Jurnal Pembelajaran Sains
VOLUME 8 NOMOR 2, DECEMBER 2024

http://journal2.um.ac.id/index.php/
ISSN: 2527-9157

ANALYSIS OF THE USE OF ANIMATED VIDEO LEARNING MEDIA ON THE SCIENCE LEARNING MOTIVATION JUNIOR HIGH SCHOOL STUDENT

Yuanda Purnamasari*, Difa' Isabitul Azmi, Suhartatik
Department of Science Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang

Email: yuanda.purnamasari.2103516@students.um.ac.id

Abstract

Animated videos in learning can increase students' learning motivation. This study aims to analyze the impact of using animated video learning media on the science learning motivation of 8th-grade students in Nasional Junior High School Malang. The research employed a descriptive qualitative method with data collection techniques through questionnaires. The research subjects consisted of 32 students who participated in learning sessions using animated video media on the topic of the human organ system. The findings revealed that most students responded positively to the use of animated video media. Students felt more motivated, enthusiastic, and found it easier to understand the material compared to conventional teaching methods such as lectures. The combination of visual and audio elements in the animated videos successfully created a more interactive and enjoyable learning atmosphere, thus increasing students' interest and engagement in the learning process. Therefore, animated video media is recommended as an effective alternative learning tool to enhance students' learning motivation in science subjects.

Keywords*: Animated Video, Learning Media, Learning Motivation.*

Received: 18 October 2024 | Revised: 12 November 2024 | Accepted: 18 December 2024

INTRODUCTION

Motivation in the general view that develops in society is often equated with 'enthusiasm'. Motivation acts as a foundation for students to achieve maximum learning outcomes. Learning, which is a process to change learner behavior, is influenced by various factors, one of which is motivation. Motivation serves as a drive in an effort to achieve achievement. Students who have good motivation during the learning process, the learning outcomes achieved will tend to be maximized (Rahman, 2022). According to Biggs and Telfer, students' learning motivation can decrease. When learning motivation decreases or even does not exist, it will have an impact on decreasing learning activities, which ultimately affects the quality of achievement. Therefore, efforts to improve the quality of students' learning achievement per lu are carried out continuously so that students have high learning motivation, so that they can achieve maximum learning achievement (Rahman, 2022).

Observations show that most teachers in the learning process are fixated on textbooks as the only source of learning. Learning that only uses the lecture method will be less than optimal and will affect the learning outcomes of students (Nisa'i et al., 2022). Based on observations of student learning motivation in one of the junior high schools in Malang city when learning using the lecture method shows that students tend to be silent, lack enthusiasm and do not show enthusiasm in the learning process. Indicators of learning motivation according to Uno (2014) include (1) the desire and desire to succeed; (2) The existence of encouragement and needs in learning; (3) The existence of future hopes and ideals; (4) The existence of appreciation in learning; (5) The existence of interesting activities in learning; (6) The existence of a conducive learning environment, thus enabling a student to learn well.

Active learning requires media support that can deliver students' acceleration of the teaching materials they learn. The process of delivering teaching materials from teachers requires media assistance, so that it is more effective in conveying knowledge materials and information, and has an attraction for students to pay attention to it (Nurfadhillah et al., 2021). Science learning that still relies on textbooks and conventional teaching materials and is teacher-centered tends to make students passive. In today's digital era, students are more interested in technology-based learning, so learning media that can encourage their active participation is needed. The rapid development of technology triggers innovation in the application of technology in education. Teachers are expected to be able to utilize various learning models and media to deliver material effectively. Learning media designed according to student needs and learning objectives are expected to convey information clearly so that students understand the material well. One of the effective media is

animated video, which combines moving audio and visual elements to make learning more interesting and interactive (Agustiningrum et al., 2023).

The use of technology in learning can make the learning process more diverse and interesting. However, many educators still rely on conventional methods such as modules, textbooks and pictures, especially in science learning at school, despite the availability of technology-enabled facilities. Educators need to utilize existing resources so that students can understand the material better through visuals and audio. Science subjects are often considered difficult by students because many of the concepts are abstract and confusing. Therefore, it is important to relate science materials to students' daily lives and local culture. Technology integration, such as interactive simulations, multimedia presentations, and animated videos, can help bridge the gap between theory and practice, making it easier for students to understand concepts. Thus, students will be more involved and motivated in the learning process (Wardany et al., 2024).

Learning media has an important role in creating an interesting and innovative learning process. This media serves as a means to convey messages from teachers to students in a way that can stimulate their thoughts, emotions, attention, and interest in learning. With the right media selection, the learning process can be more effective and interesting, encouraging students to participate more actively. The integration of technology in learning media not only facilitates understanding of the material, but also helps students link theory with practice in everyday life. This is especially important in science learning, where interactive simulations and visualizations can make it easier for students to understand abstract concepts (Wardany et al., 2024).

