Interactive Online Learning Media during Covid-19 Pandemic

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ABSTRACT

Covid-19 pandemic has spread all over the world including Indonesia which is directly or indirectly has affected all aspects of life and one of the aspects is education. The Ministry of Education and Culture has been replaced the face to face system of learning process to online learning as a new system of learning process for educators and students as a response to the effect of Covid-19 pandemic. It forced educators and students to adapt to a new learning system by using technology devices to support the online instructional process. In order to gain students' interest and understanding, educators need to implement interactive media to support their online learning process. Some researchers have conducted some research regarding to the online learning media to support the online learning process. This study proposed five interactive online learning media through library research. The media are video, Microsoft teams, *edmodo*, youtube and goggle meet. We collected several previous studies that examine the media used in online learning process and describe the procedure of implementation of the media to make the online learning process become more interactive. This media can be used by educators to make the material understandable by the students.
Keywords: Interactive, Online Learning, Media, Covid-19 Pandemic

A. Introduction

At the beginning of 2020, Indonesia was shocking by the appearance of Corona Virus. It is a kind of virus that influenced all aspects of life. Everyone should change their way to live to survive from the virus. Corona virus make all of activities done face to face has to stop (Suriyani Djamdjuri and Kamilah 2020). The government applied policy to stop the spread of Corona Virus and to reduce the number of deaths caused by Corona Virus. One of the policies is by forbidding any activities that involved many people meeting in one places. This policy give big impact to the education field in Indonesia included the changes of learning system. The government through the Ministry of education and culture forbid students to come to school to conduct face to face learning process. They design different learning system to make the learning process keep continue by proposing online learning.

The implementation of online learning was not easy for educators and students because they need to deal with technology to transfer the knowledge to the

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students. The implementation of online learning cannot be separated with technology

(Hanifah Salsabila et al. 2020). The educators are forced to give a big effort and make some changes on the learning process to make all the learning process run well. They should change their learning style, learning strategy and learning method (Sutrisno and Afsari 2020). They need to design appropriate interactive online learning media to make the students understand the material. Online learning has its obstacles in its implementation. First, online learning is a new learning system in education in Indonesia, especially at the primary and secondary levels. Second, most teachers usually conducted the learning process face to face that makes them are not familiar with learning media in online learning context, so they face difficulties in using them. Third, some educators and students have limited internet quota and some areas have unstable internet network (Suryandari and Singgih 2021) We proposed five kinds of interactive online learning media that can be used by the educators to ease the teachers in delivering the material to achieve the learning objectives.

B. Interactive Online Learning Media

Online learning as a response to Covid 19 pandemic is a routine activities done by teachers and students without face to face interaction in learning process. To support the learning process, the students have to deal with technology by using laptop and smart phone and it also supported by internet access (Simanjuntak et al. 2021). it means that every learning process can be changed based on the situation (Simanjuntak et al. 2021). This new concept is unfamiliar and difficult for some teachers and students. Teachers find it difficult to deliver the message of the material to be understood by the students and students mostly find it difficult to understand the material especially for some materials that need deep explanation from the teachers furthermore some learning goals are not achieved. To avoid those kinds of problem, the teachers have to use appropriate learning media in online learning process and those media must be interactive. Interactive online learning media are designed to make the students easy to understand the material, they can learn independently through various activities to achieved expected competencies (Liliana et al. 2020)(Riyanto and Yunani 2020). Some of them are video, YouTube, Microsoft teams, Edmodo and Google meet.

1. Video

Video is one of learning media used by teachers to stimulate the feelings, thoughts and desires of students by presenting ideas, messages and information about the material in audio visual to achieve learning goals (Wisada, 2019). The learning process that use video as learning media makes it possible to exchange information through pictures and images, digital sound, and animation (Ronvhetti,2010).Students can understand the material easily through video if the teacher creates an interactive video. As stated by Rabiman et al. (2021) video as an interactive learning tool can create a strong understanding because it touches several sense simultaneously and we can use internet to send the video to the students, but in some areas that have problem with internet connection, the teacher can copy the video by using flash disc or DVD and delivered to the students.

