



# The Effect of Learning Videos on Students' Learning Comprehension Level

Rizky Adzan Maulana<sup>1</sup>, Rina Maryanti<sup>2\*</sup>

<sup>1</sup>Program Studi Akuntansi, Universitas Pendidikan Indonesia, Indonesia

<sup>2</sup>Department Pendidikan Khusus, Universitas Pendidikan Indonesia, Indonesia

Correspondence: E-mail: [maryanti.rina@upi.edu](mailto:maryanti.rina@upi.edu)

## ABSTRACTS

The Covid-19 pandemic that has hit since 2019 and is currently one of the effects that is felt by students, especially in Indonesia. Since the pandemic, the education system that used to be face-to-face has now shifted to online. The purpose of this study was to determine the effect of learning videos on the level of students' understanding of learning. This study uses a mix method consisting of qualitative and quantitative analysis techniques, namely descriptive analysis. The results showed that students preferred learning that was carried out using interesting learning videos and also students understood more through learning videos. Due to the use of zoom or other media, the majority are constrained by the absence of internet quota. WhatsApp groups are a fairly easy alternative and all teachers can use the WhatsApp group facility. Learning videos are proven to be able to increase students' understanding in learning.

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## 1. INTRODUCTION

The Covid-19 pandemic that has hit since 2019 and is currently one of the effects that is felt by students, especially in Indonesia. Since the pandemic, the education system that used to be face-to-face has now shifted to online. Students and other educational instruments who carry out face-to-face activities every day must now familiarize themselves with online learning. This is also felt by all students where they were previously accustomed to the material taught directly or face to face, and now besides having to get used to it, they also have to work harder in understanding the material. Education is the core of the learning process. (Sujarwo *et al.*, 2020). Therefore, the media used in carrying out education or learning needs to be considered along with the number of media that can be used.

Learning media are all that are used to channel messages that can stimulate the thoughts, feelings, attention, and willingness of the learner in the intentional learning process. (Shafi'i *et al.*, 2020). One of the learning media that can be used during this pandemic is through learning videos distributed through Whatsapp groups. Video is a medium for distributing information in the form of moving images with objects in the video being real. (Fadhli, 2016). It can be concluded that learning video is one of the learning media in the form of audio visual with the aim of providing learning messages with attractive displays and animations to help make it easier for students to understand a material. Learning videos help explain a material to be clearer through the use of animations so that students are able to capture the message to be conveyed from a learning material and be able to understand each lesson well.

Understanding according to Sumarno (2016) which is a translation of English understanding, namely the absorption of the material being studied. Students are said to have understood a material, that is, if they have been able to explain or provide a detailed description of something through their own words. Meanwhile, according to Auliya (2016), he argues that understanding is part of the basic aspects of learning, so the learning model needs to pay attention to understanding. From the explanation above, it can be concluded that understanding is the basis of learning which is the ability of students to absorb the material being taught until students are able to explain again using their own words. Students can also be said to understand if they are able to make connections from new knowledge which will be added to old knowledge. New incoming knowledge is integrated using mental models and cognitive frameworks. The basis of an understanding is given from conceptual knowledge. Rahmat (2018) also argues that students are said to understand if students already understand something they know, are able to understand the meaning of a learned meaning, by explaining or converting it into another form.

The level of student comfort in learning will affect a positive learning environment, the learning component is very relevant in creating students' ability to access learning materials developed through learning media. Learning media as an intermediary between educational instruments, besides that the media is also a very important source of information in the implementation of the learning process. Learning videos that are made interesting with various animated elements that can provide an overview and explanation in conveying the message of a learning material are believed to increase students' understanding. In this condition, learning videos are not only seen as entertainment media, but also function as one of the most popular learning methods.

