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The Effectiveness of YouTube Media to Improve Knowledge and Literacy of Elementary School Students

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ABSTRACT

Indonesia's low literacy rate makes Indonesia lagging behind several other countries. The purpose of this study is to improve technological literacy in school students. This study uses the YouTube application as a medium to improve technological literacy. The method used is descriptive quantitative with an approach using a pre-experimental method in the form of a one-group pre-test post-test design. The results of this study an increase in knowledge of technological literacy by 42%. The pre-test result of 28% increased to 70% after being given treatment. YouTube media is proven to be able to improve technological literacy in elementary school students and can be used as a technology literacy media.

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1. INTRODUCTION

Technological literacy is a mandatory requirement in the industrial era 4.0 and the era of society 5.0 (Nastiti & Abdu, 2020). With technological literacy, humans can know about technology, so that humans can live easily. However, some people don't want to look for information because the text is too much so it's easier to get bored. There are other media that can be used, namely YouTube. YouTube is a popular social media that contains a collection of videos, such as funny, interesting videos, music, and so on. In addition to containing interesting videos, YouTube media is used as a learning media and literacy media (Sari, 2020; Baihaqi et al., 2020).

Many studies discuss the effectiveness of YouTube as a learning medium. The results showed that students were more interested in learning to use YouTube and the learning burden of students was reduced (Indriyati, 2021). The results of other studies reveal that YouTube has a significant influence and students view the use of YouTube positively (Winarni & Rasiban, 2021). YouTube research also shows an increase in student learning motivation (Yusri et al., 2018). The use of new media, namely YouTube as a means of socialization carried out in five elementary schools in the Jakarta area is considered quite effective in conveying media literacy socialization messages because accessing it is very easy to reach. (Hanika et al., 2020). YouTube is considered very complete and clear (Meinawati, 2020). YouTube can be played anytime anywhere as long as students are still holding a device or computer, as long as there is an adequate internet network (Sari, 2020).

From the description that has been presented, there are not many studies that discuss "The Effectiveness of YouTube Media to Improve Knowledge and Literacy of Elementary School Students". The purpose of this study is to analyse how the effectiveness of the use of YouTube media on technological literacy in elementary students is. This study uses a quantitative descriptive method with an approach using a pre-experimental method in the form of a one group pre-test post-test design. The results will be analysed using descriptive statistics by comparing the mean values in the pre-test and post-test. The results show an increase in value after being given material in the form of YouTube media.

2. THEORETICAL FRAMEWORK

The trend of increasing internet usage has made many schools and universities use the internet as a learning tool. Many lessons are designed using online modes. The government through the ministry of education provides an Online Learning System grant which aims to equalize access to learning by opening online lectures that can be widely accessed by the public. Through the use of internet technology, it is hoped that it can add learning resources for students (Nasution, 2018).

In this modern era, society is faced with the rapid development of information technology. This can be seen from the increasing use of gadgets and the number of internet service users every year. Information technology itself has developed in accordance with the direction of the development of science. Of course this can be used as a support for teaching and learning activities. The use of this media provides several advantages including being accessible anytime and anywhere. One of the media that supports internet-based learning that can visualize good learning techniques and materials is YouTube (Sari, 2020).

YouTube is a video sharing site that is so popular that it at the moment. "Around 100,000 videos are watched every day on YouTube. Every 24 hours there are 65,000 new videos uploaded to YouTube. Every month YouTube is visited by 20 million viewers with the majority aged between 12 years and 17 years old year". YouTube is not an educational video

sharing site, but in its development YouTube launched a special service for education in 2009. The advantage of learning with video is that it presents image and sound representations of an idea or event to students in the classroom. YouTube is “one of the most popular video sharing services on the internet today” (Tohari & Bachri, 2019).

YouTube media has become part of the progress of information technology today, especially in the academic world. The development of science and technology increasingly encourages renewal efforts in the use of technological results in the learning process. Teachers are required to be able to use the tools that can be provided and in accordance with the progress of the times (Sari, 2020).

