

## Indonesian Science Education Research (ISER)

Available online https://jurnal.unimed.ac.id/2012/index.php/iser ISSN Online: 2715-4653



# STUDY LITERATURE OF LEARNING VIDEO ON INCREASING MOTIVATION AND SCIENCE LEARNING OUTCOMES IN SMP STUDENTS ON ONLINE LEARNING

### Melina A S<sup>1)</sup>, Nurafni D<sup>2)</sup>, Widya N<sup>3)</sup>, and Mariati P S<sup>4)</sup>

<sup>1), 2), 3)</sup>Department of Science Education Universitas Negeri Medan, Indonesia
<sup>4)</sup>Department of Physic Universitas Negeri Medan, Indonesia

Melina.as@mhs.unimed.ac.id

Accepted: February 14th, 2022. Published: July 8th, 2022

#### **Abstract**

During this pandemic, schools must continue to run by continuing to carry out Distance Learning. Based on the results of interviews conducted with science teachers at Junior High School PAB 2 Helvetia, there is a problem, namely the decrease in motivation due to online learning. The purpose of this study is to analyze the effect of video learning on increasing the science learning motivation of junior high school students in online learning. The method used in this research is the method of literature study or literature study. This study examines 20 national and international science journals about the effect of instructional video media on increasing science learning motivation of junior high school students. Data collection techniques in this study used documentation techniques from national and international journals. The data analysis technique used descriptive qualitative. From the results of research that examined 20 journals, it was found that there was an effect of learning videos on increasing motivation to learn science in junior high school students in online learning, where the existence of learning videos made students understand learning better because of the visual display so as to increase the ease of students in understanding science learning materials.

Keywords: Science learning outcomes, learning motivation, learning videos, literature study



#### Introduction

Technological developments to date are increasingly progressing. This change also occurs in the educational aspect, especially in the use of learning media. The use of media in learning has undergone many changes, starting from its initial physical form, now there are many online learning media (Ichsan et al., 2018). This change will change teacher habits in teaching, where teachers start using digital-based media in the learning process.

Currently, various changes in education are occurring as a result of the COVID-19 pandemic that has attacked various parts of the country. During this pandemic, schools must continue to run by continuing to carry out Distance Learning. This Distant Learning must be supported by a platform or application for learning to run well. Distant Learning applications that are often used are zoom, google meet, google classrom, whatsapp, and so on. Of course, all these applications must be connected to the internet.

The use of media in learning is very important because it is useful for efforts to improve the quality of education (Purnamasari, 2020). The reality on the ground shows that the quality of learning is still very low. The low quality of learning is mostly caused by the decline in students' interest and motivation to learn. Less interesting learning brought by the teacher causes students to feel bored following learning activities in class. This is because the use of media in learning is still less varied (Dwipayana et al., 2020). So, in this case it is necessary to have an innovation in learning. During this pandemic, teachers are required to be creative in designing distance learning. Attractive learning media will affect students' interest and learning achievement (Zulfadewina et al., 2020).

Study time from home is increasing due to the extension of the Covid-19 emergency period. The teacher's lag in utilizing technology, causes teachers to only use existing

media such books. modules. as worksheets, and other learning media that are still considered unattractive. Most teachers use slide show media with the help of Power Point software. The PowerPoint slide media that is made seem monotonous, less interactive, static and has not been used optimally in helping explain the concepts of the material in the classroom. This kind of learning process feels less than optimal, so that it has an impact on students' low mastery of concepts (Dwipayana et al., 2020) The existence of obstacles in utilizing technology and the use of media that is still considered ancient is what causes teachers to often use the assignment method only in the learning process.

Based on the results of interviews conducted with science teachers at Junior High School PAB 2 Helvetia, several problems were obtained, one of which was the decrease in motivation due to online learning. So we propose a solution to overcome these problems by conducting research using the *library research* (literature study). The title of this research is "The Effect of Learning Video on Increasing Motivation and Learning Outcomes of Class VII Junior High School Students".

Video learning media is one alternative that can be chosen by teachers in developing learning media to support the teaching and learning process. Video learning media is a tool for distributing information or messages in the form of a collection of dynamically moving images that can be seen and heard. The use of video media can help abstract material concepts in science lessons. The purpose of this study is to analyze the effect of learning videos on increasing the science learning motivation of junior high school students in online learning.

### **Research Method**

The method used in this research is the method of literature study or literature study. Literature study is a series of activities related to the methods of collecting library data, reading and taking notes, and managing research materials. These literatures will be



studied in more depth. The literature review method is a critical study of the discussion of a topic that has been written by scientists or researchers in various sources. Sources of information can be books, journals, e-books, or other scientific articles. This study examines 20 national and international science journals about the effect of instructional video media on increasing science learning motivation of junior high school students. Data collection techniques in this study used documentation techniques from national and international journals. The data analysis technique used descriptive qualitative. The reason the researcher chose the qualitative descriptive research design was because the researcher wanted to describe the situation that would be observed in the field more specifically, transparently, and in depth. The stages of writing carried out are: (a) collection of articles or literature; (b) analyze articles or literature obtained based on the author's thoughts; (c) conclude the results of the literature review.

