

Using YouTube as A Science Media of Elementary School in The Middle of Pandemic Covid-19

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Abstrak

Penelitian ini bertujuan untuk mengungkap pemanfaatan YouTube sebagai media pembelajaran sains bagi peserta didik kelas atas (kelas IV, V dan VI) pada salah satu Madrasah Ibtidaiyah yang ada di Sukolilo Pati. Peneliti menggunakan metode deskriptif kualitatif dengan sample 3 guru MI serta 16 peserta didik kelas atas yang dipilih secara purposive. Instrumen utama dalam penelitian ini adalah peneliti sendiri yang dibantu dengan instrument tambahan berupa daftar wawancara online melalui whatsapp dan questionnaire online yang dibuat dalam bentuk google form. Data selanjutnya dianalisis secara deskriptif untuk mengungkap bagaimana Guru dan peserta didik memanfaatkan fasilitas media YouTube dalam menunjang pembelajaran sains. Hasil penelitian mengungkap bahwa platform YouTube dipandang sangat potensial dan mudah digunakan untuk mengakses video pembelajaran sains dan juga mengupload video pembelajaran oleh guru untuk menunjang pembelajaran sains terutama di masa Pandemic Covid-19. Selain itu keberadaan YouTube juga membantu guru dan peserta didik dalam menambah literasi informasi kapan saja dan dimana saja serta membantu guru untuk memenuhi kebutuhan gaya belajar audiovisual peserta didik. Dalam menunjang proses pembelajaran, pemanfaatan YouTube diintegrasikan oleh guru dalam pembelajaran online yang diselenggarakan melalui group whatsapp yang dishare melalui pembagian link YouTube. Terdapat 9 materi sains yang ditunjang dengan penggunaan video YouTube yakni: ciri makhluk hidup dan lingkungan hidupnya, perkembangan makhluk hidup, keseimbangan ekosistem, pelestarian hewan dan tumbuhan, hantaran panas benda, perubahan wujud benda, gaya dan gerak, perpindahan energi dan tata surya. Efektivitas pemanfaatan *YouTube* oleh peserta didik didasarkan pada aspek kegunaan, ketepatan, dan ruang lingkup. Adapun hambatan utama yang ditemui terutama berkaitan dengan kondisi kestabilan signal dan juga diperlukan kuota yang memadai untuk bisa mengakses video pembelajaran. Dalam rangka meminimalisir hambatan tersebut Guru menyarankan kepada peserta didik

untuk mendownload video pembelajaran sains sehingga dapat dibuka kapan saja dan berulang-ulang tanpa membutuhkan akses dan kuota internet. Disamping itu diperlukan pendampingan orang tua untuk selalu mendampingi dan mengawasi peserta didik selama mengakses video pembelajaran menggunakan platform YouTube.

Kata kunci: YouTube, Media Pembelajaran, Sains, Sekolah Dasar, Pandemic Covid-19.

Abstract

The study aims to expose YouTube as a science media for high grade students (IV, V and VI grade) at one of the Madrasah Ibtidaiyah's existing at Sukolilo Pati. The researchers used a qualitative descriptive method containing sample 3 teachers and 16 students selected by purposive sampling. The main instrument in this study is its own assisted researcher with the extra instruments of online interview lists through the WhatsApp and the online Questionnaire in Google form. The data is further analyzed in a descriptive way to reveal how teachers and learners use YouTube media tools to promote scientific study. Studies reveal that YouTube platforms are viewed as highly potential and easy to use to access science learning videos and also upload learning videos by teachers to support scientific learning especially in the pandemic covid-19. In addition, the presence of YouTube also helps teachers and learners increase literacy of information at all times and elsewhere and helps teachers to meet the needs of learners' audiovisual learning. In supporting the learning process, YouTube use is integrated by teachers in online learning held through the WhatsApp group that shared through the distribution of YouTube links. There are 9 scientific materials supported by the use of YouTube videos: characteristics of living things and their environment, the development of living things, the balance of ecosystems, the conservation of animals and plants, the transfer of heat, the changing of objects, forces and motion, the transfer of energy and the solar system. The effectiveness of the use of YouTube by learners is based on the usefulness, precision, and scope. The main obstacle adaptive primarily to signal stability conditions and it also requires adequate quotas to access learning videos. In order to minimize the hurdles, teachers recommend to learners to download science learning videos so that they can be opened at any time and again without the need for Internet access and quotas. In addition, parental assistance is required to assist and oversee learners throughout their programming of learning videos using YouTube platforms.