Literacy can help to find the information needed quickly, easily and relevantly. Can choose and distinguish which information is true and dubious or untrue regarding information that is currently developing (Subarjo, 2019). Media literacy is “ability to access, analyse, evaluate and communicate the content of media messages”. The media Literacy also and there you shall remain of the ability to perceive , look to analyse and deconstructing a message of solidarity to the media .The ability to do this it is aiming to the individual being continues to increase intentionally or literate about how they would be the constructed of media or made and accessed (Hidayat & Ginting, 2020).

3. METHOD

The research method used is a pre-experimental method. We use this method because we do not use a comparison class as a form of the author's efforts to explain the advantages of a method (Juita & Yusmaridi, 2018). We were involved in data collection. The data collection technique was in the form of a questionnaire (pre-test and post-test with the same questions) to 10 fifth grade elementary school students via Google form. This study was divided into 2 sessions, namely pre-test before the material and post-test after the material. The instrument designed is a Likert scale with two choices (yes and no). After the data is obtained, the researcher will process the data and then compare it until a conclusion is reached.

4. RESULTS AND DISCUSSION

4.1 Demography

This research was conducted in elementary schools. The first step in this research is to conduct a school survey and ask permission from the school. Then we interviewed one of the teachers about learning at school and the researchers chose a sample of 10 students with details of male as much as 40% (4 students) and female as much as 60% (6 students).

4.2. Phenomena in the Learning Process

The research process is carried out online. The activity uses Google Meet as an online classroom, YouTube as a media platform for storing learning content, and Google forms for giving pre-test and post-test questions. Students are directed to fill out questions on Google forms through WhatsApp media, and then study learning materials independently through the YouTube platform with the learning link provided. There were no problems during the activity.

The activity was carried out in 3 sessions, where the first session gave pre-test questions using the Google form, the second session provided learning materials in the form of videos that were watched through the YouTube media platform, and the last session was the provision of material. The pre-test and post-test questions were designed with yes and no

multiple choices. The questions consist of basic questions listed in the learning video. The results of the data from the pre-test and post-test will be compared to obtain conclusions from the study.

4.3 Pre-Test and Post-Test Results

The research was conducted online. The tools and media used are YouTube as a medium, Google form to collect pre-test and post-test data, Google meet as an online class media, and WhatsApp to inform pre-test and post-test from Google form.

Table 1 describes the questions posed by the pre-test and post-test. The first questionnaire that was made was a pre-test questionnaire. The making of this questionnaire was distributed to fifth grade elementary school students to find out the extent of technological literacy knowledge by filling in 10 questions that were shared via WhatsApp. After we got the pre-test score, we held an online class through Google meet. In our online classes we provide directions and materials on YouTube links. After delivering the material via YouTube, we gave the students a post-test to measure the extent of students' technological literacy.




The results show several discussion points:

- (i) For question number one there was an increase of 40% after being given material about Google office.
- (ii) For questions in number two there was an increase of 10% after being given material about various kinds of Google Office.
- (iii) For questions in number three there was an increase of 30% after being given material about various kinds of Google Office.
- (iv) For questions in number four there was an increase of 40% after being given material about various kinds of Google Office.
- (v) For questions in number five there was an increase of 50% after being given material about using Google Office.
- (vi) For questions in number six there was an increase of 60% after being given material about using Google Office.
- (vii) For questions in number seven there was an increase of 40% after being given material about using Google Office.
- (viii) For questions in number eight there was an increase of 50% after being given the material for using Google Office.
- (ix) For questions in number nine there was an increase of 50% after being given the material for using Google Office.
- (x) For questions in number ten there was an increase of 50% after being given the material for using Google Office.

The results of **Table 1** show that technological literacy when given a pre-test is 28%. This shows that the level of students' knowledge of technology is still low. Then after doing the pre-test, we provide material via YouTube about technological literacy knowledge.

After being given the material through YouTube, we did a post-test and the results increased to 70%. Based on these results, there was an increase in knowledge of technological literacy by 42%. And the advantage of YouTube is that YouTube can store videos for a long time and videos can be played anytime and anywhere as long as there is internet. YouTube has a positive impact and increases students' knowledge (Sari, 2020).

Table 1. Students' pre-test and post-test results.

