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THE ROLE OF VIDEO MEDIA TO IMPROVE LEARNING RESULTS FROM LEARNING THE FUNCTIONS OF PLANT PARTS IN CLASS IV STUDENTS AT SDN PERUMNAS NEUHEUN

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ABSTRACT

The challenge to increase student learning success, especially in the field of science, is related to the presence of students and their learning methods. Science learning contains a wealth of information as reality, standards, ideas, and cycles and has a logical mentality. Basically, science is very close to everyday life. It takes a lot of effort and a lot of success to solve problems that arise, which require thought, reflection, and hard work. Apart from this achievement, the remainder has not provided learning outcomes that are in accordance with minimum completeness. Through effective learning videos to achieve results in accordance with the objectives and as a teacher's effort to increase the success of the learning process. By applying video media to material on the functions of plant parts, optimizing learning media is one way to increase the success of learning science. The purpose of this writing is to describe the application of video media-based science learning with material on the function of plant parts to improve the learning outcomes of fourth-grade students at SDN Perumnas Neuheun. The method used is descriptive qualitative. Through observation, researchers collect data through direct observation by students. The results of the study show that implementing video learning can improve student learning outcomes.

Keywords: *Media Videos, Science, Learning Outcomes.*

1. INTRODUCTION

In fact, teachers have not fully utilized technology in their learning materials. This is due to the inability of teachers to develop more creative technology-based learning materials. coupled with the teacher's limited time in making teaching materials. In addition, students reported that when studying, they often used printed books making it difficult for them to understand or remember the abstract material taught by the instructor. The development of learning materials that are interesting and easy to understand is necessary considering this problem. It is hoped that the creation of teaching materials in the form of videos can ease student learning difficulties.

Natural science (IPA) is a science that is relevant to human life. directly and acquire knowledge of the entire universe. According to Dewana, IPA has a scientific outlook and contains a collection of knowledge in the form of facts, principles, concepts, and discovery procedures (Dewana, 2017). In essence, IPA is very similar to everyday life. In Indonesia, science is one of the main subjects taught in the school curriculum, even at the SD/MI level (Ketuko et al., 2023). Science learning subjects are directly related to everyday life, so students must learn science from elementary to high school and so on (Rahma in Tapo et al., 2023). Science is one of the subjects taught in elementary schools as part of the framework.

Everyone in the teaching and education profession faces the challenge of increasing learning success, especially in the sciences. It takes a lot of effort and a lot of success to solve the problems that have arisen, which require thought, reflection, and hard work. Despite these accomplishments, they haven't completely satisfied their customers. The issue of how teachers provide learning that allows students to carry out an effective learning process or achieve results in accordance with the objectives is fundamental in efforts to increase the success of the learning process.

Students are required to know the function of plant parts in science learning. However, the majority of teachers have not used instructional media in all science lessons, resulting in low student learning outcomes. Even though there are various kinds of media that can be used to convey information, including pictures to study plant parts, there are still many teachers who use the lecture method without using any media, and student learning outcomes will be influenced by question and answer.

Learning to use video media to optimize learning media, especially plant parts, is one way to increase the success of learning science. Image media is the media used to send messages from sources to recipients. By using video media, teachers can invite students to be more active and think critically about plant parts, which can help them learn more effectively.

Video media is one of the information and communication technology media that can reach a wider audience and is the most widely used. Video content can help students learn in class, especially in the lower grades of elementary school. Daryanto argues that video is an example of audio-visual media which refers to learning materials that can be seen with the eyes and heard with the ears (Daryanto, 2018). Videos work well as learning tools for large groups, individuals, and classes (Hadi, 2017).

Sadiman stated that students are expected to be able to receive, understand, and remember learning messages with these two components (Sadiman, 2020). The purpose of audio-visual media is to (1) clarify the presentation of messages so that they are not too verbal; (2) overcome the constraints of space, time, and senses; and (3) use educational media appropriately and in various ways can

overcome the passive nature of students (Yuanta, 2020). Video media can be used to help students learn in class, especially in lower classes such as elementary schools.