Keywords: YouTube, Learning Media, Science, Elementary School, Pandemic Covid-19.

INTRODUCTION

Social distancing resulting from the covid-19 plague require a change in the performance of learning. The concept of school from home becomes a mainstay of national education (Dewi & Laelasari, 2020). Physical policy of picking up the epidemic, forcing changes from formal education in school to home-schooled on a national scale. Implementation of learning in the center of the covid-19 requires all stakeholders in order to adapt to appropriate learning activities to keep education within the pandemic. The teacher's role as a spearhead is to be able to adjust teaching activities at a time by seeking appropriate learning innovation and also make it easier for learners. Among the innovation in learning that teachers can adopt for learning is the use of digital learning media. The learning media can help teaching activities and select functions to clarify the meaning of messages or information presented so as to achieve better learning purposes (Hustandi & Sutjipto, 2015). A textbook media study based on Hujair (2016) must have some substance: (1) a channel form used to conduct messages, information or lesson materials to the recipient of the message or learning, (2) various components in a learner's environment that can stimulate learners to learn, (3) forms of a capable physical instrument present a message and stimulate learners to learn and (4) forms of communication and methods that can stimulate learners to learn, both print and audio, visual and audio-visual.

The learning media which has all four and potential substances to use in sustaining current learning are YouTube platforms (Setiyana & Kusuma, 2021). Through the benefits of a YouTube platform students can develop learning not only through textbooks, but students can explore material from various Internet sources, including YouTube videos. However, every YouTube user either teacher, student or parent must be wise, critical and selective about the information presented through YouTube videos (Madathil, Rodriguez, Greenstein & Gramopadhye, 2015., Tufecki, 2018).

The purpose of using YouTube as a learning medium is to diminish teachers in explaining lesson materials, creating an interesting, exciting, and interactive atmosphere of learning. Previous studies have revealed that YouTube influences the growth of learning and helps teachers to convey programs to be taught (Cepi, 2017). YouTube use can also increase learning motivation and a level of understanding of students' concepts and potential to attract students' attention in learning (I Wayan, 2014., Setiyana & Kusuma, 2021). YouTube learning videos can be used for remote learning, both for students and teachers through a video presentation made by either a teacher or an appropriate YouTube video. Using YouTube as a learning medium can be used at any time without limiting space and time on the condition that the smartphone or the device used as a media presentation is connected to the Internet.

In the using YouTube as a learning media, the teacher must know in detail some of the things about: (1) how to set up an account on YouTube, (2) how to upload learning videos on YouTube so that students or anyone can access them, (3) how to find learning videos on YouTube, (4) how to download learning videos on YouTube, and (5) how to run (play) learning videos on YouTube, both online and offline after the video has been downloaded.

YouTube has grown into the most widely visited video sharing service online and has become a fascinating media use in education (Snelson, 2011). YouTube has some of the advantages of learning media (1) YouTube is easy to use and can be followed by all, including elementary and teacher students, (2) YouTube provides information on developing education sciences, technology, culture, (3) YouTube facilitates discussions or interviews and even reviews a learning video and (4) it has the HTML link to a learning video that can be Shared. Nevertheless, use of YouTube is highly dependent on Internet connections, and when there is a disruption of connections, access to YouTube use can be blocked. The feature of downloading videos on YouTube is viewed as able to minimize barriers to Internet connections, since students can repeat the successfully downloaded learning videos.