Currently, there are many studies that discuss learning videos, such as research conducted by Vitaloka *et al.*, (2020) who conducted a similar study which examined the effect of learning video media on students' conceptual understanding abilities. This research is a quantitative research conducted with an experimental method where questions will be given before and

after the video is shared in the WhatsApp group. The results of this study are that there is no high increase, but there are some students who have a high increase because these students are indeed active students in their class. [Yulisa et al., \(2020\)](#) conducted a similar study that examined the effect of physics learning videos on junior high school students' concepts. [Saputra & Mujib \(2018\)](#) conducted a study that examined the effectiveness of the flipped classroom model using mathematics learning videos on understanding concepts. [Gusmania & Wulandari \(2018\)](#) conducted a study that examined the effectiveness of using video-based learning media on students' understanding of mathematical concepts. [Senjani et al., \(2015\)](#) who examined the effect of video-assisted discovery learning models on students' understanding of concepts on the subject of geometric optics.

From previous studies there are differences with this study. The difference with previous research is that this study uses qualitative and quantitative methods which are carried out by distributing questionnaires to students and interviews with teachers. The update in this research lies in the use of media for making learning videos, namely Canva. Canva media can be accessed via the internet easily and anytime. In addition to using Canva for making materials similar to power points, Canva can also be used for other purposes such as making learning videos decorated with various animations so as to create a more interactive learning atmosphere. By using interesting and colorful media, students can be more active in carrying out learning ([Zaini & Dewi, 2017](#)).

Therefore, the purpose of this study was to determine the effect of instructional videos on the level of student understanding. The method used in this study is a mix method consisting of qualitative and quantitative. Data collection techniques used in this study using interview techniques and questionnaires conducted to teachers and students of grade 4 School. The analytical technique used in this study is descriptive analysis. The results of the study explain that students prefer learning that is carried out using interesting learning videos and also the videos can be played back for more understanding. The use of learning video media is more effective because the majority of students are constrained by the absence of internet quota in using zoom media or other media. In addition, the use of WhatsApp groups as an alternative medium to communicate and share information between teachers and students is considered appropriate because it is quite easy to use and all teachers can use the WhatsApp group facility.

As a manifestation of the Tri Dharma of Higher Education, Universitas Pendidikan Indonesia students cooperate with schools, teachers, students, and parents of students in increasing motivation and building education with more integrity in the MDBPE-MBKM UPI Thematic KKN program.

The problem formulated as the focus of the MDBPE-MBKM UPI Thematic KKN activities is the need for teachers and students to find interactive, interesting, and collaborative online learning methods and media. With the aim of helping to solve the problems that occur, the MDBPE-MBKM UPI Thematic KKN students have compiled various solution steps with the aim of increasing the potential and quality of learning during the Covid-19 pandemic.

## 2. METHODS

This study uses a mix method consisting of qualitative and quantitative with the qualitative method used is interviews. Interviews were conducted with teachers to see the results of using learning videos on the level of students' understanding. While the quantitative method used is the distribution of questionnaires. The questionnaire contains questions that will be analyzed later. Data collection was obtained from the results of distributing questionnaires

that had been carried out. The analytical technique used is descriptive analysis. Descriptive analysis is an analytical process carried out by trying to make a description or description of the phenomenon being investigated by making conclusions based on the data obtained during the study. The type of research data is primary data, namely questionnaires. The population and samples of this study were teachers and students of grade 4 at School, consisting of 2 teachers and 18 respondents from grade 4 students at School.

The method of implementing the MDBPE-MBKM Thematic KKN which is carried out online at School by holding discussions with teachers regarding the level of student understanding through distributing material through WhatsApp groups or distributing learning videos. while for students, discussions were carried out through questionnaires regarding whether it was easier for students to understand the material provided through distributing material in WhatsApp groups or through learning videos. After that, an analysis will be carried out to see the effect of learning videos on the level of understanding of student learning.

The research instrument used is in the form of questions about the obstacles experienced by students in using media for distance learning, including:

1. Did you experience learning difficulties at the beginning of the PJJ (Distance Learning) implementation?
2. Are there obstacles in the learning process such as difficulty understanding the material given?
3. Are the material files distributed via whatsapp or other groups well understood?
4. Do you prefer material through learning videos rather than just providing files via whatsapp groups or other social media?
5. Is the provision of material with learning videos easier to understand?