Learning using interactive media allows students to focus on various elements, such as audio, animation, video, and text, so they can interact directly with the features provided. Animated video is an audiovisual media that utilizes the senses of sight and hearing. By using animated videos, students can rely on both senses to understand learning materials more effectively. Given that science subjects often contain abstract concepts, the use of animated videos can help prevent student misunderstanding of the material being taught (Namri et al., 2023). Video-based learning media helps teachers deliver subject matter in a more interesting way, so that the classroom atmosphere becomes more dynamic and less boring. Animation media has an important role, especially for school children who have high curiosity. Animation can make it easier for students to understand complex concepts while increasing their interest in the topic being studied. In addition to providing different entertainment, animation media is also able to convey important messages in learning, which in turn can increase student activeness in the learning process (Agustiningrum et al., 2023).

Natural Science is one of the branches of science, apart from Physics and Chemistry, which has an important role in the world of education. Because of its significant role, science is taught at almost every level of education, from elementary school to high school. Science includes various materials, one of which is the human organ system. This material aims to enable students to understand the function and role of organ systems in the body. Organ systems consist of a number of organs that work together to support life processes, as well as interact with other organ systems. All these systems together form one whole organism. Some of these organ systems include the respiratory, digestive, excretory, and circulatory systems. (Sulistyanto & Agung, 2015).

In previous studies using animated video learning media on Islamic cultural history material had a good effect on increasing student motivation. From the results of research that has been done, it is found that animated video learning media can increase student motivation in learning Islamic cultural history material with good results (Erfandi & Arfah, 2022). Previous research using animated video media in Pancasila and citizenship education subjects applied in grade 7. In the study, it was found that animated video learning media had an effect in increasing student motivation as indicated by the statistical results of the independent t-test which showed a good increase in the application of animated video media (Martina, 2024). In previous research examining the use of animated video media to increase motivation to learn history in high school students showed good results. The results showed a good increase in student motivation from the results of the history teacher interview who argued that there was student interest in animated videos because of the visual display to facilitate learning (Angela & Triadi, 2022).

From some of these studies, it can be seen that animated video media has a positive impact on student learning motivation in several subjects, but the use of animated video media in learning science, especially human organ system material, has not been widely studied. So, this research has a novelty that examines the use of animated video learning media to increase the motivation to learn science, especially on the material of the human organ system that has not been widely researched. This research is expected to broaden the author's insight and understanding of the importance of using science learning media, especially on the material of the human organ system among students. This research is also expected to provide useful skills in facing the challenges of the modern world and enrich the researcher's personal knowledge. For the place of research,

these results can be a useful source of information to face the development of an increasingly advanced era. The results of this study are expected to be a valuable reference in the academic world, support future research, and contribute to the development of information technology in science.

RESEARCH METHODS

This research uses descriptive qualitative methods. According to Sugiyono (2014), qualitative methods are research methods used to examine the conditions of natural objects, data analysis is inductive, and research results emphasize meaning rather than generalization. Qualitative methods are used to obtain in-depth data, data that contains meaning. Descriptive research is a type of research that describes or illustrates a problem. Descriptive research aims to describe a population, situation or phenomenon accurately and systematically (Fiantika, et al., 2022).

The object of this research is 8th grade students with a total of 32 students in Nasional Junior High School Malang who have participated in science learning in the organ system chapter using animated video media. The research data were collected using an instrument in the form of a questionnaire, which was designed to measure students' learning motivation when using animated video media and when not using animated video media in learning science, especially organ system material. The questionnaire contains 12 closed questions. Each question in the questionnaire is prepared based on the learning motivation indicators formulated by Uno (2014). The statements presented in the questionnaire shown in Table 1. Each statement in the questionnaire was structured with four answer options, namely “Strongly Agree”, “Agree”, “Disagree”, and “Strongly Disagree”. These options allow students to convey their level of agreement. These choices allow students to convey their level of agreement with the statements proposed in a clear and measurable way.