### **Results and Discussion**

### 1. Learning Media

Science learning is a vehicle for developing creativity, innovation thinking skills that have the potential as a provision to face the challenges of future world progress. But unfortunately, Program for International Student Assessment (PISA) of 79 participants Indonesian was ranked 74 for reading, ranked 73 for mathematics, and ranked 71 for science (Widiani, et al, 2021). Of course, this is a common problem to overcome the low ability of students in Indonesia. Efforts that can be made to overcome these problems are to use learning media that are adapted to the material being taught.

According to Mu'minah (2021), the media is an intermediary used to exchange information. Media based on the learning context are all devices that aim to convey information from teacher to student. As a distributor information, media is needed in learning process (Limbong, et al., 2021). Learning media are all things, both objects or files that can help the communication process and deliver messages so that students are encouraged to take part in learning and achieve learning goals themselves.

Interesting media will more easily attract students' interest in understanding the concepts being taught, especially on the concept of science learning. According to Azikiwe (in Indra, 2021), learning media can cover all the five senses that can be utilized by teachers. The use of learning media can also overcome communication failures between teachers and students. The process of receiving communication can be different because of different interpretations that are influenced by interests, talents, memory and others.

The learning media used are expected to be able to support the specified competencies (Fatmawati, 2018). Learning media is categorized as a good media if interesting, inspiring, innovative and informative (Simanullang & Simanjuntak, 2021). Learning media can fulfill three main objectives of using learning media, namely:

- a. Motivating Interests

  Learning media that is realized with audio and visuals are expected to stimulate the interests and actions of students.
- b. Presenting Information Learning media can function as a presentation of content and material information to students. Presentation of this content can be general and specific depending on the needs of the objectives to be achieved.
- c. Learning Objectives

  Learning media is expected to be able to help teachers to achieve the expected learning objectives for students by physically and mentally involving students in real terms. The material designed must be as attractive and effective as possible and can provide a pleasant experience (Hasan, et al, 2021).

  Types of learning media are also divided

Types of learning media are also divided into several, namely:

- a. Media without two-dimensional projection such as maps, graphics and photos.
- b. Media without three-dimensional projections such as models, props and others.
- e. Audio media such as music, radio and tape recorders.



d. Media with projections such as videos, films, slides and others.

Broadly speaking, learning media is divided into three main things as follows.

- a. Learning media that is only seen (visual).
- b. Learning media that is only heard (audio).
- c. Learning media that can be seen and heard (audio-visual).

The use of effective learning media also requires good planning. Therefore, there are several considerations that need to be considered by a teacher or instructor in choosing the learning media to be used. Some considerations according to Jennah (2009) include:

- a. The teacher or user already understands the operation.
- b. The teacher assumes that the media can describe the meaning to be conveyed better than he himself conveys it.
- c. The selected media attracts students and the presentation is more structured.

Apart from some of the considerations described above, there are also factors in general towards the selection of this learning media. Some of these factors according to Jennah (2009) are as follows.

- Development barriers such as funds, facilities and infrastructure, time and human resources.
- b. Content requirements, assignments and materials. Each material and task guidance is different, so the learning methods used will also be different. So the media selection technique will also be different. For example, the task to be achieved is being able to practice hydrostatic pressure but the media used is LKPD which only answers questions.
- c. In addition to barriers from the side of teachers and media developers, there are also barriers from learners such as initial skills, use of technology and the different nature and character of each student.
- d. Secondary media or companion media from the main media. The more diverse the media used, the more lively the learning atmosphere in the classroom will be. For example, a teacher uses PowerPoint slides as the main medium

for delivering material, but the teacher adds media in the form of videos of problems that help students identify problems related to the material presented by the teacher.

### 2. Video Learning

Media Audio-visual media is a medium that involves sight and hearing in its use. The information shared can be verbal and nonverbal because it can be captured by sight and hearing. Some examples include films, television and video.

Video is an audio-visual media that is often used by the general public, including in classroom learning activities. Video is one of the technologies that can be used as learning facilities and infrastructure which is currently considered sufficient to meet the needs of using learning media (Setyorini, 2016). According to Riyana (in Hufaizah, et al, 2014) learning video media is a medium by presenting visuals and audio containing learning messages on concepts, principles, procedures and theories of knowledge to assist in understanding a material. The specified material has been adapted to the concept to be described. According to J. Juriah (in Mu'minah, 2021) learning videos serve as triggers or stimuli so that students are more interested and not easily bored with the learning process. In addition, it is also expected that the use of learning videos can accelerate students' comprehension. Learning videos can be used to concretize abstract science concepts (Yolanda, et al, 2021).