### 3. RESULTS AND DISCUSSION

Online learning is the implementation of learning that is carried out not face-to-face between teachers and students at a distance using an internet network connection. The purpose of online learning is to optimize educational services during the COVID-19 pandemic in order to improve the quality of teaching and learning activities (Coman *et. al* 2020). The implementation of online learning that is often used by teachers at School is by sharing material through a whatsapp group with students. Teachers feel that this method is still not effective for teaching. Therefore, teachers are required to provide more interesting learning methods in order to increase students' interest and enthusiasm for learning which feels more boring during the COVID-19 pandemic. Another supporting factor needed by students is the presence of parents in as a companion during learning. Therefore, the role of the teacher must also be owned by parents, where parents accompany and control their children during the learning process.

In the early days of the pandemic where the learning system transition occurred, schools carried out learning through whatsapp groups, besides that the school also called one or two students to come directly to school to carry out direct learning. This activity is carried out by the school so that students can still experience learning directly so that they can feel socialized, since the age of elementary school students is an age where they really need a lot of interaction. Furthermore, learning is carried out using other media, such as video calls , zoom meetings , and others. But the teacher feels that this method is still not effective, because there are still many students who have problems such as the absence of internet quota. Teachers feel that they are still not successful in teaching their students. The success of the implementation of online learning can be seen from the increased awareness of

technology, the increased learning content, and the motivation to use existing technology (Pangondian *et al.*, 2019).

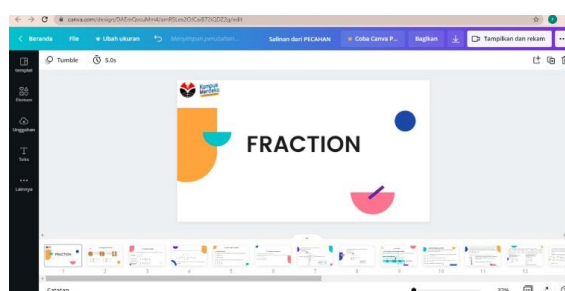
In order to achieve the success of network learning, it is necessary to use technology, namely learning media as a strategy. However, if you want to improve performance in online learning, then in using online media there must be improvements and skills in optimizing so that they can solve the problems that are being faced (Dhawan, 2020). However, the use of technology in learning media has not been fully achieved, because there are difficulties for old teachers to process various new learning media, so that teachers who are young are more proficient in utilizing various existing learning media.

Learning media are tools used in the learning process, namely everything that is used to stimulate students' thoughts, attention, feelings and abilities or skills so that students are encouraged in the learning process (Puspitarini *et. al* 2020). According to Adam (2015) learning media are tools or physical devices used for learning activities and to convey messages to facilitate understanding of existing concepts. It can be concluded that learning media is a tool used to help understanding the material during the process of learning activities.

The selection of media is based on the characteristics of students, namely the characteristics of the learning materials to be taught and the learning styles of students. Well-chosen media can help facilitate the transfer of knowledge more clearly to students. According to Piaget's hierarchy, the characteristics of elementary school students are at the concrete operational stage, namely the stage where learning activities must present real things and exist in students' lives (Kurniawan, 2015). Then adjust the learning media with the material to be taught by the teacher (Abdullah, 2017). In addition, the learning media that will be used must also adjust to the student's learning style, namely, auditory, visual, and kinesthetic.

In this case, the teachers of School mostly have difficulties in teaching their students because of the lack of media that can arouse and encourage students' enthusiasm for learning. Learning videos are one solution to solve these problems, but not all teachers can make these learning videos. Learning videos are media that display audio-visuals containing learning messages containing concepts, procedures, principles, and theories of knowledge application to help students understand a learning material (Rosida & Safeyah, 2020).

