachers using a web network system that is done on e-learning programs
f) Faculty support; classroom and learning environment supports a wide internet network.
g) Evaluation and assessment; give assignments and assessment via the available web.

Mobile Learning

Mobile devices are now widely used by students. Also, during covid-19 pandemic period many students used mobile or smartphone as a support tool to communicate between students and teachers. Different ways of learning such as face-to-face, interacting directly in class become changed because of covid-19 pandemic, this learning is called mobile learning. It is learning that uses mobile devices such as PDAs, mobile phones, laptops and other information technology equipment for learning (Zeny, 2018), is an alternative development of learning media and has practical characteristics and can be taken anywhere. Gufron (2017) also explains that mobile learning is a media that is produced not only monotonously with text, but also contains many elements of audio / visual multimedia and even animation that can facilitate students in understanding learning material.

Technology makes the personalized learning agenda achievable, manageable. The theory can describe in mobile learning that, the learner identified the benefits of mobile learning as empowering for the learner because they can:

1) To access when they want, means student who facilitate and monitor peer activities to allow students to assess and aid each other informally, they can share their learning in home by mobile learning.
2) Have fun with their learning, means collaborative learning environments that students create to document and assess their own learning, they can share message or video call for fun learn in outside school.

The purpose of learning and teaching is expected of the changes in student behaviour. Teaching and learning process by using the right strategy, it is expected the results obtained in teaching and learning to satisfy both educators and students. Strategy by selecting the media are as teaching tools will make it easier for students to absorb knowledge and assist teachers in teaching in the classroom.

Mobile learning provides interesting contexts and new affordances for the design and implementation of games. The location, mobility and the inter-player communication capacity of the devices all contribute to innovative possibilities for game and play designs. There has been an increased interest in the educational use of computer games. Thus, by structuring learning in play, we are allowing engagement in fantasy and actions that would otherwise be impossible. By using mobile technology and game-attributes there is a major reconnection with the games and play that have featured as human learning over the eons to the concepts and methods of computer game play of today.

Assessment tools selected media is something that required a tool for an educator or teacher who is transferred to the delivery of material can be applied as appropriate, and the purpose of teaching or education of the teaching-learning process that is expected to be achieved well. Use of media tools will assist teachers in implementing curriculum content that will be taught to students. Thus, students are fun to learn lessons that will be provided by educators.

3) Choose content to learn, means the use of online mobile learning for assessments that extend beyond quizzes to simulation exercises, virtual labs, and other automated assessments of active student learning, they can video call or receiving message their study from a teacher as long distance in school.

Distance Learning

During covid-19 pandemic, students who were accustomed to learning on campus were sent back to their respective villages, the learning process that took place before covid-19 pandemic was conducted using the internet in the classroom, but distance learning had made students have to study at home making the learning process become evolved, because internet learning can still be done in the classroom and become transformed into distance learning during covid-19 pandemic. Distance Learning is an organized educational process in bridging the separation between students and educators using mediation by the use of technology.

Dongle Application

Dongle is a hardware device with a USB interface that functions to encrypt (generate encryption codes). The dongle was first discovered in the early 1980s. Its special function is to protect copyright or licenses on software. Why do you have to use a dongle device? On the blog page Riandiarsono (2015) explains the reason for the use of Dongle is a consideration of software piracy and increasingly high criminality committed by hackers, therefore software developers or software developers use Dongle.

HDMI dongle device is a Wi-Fi receiver device in the form of an HDMI dongle, where the function can connect Android tab gadgets, iPad / iPhone / smartphone and laptop via a Wi-Fi connection to be able to share pictures, videos and music or the type of mirror screen on your gadget to the big screen. Figure .2 is about use Dongle connected to advice.

Figures 2. Wi-Fi Dongle

How to connect the dongle application

1. Make sure there is an active Wi-Fi connection
2. Turn on the Receiver (micro USB connector) and install the Wi-Fi Dongle
3. Insert the HDMI connector
4. Connect the USB connector and micro USB connector so you can enjoy the display

Dongle media is useful for conveying learning material.

2. Method

This research was conducted using qualitative research methods. This is because to illustrate the analysis of the learning media application process using a smartphone via the HDMI dongle, the researcher explains in detail the learning process that is taking place. According to Sugiyono (2012: 117) the population is a generalization area consisting of: objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn. This study uses all fourth semester students of English Language Education, Faculty of Teacher Training and Education in the even semester of the 2019/2020 school year as a population, with a total population of 136 students.

The sample used was 32 students in class IV B in the Curriculum Design Material course in the 2019/2020 school year because researchers found it easy to get data from the teaching research class, this was called purposive sampling (Indra: 2019).