Video as an interactive learning media has some benefits: (1) it can gain students' motivation to learn; (2) the students will get clearer meaning of the message so that the students can understand the material and achieve learning

goals (Sudjana and Rivai, 1992). The use of media can stimulate students' motivation to learn because there is a sense of students' desire about the videos shown so that they can improve their understanding to the material (Kirana,2016).

There are some ways to make the video interactive according to Palaigeorgiou, Papadopoulou, and Kazanidis (2019):

1. Avoid heavily annotated video.
   Teachers should avoid adding any information which has no correlation with their video, which may be interesting but doesn't contribute to the learning objectives.
2. Set fixed positions for the annotations.
   The location of annotation should be decided by the teachers to make the students focus on the video itself.
3. Let users decide if they want side content.
   Students tend to split their attention between the video and the synchronized side contents, and, hence, cognitive overload may be provoked. It is crucial to provide users with the possibility to decide whether side content should be displayed smaller, larger, or not at all.
4. Use pre-adjunct questions.
   Pre-adjunct questions are designed to stimulate students' attention and motivation to make them more focus on specific information of the learning material.
5. Create reflective pauses.
   When video pauses and urges students to think about their choices, they reflect on how they performed a task and deepen their understanding. Students expect that their thoughts will have some relation with what will follow in the video.
6. Induce information recall.
   Post-adjunct questions (at the end of a video or a video segment) reinforce the presented knowledge and encourage learners to build explanations and expectations that go beyond the learning material. Use either memorization (recognition or recall) questions or application questions. A non-automatic video summarization activity may also be considered as a post-adjunct reflection action.
7. Provoke predictions.
   Use questions while a video is playing and give learners the opportunity to predict what is going to happen next. A challenge to predict the next event or effect, guide viewers to expose their misconceptions and evaluate their understanding. Video, as mentioned earlier, has the advantage that it is perceived as a trustworthy source of information by students.
8. Provide formative as well as summative assessment.
   Informal quizzes and questionnaires can be included in specific points of the video and may provide meaningful feedback that guides students focus and next navigational choices
9. Give feedback to students' answers.
   Feedback is essential for providing the necessary scaffolding to learners and close the gap between current and desired performance
10. Allow your learners define the development of the video story.
    When designing a video, it is essential to allow a second-layer navigation, especially when the video is too long. With second-layer navigation [21], viewers can jump to specific scenes in the table of contents or the

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graph

structure. With branching, instructors can offer multipath videos for their students. Second-layer navigation demands an excellent design, production, and structuring of the video content in order to be feasible to offer a unified learning experience.

11. Encourage Replays.

Teachers should include enough triggers to make learners want to watch the video again. Repeating an interactive video helps reinforcing its contents.

12. Track Interactions.

Students' video behavior should be tracked and reported back so that an instructor can identify learners who are struggling with specific interactions Recording and understanding interactive video analytics is a decisive part of designing successful interactions. Metrics will help interactive video developers to understand their learning audience and optimize the interactivity options.

2. Microsoft Teams

Microsoft teams is one of learning media to support interactive learning. *Microsoft Teams* is a platform created by Microsoft to convenient virtual communication directly or gadget every time and everywhere with high quality video (Herminingsih, 2021). Microsoft Teams integrated to Microsoft Office 365, which is *Microsoft Office 365* facilitated user to access email, contact, tab, laptop, or Smart Phone (Mu'ti, n.d.). *Microsoft Office 365* also can be obtained easily by downloading the application on Google page.

Microsoft Office 365 provide tools to utilize for study on the online class room. The tool is *Form, Calendar, Sway, Power Point, Word, Excel, Teams, Class Notebook* and *One Drive*. These tools can use as needed for class and matery study. Function of several tool which is often used that is :

No	Tool	Function	Action
1	*Teams*	Colaborated team at *Office 365* to integrated people, containt, and tool as a team needed to involve in the same time and place	Maked Class
2	*Forms*	Make a survey, quis and opinion polls instantly and share to any body (even respondence can acces by smarth phone) and the result be easy to acces for real time.	List to attendees, Online text test
3	*Calendar*	Made automatic reminder and to do list	Meet with the student
4	*Power Point*	Made presentation in form of text, picture, video, etc.	Describe Containt
5	*One Drive*	To save a file of teacher in one place it available to share to any person an could be acces from gadged that conected to internet	Describe Containt

(Mu'ti, n.d.)