In this COVID-19 pandemic where teachers and students cannot meet in person, the media that is considered appropriate to be used is learning videos, because apart from being easy to use, all students can follow them (Susmiati, 2020). Then, learning videos can also overcome students' boredom and boredom when studying at home (Hadi, 2017). Learning videos are made with the application of learning principles that are made interesting and describe the actual process and are equipped with various interesting audio-visual attributes so that students can more easily understand the material provided.

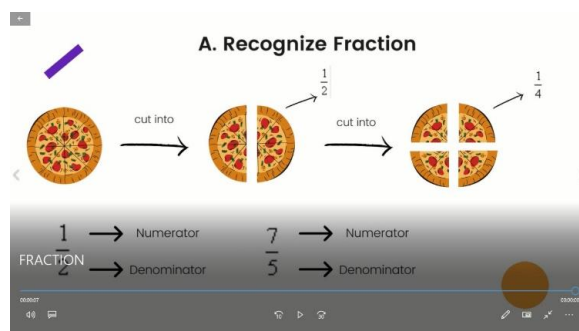


**Figure 1.** The Process of Creating Learning Videos Using Canva

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**Figure 1** shows about the learning video made by UPI Thematic KKN students contains Mathematics material, namely Fractions. The learning video was made to help grade 4 students at School make it easier to understand the material. Learning videos are distributed to students through WhatsApp groups that are intentionally created to make it easier for teachers to provide material or share information to students, so students can carry out learning by further reducing constraints from internet quotas, because learning videos can be saved and played back. Then, if there are questions, they can be asked in the whatsapp group and the teacher can immediately answer them. The advantage of using video is that learning becomes more interesting so that students' learning motivation and level of understanding increase because the video provides concrete experiences of abstract things (Agustiningih, 2015).

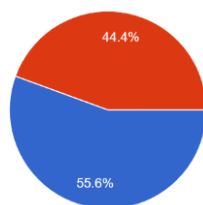


**Figure 2.** Video Learning Mathematics with Fractions

**Figure 2** shows about learning video that has been created using Canva media. After that, the research was carried out by distributing questionnaires to grade 4 students at School to test students' understanding through learning videos that had been distributed and discussing with subject teachers regarding how students responded and students' level of understanding. Basically, the obstacles experienced by School during the COVID-19 pandemic, one of which was the problem of providing learning materials to students. Based on the results obtained from the program's target sources, it is said that it is quite difficult to increase students' understanding where teaching and learning activities must be carried out online. Due to the cost of the quota needed more to carry out learning through video conferencing applications, the alternative used at School is to carry out teaching and learning activities through learning videos that are made as attractive as possible by subject teachers in order to minimize the quota costs incurred and can more effective by achieving student interest and enthusiasm for distance learning. Video learning is one of the alternative learning methods in the form of audio-visual that can improve students' understanding in capturing learning material in the long term, in the sense that if students cannot follow the lesson on the specified schedule, the student can reopen the material distributed via video. learning. In this case, this method can be said to be effective in terms of timeframe, flexibility, and can save costs.

From the distribution of the questionnaires that have been carried out, the results of each question in the questionnaire are as follows:

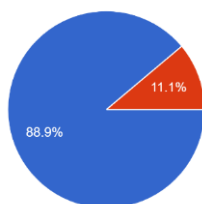
1. Did you experience learning difficulties at the beginning of the PJJ (Distance Learning) implementation?