Based on Yunita & Wijayanti's research (2017) learning video media can increase student learning activity and have an effect on increasing science learning outcomes. According to Khairani, et al (2019) videos involve several intelligences such as verbal, visual, rhythmic which are made into a single unit. The use of videos that evoke motivation to learn will appear in the process. This process will periodically create maximum learning outcomes (Merdekawati & Christiana, 2019).

A learning video can manipulate the situation both in terms of time and place of occurrence in order to produce an appropriate picture. One example is the description of the metamorphosis of a



butterfly. With a video, students can see briefly the process of metamorphosis of a butterfly compared to direct observation which takes quite a long time. In addition, for example in amoebic cell division which is difficult to see with the naked eye, but with videos it will be easy for students to see the process of amoebic cell division (Batubara, 2020).

The use of learning videos like this can also be collaborated with a model such as the discovery learning model as described by Mustafidah (2021). The advantage of using video media is that it can be played repeatedly to get material clarity (Maulani, et al, 2022). This is considered suitable by combining learning videos in the discovery learning model that focuses on discovery. Video is used as initial stimulation to stimulate students' curiosity, while video is at the data collection stage for critical thinking direction. In addition to the discovery learning learning model, the use of learning videos uses the Probing Prompting model.

Research conducted by Setiawan, et al (2019) showed that the Probing Prompting learning model assisted by video media had a significant effect on science learning outcomes. Previous research by Hamdanillah, et al (2017) who used an advance organizer assisted by learning videos stated that there was an influence on physics learning outcomes. The effect is seen in the increase in student learning outcomes both at the lowest to the highest cognitive level.

According to Budiastra (in Arianti, 2020) the use of learning videos is not only to facilitate student learning, but also to directly improve teacher professionalism. In the field of education, the use of audiovisual media can support learning in the 2013 curriculum which prioritizes technology and its application is strongly supported by the online learning situation in the current pandemic era. This is based on so that students can be motivated in participating in learning so that it has an impact on student learning outcomes that remain good even though distance learning. Based on research by Ibe and Abamuche (in Febriani, et al, 2022) it is stated that by implementing

learning using video, it has an impact on superior learning outcomes using video compared to methods without additional media.

However, the use of this learning video also often encounters obstacles that generally occur in schools. Learning videos require laptops and projectors to deliver them, and teachers sometimes find it difficult to make videos or find it difficult to find videos on the internet to operate (Busyaeri, et al, 2016). From the explanation of the data above, it can be concluded that learning videos are effective in conveying information material related to movement. developmental process, the state or situation of the human body, animals and plants that are difficult to see without tools.

### 3. Videos Used in Learning

From the results of various literature studies conducted through 20 national and international journals, it is known that there are several kinds of videos that are used as learning media.

### 1) Process Drawing-Based Videos or Tutotrial

Video tutorials are one of the many other audio-visual media that move with sound. Video tutorials or videos that describe a process of occurrence, one form of illustration and demonstration of real-world conditions (Mu'minah, 2021). Based on research by Huzaifah & Santoso (2014) it is stated that videos like this display a relatively longer period of time on a process of living living things and those associated with it.

This research uses learning videos that describe the growth and development of living things as teaching media to improve student learning outcomes and see the effect of using videos on student learning outcomes. The results of this study indicate that there is an increase in student learning outcomes after using tutorial-based learning videos. The pretest was 43.93 while the posttest 85.29, indicating an increase in student learning outcomes (gain) of 41.36. The n-gain value is 0.72 which indicates the high category. So it can be said that the use of learning videos based on process



depictions affects student learning outcomes on the material for the growth and development of living things.

### 2) Video Sparkol

Video sparkol is one of the audiovisual media that has elements of text, sound. images or animations that are useful as a stimulus to the material being studied. With the use of this sparkol video as a learning medium, it is hoped that it will emerge and increase the creativity and productivity of each student (Wicaksono & Indrawati, 2019). Often teachers find it difficult to convey abstract science concepts to be captured by students. Sparkol videos can be a solution to the problems and obstacles that science teachers often encounter. Sparkol videos can clarify abstract concepts, provide a more realistic picture of the material so that creative thinking emerges from students.

Based on research conducted by Yolanda, et al (2021) it is known that students who are taught using sparkol video media become more active and enthusiastic in paying attention compared to students who are taught conventionally. Students are interested in sparkol videos that explain the material accompanied by sound, movement, text and accompaniment music. This can be seen in the posttest students in the control experimental and classes, where difference is quite significant. At first the pretest of the two classes were not too much different, but it was quite visible the difference in the learning treatment in the posttest of the experimental class which was much higher than the control class. It can be concluded that the use of sparkol video as a teaching medium has an influence on students' creative thinking skills.