To use *Microsoft Teams App*, it should installed in the computer or smart phone the following is many steps to make team in *Microsoft Teams App*(Maufiroh et al., 2021) :

1) Download the apps from official pages of *Microsoft*
2) If it done, click tool *Microsoft Teams* to enter
3) On the ranks tools at the left, click tool *Teams*. Next click to choose "*Join aTeam*" or "*Create New Team*"
4) Click *"Create New Team"* to make a new team
5) To add a member of the team use email address of member
6) Click *Manage Channel* to announce a team according to the subject, click simbol *Plus* and put name and description
7) Click menu *Standard* for everyone seen the channel

Next step in implementation *Microsoft Teams App*, that is :
1. To *Login*, enter your account or other account it use before
2. Login with account which has been *Sign Up* to *Microsoft*, than enter your password account
3. If ever login by that account, just *Sign In* automatically without entering password
4. Next list of subject available, then click "*Teams*" to start meeting or conversation
5. Click "*Assignment*" to look the task
6. To collect the task, click *"Attach Task"*
7. To upload the task to collect, click *"Upload"* than we can choose a document
8. Next click *"Collect"*
9. Click menu "*Assignment*" to check task from all channel or topic, for control what kind task has not complete
10. After task collected, text appears *"No More Task to Collect"*

According to Siahaan (Maufiroh et al., 2021)Microsoft Teams in implementation support by behavior and mentality of teacher, ability student and media. Study online with Microsoft Teams media very helpful the teacher cause they can make an interaction like face to face in the classroom. With share screen mode which allow teacher to see all the student, like wire the student can watch and see their class mate and the teacher of course the presentation subject be packages by entertaining the student it include by video, power point, file subject or assigned task by the teacher. Student easily can check and control the task at the "Assignment" menu.

Beside support, there is also an obstacle in Microsoft Teams implementation that is internet networking. Bad internet network made user auto login and logout it make student missed the subject.

Microsoft Teams as a media study online interactive marked by several things:

1. Increased interest of student for subject learning. This is indicated by the presence of respond from student to subject by teacher. The result of the research (Situmorang, 2021). Shows that over all student interest to subject it use Microsoft teams is in a very good attention has been reached for subject by online study(Rakhmawati & Sulistianingsih, n.d.). It basically because student easily to access Microsoft teams,and many option and available figure, this made student comfort and more active(Nafisah & Fitrayati, 2021). Student interested to following and join it also be measured by happiness when they joint and use Microsoft teams because they can access easily, good feature, easy to grasp the subject,

finis the task by on time, easy to save and reach a document of subject and internet quota is cheap enough, it make student focus and enthusiastic to study (Rais & Herdiawal, n.d.).

2. Good communication from every single aspect of learning. Learning by Microsoft teams accelerate communication between teacher and student, teacher presentation the subject by virtual trough share screen and make it clear by meeting(Rakhmawati & Sulistianingsih, n.d.). The advantage provided by Microsoft teams app which is to provide convenience for teacher to teach so as can be accept by the student(Ifada & Muhammad, 2021). Along with other research (Pradja & Baist, 2019)study online process it use Microsoft teams also avoid self study, all element involved, easy information, easy evaluation and control the student task progress.

3. Learning media is useful for stimulating the process of thinking, feeling, paying attention and interest of students so that there is a process of interaction between teachers and students effectively and efficiently (Allolayuk, 2018). By using Microsoft teams the knowledge of student has increased cause there is any feature to support knowledge and grasping student. As file place for student, there is assignment menu to collect task and evaluation reaction in good action(Rakhmawati & Sulistianingsih, n.d.).

3. YouTube

YouTube as one of the most popular application nowadays is also can be one of learning media. Teachers use YouTube as one of their learning media because it is the most accessible media (Simanjuntak et al. 2021). Teachers can use various types of interesting material provides in YouTube to gain students' interest and understanding. Besides, teacher can use their YouTube channel to upload their own video to be access easily by students. There is no limitation of space and time of YouTube in sharing video. Those situation makes YouTube become an attractive, effective, motivated media for students during the online learning process(Simanjuntak et al. 2021).