**Figure 3.** Question Diagram 1

**Figure 3** shows the result of question 1 from the distributed questionnaire. From these questions, it was found that as many as 55.6% had learning difficulties at the beginning of the implementation of PJJ (Distance Learning), while as many as 44.4% of students did not experience learning difficulties at the beginning of the implementation of PJJ. Basically, the distance learning system is one solution in conducting learning during the COVID-19 pandemic which requires every individual to do physical distancing or maintain a distance. One alternative for distance learning at that time was through WhatsApp groups. However, in practice many students feel that the learning method is less effective and many students have their own difficulties. The difficulty factor in student learning at the beginning of the COVID-19 pandemic, namely when the teacher gave a material or a matter of many passive student responses so that the discussion was not maximal, then also frequent disturbances in the internet network so that the use of WhatsApp was disrupted, and for students who passive students in WhatsApp groups experience difficulties, resulting in a lot of material being left behind, especially for students who tend to have low understanding which later on these things can increase student learning difficulties (Liu & Tong, 2020). From the side of teachers who are old enough to have difficulty keeping up with technological developments and modern learning styles that use various applications for learning. On the other hand, only teachers who are still quite young are able to keep up with technological developments in terms of learning. In addition, in carrying out assignments, there are still students who do not do the assignments given by the teacher. During the implementation of learning through zoom meetings or other media, there are often students who are not ready to learn in the sense that they are doing other activities. Another alternative is done by the school by calling several students to school to carry out direct learning in turn and also so that students still find the general needs of students, namely socializing with other friends and communicating directly with teachers. However, students still find it difficult to understand the material in several subjects, such as mathematics and science which generally require clearer explanations to understand better.

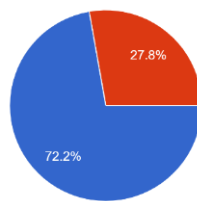
2. Are there obstacles in the learning process such as difficulty understanding the material given?



**Figure 4.** Question Diagram 2

**Figure 4** shows the result of question 2 from the distributed questionnaire. Based on the results above, it is explained that as many as 88.9% of students experience difficulties in understanding the material given to the teacher and 11.1% of students have no difficulty in understanding the material given by the teacher. From these results, it is explained that the majority of students still feel less effective during distance learning. Students feel that the material feels more boring or it can also be because the learning process becomes less interesting due to the absence of more active interactions such as learning at school. Constraints in understanding the lessons experienced by students can reduce understanding of future learning materials. In addition, teachers also experience confusion in providing material that can be understood by students. This can be caused by the absence of direct guidance, unable to conduct joint discussions regarding material that is difficult to understand, and also because the learning time is not measurable with conventional learning (Abidin *et al.*, 2020). The teacher explains that students find it difficult to understand math and science subjects.

3. Are the material files distributed via whatsapp or other groups well understood?

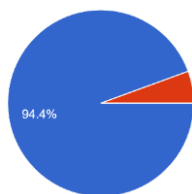


**Figure 5.** Question Diagram 3

**Figure 5** shows the result of question 3 from the distributed questionnaire. Based on the results above, it is explained that 72.2% of students can understand well the material distributed through whatsapp groups or other groups, while as many as 27.8% of students have difficulty understanding well the material distributed through whatsapp groups or other groups. This shows that the distribution of learning materials through WhatsApp groups or other groups is effective because the majority of students use the WhatsApp application as the main communication tool. In addition, the teacher felt helped by the system of providing material distributed through the application. This means that by distributing material through WhatsApp students can more easily access and store the learning material so that it can be studied repeatedly. Each student generally does not own and use their own whatsapp and uses their parents' gadgets for the use of whatsapp in learning, so that students take turns using gadgets with their parents. The teacher explained that for some time there were students who had difficulty following the lesson because the gadget was being used by their parents. Therefore, students are afraid that the material and explanation from the teacher will be left behind. One alternative that the teacher does is that learning materials are shared via WhatsApp groups. Teachers can share learning materials through whatsapp groups and that way parents can also respond to assignments or materials from teachers from the whatsapp group (Hutami & Nugraheni, 2020).

4. Do you prefer material through learning videos rather than just providing files via whatsapp groups or other social media?