Table 1. Indicator and Questionnaire

No	Indicator	Statement in the Questionnaire
1	The desire and desire to succeed	I think the organ system material is very difficult to understand
		I am more motivated to follow the learning process when using visual media in the form of animated videos
2	The existence of encouragement and needs in learning	I like learning biology with the lecture method
		Visual media in the form of animated videos can help easily recall the organ system material that I have learned
3	The existence of future hopes and ideals	I am very excited to learn when using visual media in the form of animated videos when organ system material
		Visual media is very helpful in following the biology learning process
4	The existence of appreciation in learning	Visual media in the form of animated videos has a positive effect on the learning process to increase motivation
		I feel valued when given the opportunity to discuss the content of the animation video and relate it to the subject matter.
5	The existence of interesting activities in learning	I like biology lessons

		I like learning biology using visual media in the form of animated videos
6	The existence of a conducive learning environment, thus enabling a student to learn well	I am more active in discussing in solving problems when using visual media in the form of animated videos
		I find it easier to understand organ system material using media than not using media.

RESEARCH RESULT AND DISCUSSION

Based on the results of questionnaire respondents who have been distributed to 8th grade students with a total of 32 children randomly obtained, students really like and are excited when learning using animated video media. Students become more motivated in learning and following biology learning on human organ system material. The questionnaire results are shown in the figure 1. The Figure 1 shows 46.9% of students answered "agree" which means that students are motivated in learning organ systems by using visual media in the form of animated videos. There were some students who answered "strongly agree" and few students who answered "disagree". It can be concluded that most students are motivated during the learning process when using visual media in the form of animated videos

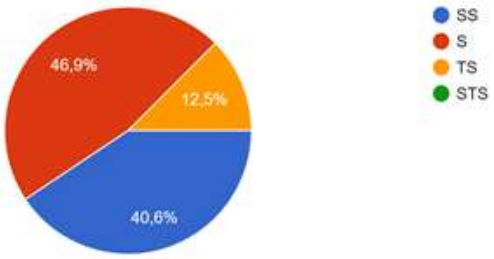

Figure 1. Diagram of I am more motivated to follow the learning process when using visual media in the form of animated videos

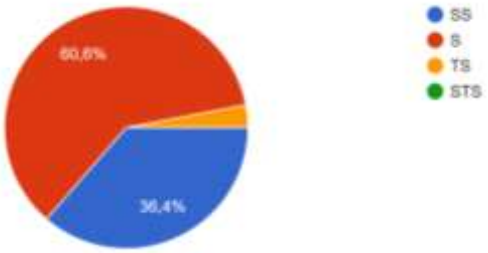

Figure 2. Diagram of visual media in the form of animated videos can help easily recall the organ system material that I have learned

The Figure 2 shows that most students gave a positive response to the use of animated videos that can help students easily remember human organ system material. It can be seen from these results that most students answered "agree" by 60.6%. There were several students who answered "strongly agree" and only a small number of students who answered "disagree." Based on these data, it can be concluded that students responded positively to the use of animated videos. Based on this data, it can be concluded that students feel helped in remembering human organ system material by using animated videos.

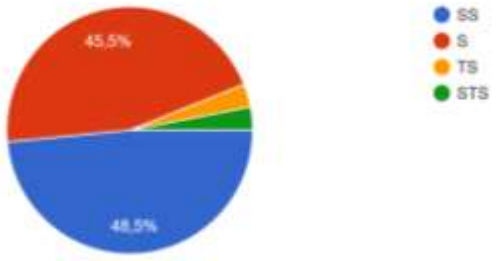

Figure 3. Diagram of i am very excited to learn when using visual media in the form of animated videos when organ system material

The Figure 3 shows that most students gave positive responses to the statement that I was very excited to learn when using visual media in the form of animated videos when the organ system material. This can be seen from the percentage of students who answered "strongly agree" by 48.5% and "agree" by 45,5 %. Only a small percentage of students answered "disagree". This response shows that the majority of students feel that animated video media is an interesting learning media. Animated videos can present information visually and dynamically, thus making students more motivated to learn so that they can more easily understand the concepts presented. The Figure 4 shows that most students gave positive responses to the statement Diagram of visual media in the form of animated videos has a positive effect on the learning process to increase motivation. This can be seen from the percentage of students who answered "agree" by 54.5% and "strongly agree" by 42.4%. Only a small percentage of students answered "disagree". This response shows that the majority of students feel that animated video media increases their learning motivation in the learning process.