YouTube is very good for teachers to use as a medium for sharing learning, besides it is easy to use, this application is an application that is very popular with all people from children to adults, especially in Indonesia itself according to the We Are Social survey that was launched by katadata.co.id in 2019 youtube media has the most users with a percentage of 88% of the total 150 million social media users in Indonesia (Riyanto 2019), besides the use of this learning media will certainly help the effectiveness of the learning process and delivery of messages and learning content at that time (Wiratmojo&Sasonohardjo 2002)

The change of learning system to online learning is also change the responsibility of parents because the students need parents' guidance in doing their task and understanding the material especially for the kindergarten and elementary students.

4. Google Meet

Indonesia is facing quite drastic changes in early 2020 until now, so that having the influence of the COVID-19 pandemic on all aspects of life, especially in the world of education is the most basic need for developing the quality of a nation (Tobondo, 2021). To push ahead the development of the quality of a nation, it is

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necessary to make significant changes in the implementation of learning. Starting from the online implementation process which is better known as e-learning or online (on the network), this requires every educational institution and organization to participate in paying attention to the needs of the learning implementation process. It is no stranger that every organization today has used various technologies from the simplest to the most sophisticated (Putra, 2018). Thus, every educator and student at the elementary to high school level must master learning techniques boldly.

One of the most supportive software for implementing bold learning is Google Meet, which is an application that can bring together educators and students online, this software is very popular today, while the advantages and disadvantages of Google Meet are as follows:

1. Free
    Every user who is integrated with facilities from Google, can use this application for free, with the provision of time that can be used for meetings for 60 minutes with an allocation of 100 participants.
2. Can be used on all devices
    Each user is facilitated with easy access on all devices, can be used via personal computers, laptops/notebooks/netbooks, mobile phones using iOS and Android operating systems.
3. Easy registration process
    Every mobile user who uses Google facilities, in this case a Google account, can easily register in less than 2 minutes.
4. Simple display
    If the user has downloaded it, it will be treated to a display that makes it easy for the user, so that users who are not very understand about technology will easily adapt to this software.
5. Light app
    Only with a size of 55.37 mega bytes, users can already use this software

In addition to the advantages that have been described previously, of course Google Meet has several weaknesses, including the following:

1. Paid
    In addition to the features offered for free, this application also has paid facilities, especially for users who want usage time of more than 1 hour and allocation of participants above 100 people. The price offered starts from 8 USD
2. Using a Smart phone
    For users who do not have a smart phone or smart phone, it is certain that they cannot have access to use this software
3. Availability of internet network
    In using this application, of course, it is supported by adequate internet facilities, if the user does not have internet access, then it is certain that he cannot usethis software.

Google Meet is one of the best solutions for educators and students in carrying out online learning, because the simplicity of this software can make it easier for users who do not understand the use of technology to adapt quickly, so that the learning implementation process will take place according to the learning curriculum.

5. Edmodo

One form of learning media that is in accordance with the development of internet technology is Edmodo media (Wardono , et al. 2018). Edmodo is a Social Learning Network (SLN) with social elements similar to Facebook whose main functions are sharing learning resources, interacting and communicating between lecturers and students as well as between students, and evaluating online learning (Larassati, 2020). The teacher and students will feel safer and easier to make communication and collaboration, share content in the form of text, images, links, videos, audio, Homework for students, discussions in virtual classrooms, online quizzes, and can assess automatically, and the parents can monitor their children activities by logging in using parent code in Edmodo.

Advantages of Edmodo:

1. Adapting a view like Facebook, simply Edmodo is relatively easy to use even for beginners.
2. Edmodo supports preview of various types of file formats such as: pdf, ppt, html, swf and so on.
3. Edmodo is not only accessible with a PC (laptop/desktop) but can also beaccessed using Android OS-based gadget.

Disadvantages of Edmodo:

1. Interference with internet connection can affect website running slower.
2. Students are limited in access to leave because they are only limited in that class.

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