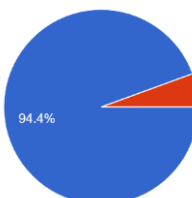




**Figure 6.** Question Diagram 4

**Figure 6** shows the result of question 4 from the distributed questionnaire. Based on the results above, it was found that 94.4% of students preferred learning using instructional video media and 5.6% of students did not like learning through learning video media. From these results it can be concluded that students prefer a variety of interesting displays on the learning videos that have been given, as well as with the motion animations in the videos. The majority of students like learning with interesting audio-visuals to motivate them to pay attention and understand the learning material well. However, 5.6% of students did not like the audio-visual learning method. This is in line with the opinion of [Rismark & Solvberg \(2019\)](#) which states that videos help students to re-listen to parts of material that need to be elaborated, understood, or repeated better. Therefore, teacher creativity is very necessary for the continuity of distance learning. Teachers need to explore the various available learning video-making media and use them for the benefit of student learning. As many as 5.6% of students may be students with the type of learning that only requires visuals. However, in learning activities of course still need parental assistance.

5. Is the provision of material with learning videos easier to understand?



**Figure 7.** Question Diagram 5

**Figure 7** shows the result of question 5 from the distributed questionnaire. Based on the results above, it was found that 94.4% of students answer Yes and 5.6% of students answer No. From these results it can be interpreted that students' needs for learning media are more interactive and can increase students' interest in learning. As with the mathematics learning videos related to fractions above made by UPI Thematic KKN students, from the results of discussions with teachers after the learning videos were distributed to students, the teacher found that students were more aware of giving material using student learning video media. Previously, the teacher had tried to carry out learning through other media, such as zoom meetings, google meetings, video calls, and other media. However, so far the response from students is still passive and there is a lack of active interaction between teachers and students. In addition, students in using these learning media still have many difficulties such as being constrained by a bad internet network, students using parental gadgets for learning so that when the gadget is being used by parents, students cannot follow the lesson properly. Visual materials make it easier for students to catch messages from learning through visualization (observation) and auditive materials make it easier for students to receive messages through

hearing (Busyaeri, Udin, & Zaenudin, 2016). The attractiveness of using video generates positive perceptions which further motivate students to learn (Purwanti, 2015).

From the results above, it can be concluded that during the COVID-19 pandemic and the beginning of the implementation of PJJ, the majority of students had difficulty carrying out learning. At that time the alternative solution used was through the whatsapp group. Students feel that the use of WhatsApp groups as a medium for communicating between teachers and students is quite comfortable to use because it can be used relatively by all students. From the teacher himself, the whatsapp group is a fairly easy alternative and all teachers can use the whatsapp group facility, in addition to giving assignments or materials to students it can also be controlled directly by the students' parents. From the teacher's experience during teaching using PJJ using media such as zoom meetings, google classroom, and video calls, it is still not appropriate because the majority of students are unable to participate in learning due to various obstacles such as the absence of internet quota or unstable internet network, gadgets being used. parents, and passive student responses so that there is less active interaction between teachers and students. Therefore, teachers need other media in learning, namely with learning videos. The role of video is to present information (Yuanta, 2019).

From the results of the research above, the use of video as a medium of learning can improve students' understanding. The results of the questionnaire explain that students prefer learning that is carried out using interesting learning videos and also the learning videos can be played over and over again for students to understand more about the material provided. The teacher explains that students understand better through learning videos, while the majority of the use of zoom or other media is constrained by the absence of internet quota. Hidayati *et al.*, (2019) explained that learning video media with proper and effective development can be used for the learning process and can improve students' understanding.

#### 4. CONCLUSION

From the results above, it can be concluded that during the COVID-19 pandemic and the beginning of the implementation of PJJ, the majority of students had difficulty carrying out learning. At that time the alternative solution used was through WhatsApp groups and learning videos. Students feel that the use of WhatsApp groups as a medium for communicating between teachers and students is quite comfortable to use because it is relatively easy to use by all students. From the teacher himself, the whatsapp group is a fairly easy alternative and all teachers can use the whatsapp group facility. Meanwhile, learning video media was also chosen as the PJJ method which is believed to be able to help realize the effectiveness of online learning during the COVID-19 pandemic. Learning videos are proven to be able to increase students' understanding in learning. Learning videos are formed in an interesting way in order to increase students' interest and enthusiasm in carrying out online learning , so that PJJ can be realized smoothly in order to maintain the integrity of education even though it must be done online .

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