### 3) Based Videos Contextual

Videos Contextual-based videos involve overall student learning abilities, especially in science subjects. Research conducted by Fairuzabadi (2017) shows that the use of contextual-based video media in temperature teaching materials and their changes can attract students' interest in learning so that they are more motivated in participating in learning. This contextual-based video presents problems related to temperature and

its changes to be analyzed and students have the opportunity to find concepts related to the material. The problems presented in the video are directly related to everyday life.

Overall. learning by involving contextual-based videos with guided inquiry on the learning model is able to increase learning motivation. students' interested become more and actively participate in learning activities. student's interest is because students are involved in scientific activities to find concepts in a special material in this study, namely the temperature material. This has a positive impact on the acquisition of science learning outcomes that are better than before.

### 4) Video Animation

Animated videos are very liked by students, especially junior high school students because of how it looks. In addition, animated videos which are usually marked by the presence of funny animated characters increase students' ability to remember the information conveyed. The use of animated videos can make it easier for teachers to deliver teaching materials. This animation is a development of technology combined with added material (Arianti, 2020). Based on the analysis of the use of animated videos based on a Canva application in the research of Hapsari & Zulherman (2021) it is known that students are very interested so that it is necessary to develop animated videos based on Canva applications in the science learning process.

Research conducted by Arianti, et al (2020) states that learning using animated videos on global warming material has an impact on learning outcomes that improve and are categorized as high. It is known based on the N-gain value obtained is 0.74525. Based on research conducted by Febriani, et al (2022) the application of animated videos on liquid pressure material can increase student motivation and learning outcomes. It is known based on the N-gain value obtained is 0.81.

Research conducted by Tugtekin & Dursun (2021) states that students are more dominant in liking animated videos because the design of animated videos prioritizes visuals so that it is easy to attract students'



attention and focus. The literature states that decorative visual appeal makes it easier for students to focus and reduces cognitive load. It is this perspective that suggests that increased motivation can be associated with the use of animated videos.

### 5) Based Video Presentation

Video Presentation video is one of the media that can be used to visualize material with motion but still looks real. In addition to facilitating the acquisition of information, video presentations are also considered to be able to increase student learning activities in class. According to Widiawani, et al (2021) online learning with the help of video presentations with a cooperative type model can increase student motivation and learning outcomes effectively. In the experimental class that used video presentations, the posttest was much higher than the control class without the aid of video presentations, as well as on learning motivation.

### 6) Video Interactive

Video Interactive video is generally like any other video that combines elements of sound, images, graphics and other data but is interactive to connect the media with its users. The characteristic of video interaction itself is the user's reciprocal relationship with the media. One of the components needed for this interaction to occur is the delivery medium, namely the computer. The computer is the substitute for the teacher to deliver the material.

Research conducted by Tugtekin & Dursun (2021) states that interactive videos create a higher cognitive load than animated videos. Interactive video is suitable for use when the achievement of the competencies to be achieved is at a high level or commonly called HOTS. Students who watch interactive media need more time to interact with the content. Therefore, the use of interactive video will be quite effective if the facilities and infrastructure are adequate when traced from the interaction. In addition, interactive video media has the opportunity to be offered for independent learning.

### 7) Youtube Videos

Youtube is a website that provides millions of videos that can be accessed easily. Through Youtube we can watch, upload, and download the desired video. Youtube is also considered to be able to improve the quality of learning. Educators and students can access videos simultaneously and conduct online discussions through the comment's column provided. Students can ask questions, give suggestions or opinions regarding the material and videos they have seen.

Through Youtube videos, students can watch examples of questions related to the material, then later on the questions given by the teacher can be solved by discussing with each other. The discussions carried out also run more conducive because the youtube video shows have raised the curiosity of students. Curiosity is what creates student learning motivation so that more and more information will be explored by students. This has an impact on increasing students' understanding of concepts (Iwantara, et al, 2014).

### 8) Practical Videos

Online and face-to-face learning is currently limited, making it difficult to use the laboratory for practical activities. In fact, it will be more interesting if science learning is also applied to practicum. To overcome this problem, a solution is sought by applying practicum video media. The practicum video is equipped with an introduction to practical tools and practical simulations (Mu'minah, 2021). With a practicum video that combines music, images and visualized material, it can help teachers to convey learning objectives that require practice. In addition, it can foster students' motivation and interest in science practicum activities.

### Conclusion

Based on the results of the analysis of the literature study data from the research and discussion, it can be concluded that the application of learning videos in online learning can increase the learning motivation and learning outcomes of junior high school students. Student responses



after carrying out learning using learning videos are very good.

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