Number	Question	Pre-Test	Post-Test	Gain
1	Do you know about office applications from Google?	30%	70%	40%
2	Do you know this logo  ?	60%	70%	10%
3	Do you know this logo  ?	40%	70%	30%
4	Do you know this logo  ?	30%	70%	40%
5	Do you know about Google Doc?	20%	70%	50%
6	Do you know about Google Spreadsheets?	20%	80%	60%
7	Do you know about Google Slides?	20%	60%	40%
8	Do you know the function of Google Doc?	20%	70%	50%
9	Do you know the function of Google Spreadsheet?	20%	70%	50%
10	Do you know the function of Google Slide?	20%	70%	50%

5. CONCLUSION

The conclusion of this study is that YouTube is proven to be effective in increasing technological literacy in elementary school students. From the pre-test results of 28% increased to 70% in the post-test results. There was an increase of 42% after being given media treatment through YouTube. YouTube media is proven to be able to improve technological literacy in elementary school students and can be used as a technology literacy media.

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7. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

8. REFERENCES

- Baihaqi, A., Mufarroha, A., and Imani, A. I. T. (2020). Youtube sebagai media pembelajaran pendidikan agama islam efektif di SMK Nurul Yaqin Sampang. *Edusiana: Jurnal Manajemen dan Pendidikan Islam*, 7(1), 74-88.
- Hanika, I., Putri, M. I., and Witjaksono, A. A. (2020). Sosialisasi literasi media digital di Jakarta (studi eksperimen penggunaan youtube terhadap siswa sekolah dasar di Jakarta). *Jurnal Komunikasi dan Kajian Media*, 4(2), 153-172.

- Hidayat, F. P., and Ginting, R. (2020). Media literacy of communication students in using facebook. *Ettisal: Journal of Communication*, 5(1), 17-29.
- Indriyati, I. (2021). Efektivitas youtube sebagai media pembelajaran jarak jauh (PJJ) mata pelajaran ppkn pada masa pandemi Covid-19. *Academia: Jurnal Inovasi Riset Akademik*, 1(1), 26-29.
- Juita, D., and Yusmaridi, Y. (2018). Pengaruh kegiatan kuliah umum terhadap peningkatan pemahaman konsep metodologi penelitian mahasiswa semester 7 jurusan tadaris biologi ftik iain kerinci. *Tarbawi: Jurnal Ilmu Pendidikan*, 14(2), 45-50.
- Meinawati, K. L. (2020). Pemanfaatan youtube dalam meningkatkan kompetensi tutor bimbeldu private. *Comm-edu: Community Education Journal*, 3(1), 19-26.
- Nastiti, F. E., and Abdu, A. R. N. (2020). Kajian: kesiapan pendidikan indonesia menghadapi era society 5.0. *Edcomtech*, 5(1), 61-66.
- Nasution, S. H. (2018). Pentingnya literasi teknologi bagi mahasiswa calon guru matematika. *Jurnal Kajian Pembelajaran Matematika*, 2(1), 14-18.
- Sari, L. (2020). Upaya menaikkan kualitas pendidikan dengan pemanfaatan youtube sebagai media ajar pada masa pandemi Covid-19. *Jurnal Tawadhu*, 4(1), 1074-1084.
- Subarjo, A. H. (2019). Perkembangan teknologi dan pentingnya literasi informasi untuk mendukung ketahanan nasional. *Jurnal Ilmiah Bidang Teknologi, Angkasa*, 9(2), 2-9.
- Tohari, H., and Bachri, B. S. (2019). Pengaruh penggunaan youtube terhadap motivasi belajar dan hasil belajar mahasiswa. *Kwangsan*, 7(1), 1-13.
- Winarni, R. S., and Rasiban, L. M. (2021). Perception of japanese students in using online video as a learning media. *Indonesian Journal of Educational Research and Technology*, 1(1), 15-16.
- Yusri, Y., Rosida, A., Jufri, J., and Mantasiah, R. (2018). Efektivitas penggunaan media youtube berbasis various approaches dalam meningkatkan motivasi belajar bahasa inggris. *Eralingua: Jurnal Pendidikan Bahasa Asing dan Sastra*, 2(2), 77-82.