Many studies have been done on YouTube's use as a learning media such as Mujianto (2019), Pratiwi & Hapsari (2020), Lurita Sari (2021), Setiyana & Kusuma (2021) that study YouTube's role as a learning media, but studies on YouTube over elementary school media are rare. Thus further research is needed on how YouTube is used as an elementary school science media, and reveals barriers to its implementation.

METHOD

The researcher uses qualitative descriptive methods to expose how YouTube's use of elementary science at the time of the pandemic. Selection of qualitative descriptive methods may be used to reveal insights into phenomena associated with research subjects such as, impressions, motivations, and overall purpose in the natural context (Moleong: 2011). The subjects of this study are 3 elementary teachers and 16 high grade students (IV, V and VI grade) selected by purposive sampling from one of the Madrasah Ibtidaiyah (MI) of Sukolilo Pati. The main instrument in this study is its own researcher, and additional instrument of online interviews through the WhatsApp and an online Questionnaire form that contains 15 open and restricted questions. The data obtained next is analyzed in a descriptive way to be generalized.

RESULT AND DISCUSSION

Studies have revealed that teachers are using YouTube as a source of learning media for the science study video sharing as a material support that the teacher provides through WhatsApp. As for the video highlighted to students is a science learning video that is already available and freely accessible by the user. Teachers have also used YouTube to upload learning videos made by themselves, which is a teaching video recording that was previously recorded using a smartphone. In this case the teacher does not edit the video using the video application to package it becomes more interesting. This is because teacher literacy limitations are associated with the ability to use digital applications that can be used to create more interesting and interactive learning videos. It correlates with the sari (2020) that a teacher must be able to adapt to a core 21st century learning scheme at a time of impact, among other things, by improving digitally related capabilities and thus packaging learning to be more interesting and interactive.

Studies have also revealed several science learning videos that are used by teachers and consulted on learners to support the science presented at Table 1

Table 1. Science Material and Source of Link YouTube

No	Science Material	Source of Link YouTube
1	<i>Characteristics of living things and their environment</i>	https://youtu.be/i8IRDsOIEMY
2	<i>The development of living things,</i>	https://youtu.be/4radl5OspXU
3	<i>The balance of ecosystems</i>	https://youtu.be/nhBg30PJevM
4	<i>The conservation of animals and plants</i>	https://youtu.be/AyldzqxrcsQ
5	<i>The transfer of heat</i>	https://youtu.be/tbl4zrTku-Q
6	<i>The changing of objects</i>	https://youtu.be/b2zRk9xGapo
7	<i>Forces and motion</i>	https://youtu.be/lc9dXCa0gRs
8	<i>The transfer of energy</i>	https://youtu.be/DW3_nPSv1fs
9	<i>The solar system</i>	https://youtu.be/jFlz8izir3U

The selection of learning videos as shown at Table 1 is selected according to consideration of the content of the video as well as the aspect of the view that is packed in the video. In the process the teacher sent a video link through the WhatsApp group during discussing scientific material at each meeting. The teacher asks students to watch the completed video link and also direct to download the video so that learners can repeat the video and listen

to it at any time without having to connect to the Internet facility. The use of this video is expected to sustain students' understanding of the scientific materials presented by teachers. As Nunuk (2018) claims that the learnings' **media** can be used as a means of transmitting information made or used according to the theory of learning, it can be used for the purpose of learning to transmit messages, stimulating the thoughts, feelings, attention, and student wants and thus can drive an effective learning process.

Effective learning processes continue not in spite of the role of smartphone/learning devices that are facilitated by parents to promote online learning. The existence of the smartphone is one of the most widely used and sophisticated information technology tools available to all. One of them is an elementary school students. Their gadgets are almost always connected to the Internet. The Internet becomes a need for students to perform activities, not just for the needs of learning only. The majority of trainees have been provided with these technological and communication facilities. In addition to engaging in online learning they use smartphone devices for communication, playing games and opening YouTube.