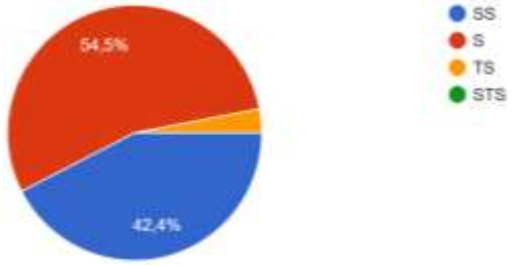

Figure 4. Diagram of visual media in the form of animated videos has a positive effect on the learning process to increase motivation

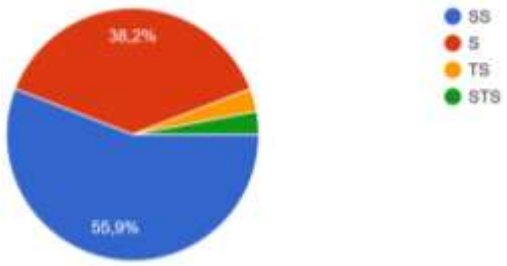

Figure 5. Diagram of i like learning biology using visual media in the form of animated videos

The Figure 5 shows that most students like biology lessons on human organ system material with the help of visual media in the form of animated videos. It can be seen from these results that most students answered "strongly agree" by 55.9%. There were several students who answered "agree" and only a small number of students who answered "disagree". Based on these data, it can be concluded that students feel happy learning biology on human organ system material using animated video media.

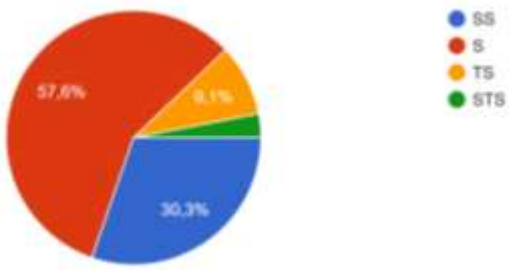

Figure 6. Diagram of i am more active in discussing in solving problems when using visual media in the form of animated videos

The Figure 6 shows that most students can be active in learning the biology of human organ system material with the help of visual media in the form of animated videos. It can be seen from these results that most students answered “agree” by 57.6%. There were several students who answered “strongly agree” and only a small number of students who answered “disagree”. Based on these data, it can be concluded that students can actively discuss when learning the biology of the human organ system using animated video media. Use of animated video can create a conducive learning environment so that students are comfortable when learning which in turn makes students more active in discussing and solving problems.

Learning animation media is media that contains a collection of images that are processed in such a way as to produce movement and are equipped with audio so that they seem alive and store learning messages (Alannasir, 2018). With the use of learning animation videos, it can facilitate the learning process, and make students motivated in learning (Dwanda Putra et al., 2024). The results of the diagram above show that visual learning media in the form of animated videos can motivate grade 8 junior high school students in learning, especially in human organ system biology material. These results can be seen from the respondents 32 students with many students who answered “strongly agree” and “agree” in the use of animated video media on human organ system material to foster student motivation. These results are in line with research (Alannasir, 2018) which shows that the use of animated video media can increase student learning motivation in the high category, namely 63.33%. From the results of other studies conducted by (Dwanda Putra et al., 2024) proves that the presence of animated video media has a greater impact in motivating students than the learning method using books. The use of animated videos in learning not only provides an increase in student interest but also deepens their understanding of the material presented. With animated video media, the information conveyed becomes more realistic and real, so students can more easily understand and internalize the concepts taught.

The results of another study conducted by (Angela & Triadi, 2022) showed that the use of animated video media in the learning process can motivate students in learning because students become more interested and easier to understand when learning is done using animated video media. In addition, research from (Martina, 2024) also showed good results in learning using animated video media. By using a comparison of two classes, namely the control class applying the use of images and the experimental class applying the use of animated videos, it was found from the study that the class using animated video media had very high student motivation results because students became enthusiastic and excited in participating in the learning that was carried out. From existing research has results that are in line with the results we obtained, that visual media in the form of animated videos can motivate students well in learning, because students become more interested and not bored to understand the material being taught. Therefore, animation plays a role in the field of education to improve the quality of teacher learning in the classroom. There are several roles of animation in learning, including 1) it can convey a concept visually so that students can more easily understand the material; 2) it can attract students' attention easily; 3) animation can stimulate students' thinking to be more memorable; 4) visual and dynamic offerings presented in the video can facilitate the process of applying concepts or demonstrations (Harsidi, 2009).

CONCLUSION AND RECOMMENDATION

A. Conclusion

Based on the results of data analysis obtained through questionnaires distributed to 8th grade students in one of junior high schools in Malang City who have participated in learning using conventional methods and using animated video media, it can be concluded that the use of animated videos has a positive influence on student learning motivation, especially in science learning material on human organ systems. Students feel more excited about learning when using animated video media. This shows that animated video-based learning

media is more effective in increasing students' learning motivation which is expected to have a positive effect on their learning achievement.

B. Recommendation

Based on the research results that have been obtained, researchers can provide suggestions for further research to explore the effect of using animated videos in learning in other subjects by involving more variables. This will provide a more comprehensive picture of the effect of animated video learning media on student achievement.