Data collection technique is an activity used to obtain data or materials needed in research. Data collection techniques used in this study are the method of documentation and observation.

The documentation method used in this study is the documentation of photographs during the learning process.

This observation method is used to obtain data about how the role of media with observation sheets made by researchers.

3. Result and Discussion

During the implementation, students were given a group assignment, namely writing scientific papers. Some of them have really understood, and some of them still ask questions about the draft of writing scientific papers. The lecturer reminded that the students' assignments were not to be published, but they understood and were able to write scientific papers well, so that later they would be able to write independently. After a few days in the third weeks, dated on January 28, 2020, students collect assignments that have been completed in writing scientific papers. The lecturer examines group assignments, and starts correcting, revising and correcting correctly.

Presentation activities started by the first group. The lecturer ordered to download "smart view" or "screen mirroring" on the Android smartphone for each group, so that it supports the use of the HDMI Dongle used at the time of presentation. They started downloading, look at the picture below;

Figure 3. Application to download Screen Mirroring 2020

After selecting an application on android then download Screen Mirroring 2020, then select "install" on the smartphone so that the HDMI Dongle can be used. Or Samsung Smartphone users can use "smart view" and can connect to the HDMI Dongle directly. Then, the choice of cable is connected to the screen of the infocus-projector or television. Then seen in the picture below;

Figure 4. Student connected HDMI Dongle

Smartphone' screen requests an option to connect the HDMI Dongle and Smartphone. And the use of dongles can be used as a learning media for student presentations. Like the picture of a student doing a group presentation in front of the class.

Figure 5. Student presentations in front of class

Students are active in class to do a presentation in front of the class, because they do learn activities to study group assignments together. According to Sinar (2018) that active learning is an active student in conducting class activities, students are able to understand and develop the knowledge they are learning, also able to express it in real life. Students who make presentations using tools as learning media via the HDMI Dongle can play a direct role in explaining, discussing, and explaining their writing in front of the class. Without an awkward attitude, not laughing at other friends, and mutually support a group of friends. This can be seen from the principles in active learning, including;

(1) Learning can occur in the process of experiencing
(2) Learning is an active transaction
(3) Active learning is an essential activity, so it strives to achieve goals and present for personal needs.
(4) Learning occurs through a process of obstacles, so as to reach a solution.
(5) Through the problem of encouraging active learning so that it appears on the motivation to learn
(6) Through learning activities will appear on experience

After the emergence of Covid-19 Pandemic students worked on assignments and face-to-face between lecturers and students at their respective homes through zoom cloud meeting application on March. The lecturer does the task indirectly, but through the smartphone of each student. Covid 19 Pandemic did not break the enthusiasm of student learning, because they also tried to stay active learning and complete their assignments. Lecturers also carry out learning activities at home using the HDMI Dongle as learning media, as shown below;

Figure 6. Doing presentation using by HDMI Dongle

The picture above is circled in red are devices that support HDMI Dongle can be connected between a smartphone and a television. The lecturer has made a presentation using HDMI Dongle with the support of a smartphone and television at home. When doing the learning process, the lecturer has a role in helping students to access information, motivate, and process lectures during covid 19 pandemic. According to Sutrisno (2016: 153) that practitioners explain, in the learning process based on Student Centered Learning, lecturers have important roles, including;

(1) The lecturer as an inspiration, motivator, and facilitator in the learning process
(2) The lecturer as the holder of the role of control of learning outcomes that must be achieved by students at the end of the lecture.
(3) Lecturers as designers of learning strategies can provide a variety of learning experiences for the achievement of subject competencies.
(4) Lecturers are able to help students access information, organize, and process data to be used in solving problems of daily life.
(5) Lecturers are able to identify and determine the assessment patterns of student learning outcomes that are relevant to the learning outcomes that will be measured.

Lecturers and students are interconnected, in order to achieve learning competence in the ongoing course. So, at the time of Covid-19 pandemic, students were also required to understand the achievement of learning competencies, mastering the learning media offered by lecturers. They must listen, read, write, discuss, and be involved in problem solving in writing scientific papers.

4. Conclusions

The use of HDMI Dongles during the covid19 pandemic can also be done at home, not just in the classroom. This is proven HDMI Dongle supports all devices such as smartphones, iPhones, Laptops, computers, Tablets, Television, and others. Its use can also be used as a learning media for presentations, video conferences, video games. Students can easily make presentations using the Dongle in front of the class. The use of dongles can be used during the Covid-19 pandemic directly at home. Presentation of student assignments through the dongle will be highly innovative. It is the learning media that functions to direct students to obtain a variety of learning experiences during covid-19 pandemic, they can interaction using by innovation device between media and Dongle. Making it easier for them to apply learning media by using a smart phone through the dongle.

5. Acknowledgment

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