YouTube is one of the social networking platforms that gives users audiovisual facilities, so YouTube use can help teachers to fulfill student audiovisual learning styles. The use of YouTube as a science-learning medium is quite popular with learners. This is seen from research data that reveals that learners respond favorably to the use of YouTube videos in science studies. Learners are also more motivated and enthusiastic in following the teaching. This is because learners can see firsthand visualize moving. As well as research reveals that the use of YouTube can increase learning and potential motivation to attract students in learning (I wayan, 2014., Setiyana & Kusuma, 2021). According to Sianipar (2013), YouTube is the most popular video database on the Internet, and it is a video site that provides information on mobile and reliable pictures. The site is available for those who want to do a video search and watch it live.

Research has also revealed that the use of smartphone devices for YouTube overall uses parental quotas and wi-fi sharing with neighbors as well. However, in the use of YouTube access, learners need a lot of quotas and a steady Internet signal. Availability of quotas and also Internet signals become a separate evil for learning. Often it is not as if videos can be opened until they are finished because of the obstacles. To download the video that shared by teachers, the learners must provide sufficient quotas as well as a sizable smartphone memory. Some of the smartphones also have insufficient memory to store a video already downloaded. Even though it is, participants assume that the presence of a feature download on YouTube can make it easier for learners to watch learning videos over and over again, whenever needed.

It is also viewed as providing entertainment for learners with guidance from both adults and parents. Entertainment that is entertainment that is both spiritual and educational. This is what attracts learners to open YouTube apps and with moving pictures and sounds that make them happy and un-bored. It suitable with Yudhi's opinion (2016) that effective learning media can be used to transmit and transmit messages from sources in an organized way so as to create a conducive learning environment in which the recipient is able to process efficiently and effectively. It also indicates that YouTube's wise use can have a positive impact on education primarily because it offers highly practical and easy learning. As Sianipar (2013) shows that YouTube as a learning medium has surveillance (motive for information) for the search for an event (news), or situations in a neighborhood that can add to its culpability the authenticity of its discussions and help improve its effectiveness in learning.

Effectiveness refers to the extent to which a tool /media has been used or performed in daily life (Zamroni, 2002). In this YouTube context means seeing the extent of its effectiveness. In this regard researchers see the effectiveness of the use of YouTube by learners based on its USES, precision, and scope. In aspects of usefulness, the use of YouTube by learners so far refers to the extent of the media being helpful. YouTube benefits them in learning, in the performance of tasks, and in expanding their science especially in the study of science. On the other hand, in terms of accuracy, it refers to the extent of the media being precise and accurate, one of them in terms of time. The learner with a parent says that information packaged in YouTube videos can summarize and represent material presented, can enhance the learner's knowledge from both the education and other side of the education. YouTube use of unlimited space and time, accessible anytime and anywhere. As for the scope aspect refers to completeness of content on video media that is presented because of information that is presented more interactive and easily understood, and includes information that relates to learning teaching activities.

CONCLUSION

The students make YouTube a learning media primarily to access the learning videos as a science advisor sent by the teacher through the group WhatsApp. As for the scientific material supported by the emergence of YouTube video links includes the characteristics of living things and their environment, the development of living things, the balance of ecosystems, the preservation of animals and plants, the levity of objects, the changing of objects, force and motion, the transfer of energy and the solar system. The presence of YouTube also helps teachers and learners increase literacy of information at all times and elsewhere and helps teachers to meet the needs of learners' audiovisual learning Learners respond favorably to the

use of YouTube because they are viewed as more interesting and more enthusiastic and motivated to follow online learning activities. YouTube is in effective learning activities from aspects of usefulness, precision and scope. In its usefulness, the use of YouTube benefits learners in learning, performing tasks, and adding science to scientific study. In the aspect of precision, the information packaged in YouTube videos can summarize and represent the material presented, can add learners' knowledge from both the education and other knowledge, is not limited to space and time, and can be accessed at any time or place. As for an aspect of the scope referring to completeness

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