ACKNOWLEDGEMENT

The preparation of this article is inseparable from the help, support, and guidance of various parties who sincerely made valuable contributions at every stage of the research process until writing. We would like to express our deepest gratitude to:

1. Mrs. Sukma Putri Riyanti, S.Pd, as the supervising teacher, who patiently provided guidance, advice, and support during the implementation of research at school. Her direction is very meaningful for the development of our abilities in the world of education.
2. The students of 8th grade in Nasional Junior High School Malang, who with enthusiasm and learning spirit have become an important part of this research. Without their active participation, this research would not have been possible.

REFERENCES

Alannasir, W. (2018). Pengaruh Penerapan Media Animasi Terhadap Motivasi Belajar Dalam Pembelajaran Ipa Siswa Kelas Iv Sd Inpres Sudiang. *DIKDAS MATAPPA: Jurnal Ilmu Pendidikan Dasar*, *1*(1), 23. https://doi.org/10.31100/dikdas.v1i1.133.

Angela, V. F., & Triadi, D. (2022). Penggunaan Media Video Animasi untuk Meningkatkan Motivasi Belajar Sejarah pada Siswa SMA Isen Mulang Palangka Raya Kalimantan Tengah. *Jurnal Pendidikan Dan Kewirausahaan*, *10*(2), 441–451. https://doi.org/10.47668/pkwu.v10i2.343.

Dwanda Putra, L., Triana Assyifaningtyas, A., Jannah, M., & Arya Pangesty, R. (2024). Pemanfaatan Video Animasi Sebagai Sarana Peningkatan Motivasi Belajar di Sekolah Dasar. *NUSRA: Jurnal Penelitian Dan Ilmu Pendidikan*, *5*(3), 1616. https://doi.org/https://doi.org/10.55681/nusra.v5i3.3327.

Erfandi, E., & Arfah, M. T. (2022). Penggunaan Media Pembelajaran Video Animasi Dalam Meningkatkan Motivasi Belajar Siswa Mata Pelajaran Sejarah Kebudayaaan Islam di MTS DDI Walimpong. *Ata'Dib Jurnal Pendidikan Agama Islam*, *3*(2), 17–33.

Fiantika, F. R., Wasil, M., Jumiyati, S., Honesti, L., Wahyuni, S., Mouw, E., Jonata, Mashudi, I., Hasanah, N., Maharani, A., Ambarwati, K., Noflidaputri, R., Nuryami, & Waris, L. (2022). *Metodologi penelitian kualitatif*. Padang: PT Global Eksekutif Teknologi.

Uno, H. B. (2014). *Teori Motivasi dan Pengukurannya: Analisis di Bidang Pendidikan*. Jakarta: Bumi Aksara.

Martina, M. (2024). Penggunaan Media Animasi Terhadap Motivasi Belajar Siswa Pada Mata Pelajaran Pendidikan Pancasila Ewarganegaraan Kelas VII Di SMP Negeri 1 Lemahabang Karawang. *Jurnal Wahana Pendidikan*, *11*(2), 295. https://doi.org/10.25157/jwp.v11i2.13340

Namri, A. I., Kurniadi, W., & Suhardi, S. (2023). Multimedia Interaktif IPA: Pengembangan Media Pembelajaran pada Materi Sistem Organ Tubuh Manusia. V*enn: Journal of Sustainable Innovation on Education, Mathematics and Natural Sciences,* 2(3), 104-114.

Nisa'i, S. H., Syofyan, H., Hotimah, U., & Nurhayati, R. (2022). Penggunaan Metode Ceramah dalam Pembelajaran IPA di Kelas Rendah dan Tinggi. In *Seminar Nasional Ilmu Pendidikan dan Multi Disiplin* (Vol. 5, No. 01).

Nurfadhillah, S., Ningsih, D. A., Ramadhania, P. R., & Sifa, U. N. (2021). Peranan media pembelajaran dalam meningkatkan minat belajar siswa SD Negeri Kohod III. *Pensa*, *3*(2), 243-255.

Rahman, S. (2022). Pentingnya motivasi belajar dalam meningkatkan hasil belajar. In *Prosiding Seminar Nasional Pendidikan Dasar*.

Sugiyono. 2014. *Memahami Penelitian Kualitatif*. Bandung: Alfabeta.

Wardany, K., Mariana, E., Kinasih, A., & Khoirudin, M. (2024). Pengembangan Media Pembelajaran Video Animasi pada Mata Pelajaran IPA untuk Meningkatkan Motivasi dan Hasil Belajar Siswa. *Jurnal Pendidikan Mipa*, 14(4), 872-878.