The purpose of this study was to compare and contrast student learning outcomes before and after the application of a video media-based simulation model to ascertain whether this would result in an increase in student learning outcomes. because according to researchers, this model greatly contributes to the enthusiasm and involvement of children in learning. Students will be more motivated to learn if the video media they watch is displayed in a more interesting way, which will have an impact on their learning outcomes. Therefore, the use of instructional media can improve student learning outcomes and make the learning process more interesting.

This is in accordance with Maretyaningrum's research which found that although elementary students must in a concrete or more real way, video media has not been widely used in elementary schools so it has an impact on student learning outcomes that are not good (Maretyaningrum in Mahmudah & Fauzia, 2022). As a result, this video media is done very well to help students understand the material, especially with direct simulations that will help them remember the learning process (Mahmudah & Fauzia, 2022).

2. LITERATURE REVIEW

The development of video media as a medium for learning natural sciences has had a positive impact on improving the learning outcomes of Grade IV elementary school students at SDN Perumnas Neuheun by explaining material about the functions of plant parts.

According to Sudirman media is a tool used by teachers in the teaching and learning process, the word media comes from Latin and is the plural form of the word medium which literally means intermediary or introduction. Media plays a very important role in the learning process(Permana & Indihadi, 2018).

Video media is one of the information and communication technology media that can reach a wider audience and is the most widely used. Video content can help students learn in class, especially in the lower grades of elementary school. According to Daryanto, video is an example of audio-visual media which refers to learning material that can be seen with the eyes and heard with the ears. Videos work well as learning tools for large groups, individuals, and classes(Hadi, 2017).

According to Anaky, the advantages and disadvantages of video-based learning are as follows: The advantages of video media include presenting learning objects or messages realistically, so they are very good for enriching learning experiences. It also has its own charm and can be a trigger or motivator for students to learn. In addition, it is also very good for psychomotor learning, can reduce learning boredom, especially when combined with lecture teaching techniques and broadcast problem discussions, and can improve memory or retention of learning objects that students are studying. It's hard to get to because it requires electrical energy, making it impossible to revive everywhere, and the unidirectional nature of communication prevents it from offering opportunities to buy feedback (Purwati B, 2015).

According to Oemar learning media are tools, methods, and techniques used in order to make communication and interaction more effective between teachers and students in the process of education and teaching in schools (Oemar in Muhson, 2010). Meanwhile, Suprapto states that learning media is an effective auxiliary tool that can be used by teachers to achieve the desired goals (Suprapto in Arsyad, 2017).

Natural Sciences (IPA) is a subject related to systematic knowledge about nature. As well as being a collection of facts, ideas, or principles, science is also a process of discovery. Science learning in elementary schools is expected to be a vehicle for students to gain knowledge both about themselves and nature (Anggraeni, 2019).

Plants or plantae are eukaryotic organisms with many cells, a cell wall, and chlorophyll causing the plant to photosynthesize as a result. Chlorophyll, which plants use to store food, is what gives plants their green color. There are about 400,000 plant species that are producers in the food chain (Lala, 2023).

1. METHODS

The method used is descriptive qualitative. In this study, researchers relied on observations or observations of researchers to collect data through direct observation in the field. In the sense that researchers do not participate in these activities, then the observations are passive participatory observations (passive participation). Grade IV students at SDN Perumnas Neuheun grade IV were used as the subjects of this study. The research data is a learning process about natural disasters based on video media.

3. RESULTS & DISCUSSION

The wrong of learning success is the use of video-based learning media. Through the process of character education, students can learn and improve student learning. The learning media used in this research process is learning about the functions of plant parts using video media in class IV SDN Perumnas Neuheun.

Learning natural science with material on the functions of plant parts based on video media in class IV SDN Perumnas Neuheun. By explaining the contents of the video and also showing videos about the functions of plant parts. In the video, there is an explanation about the meaning of plants, plant parts, and the functions of plant parts

The presentation and explanation of natural science subject matter regarding the functions of plant parts contained in the video that was shown to class VI students at SDN Perumnas Neuheun as follows:

1. Definition of plants

Plants are living things that can eat, move, grow, breathe, and reproduce. For all its activities, plants are equipped with various parts that have certain functions (Nugroho, 2015).

2. Plant parts

The parts of the plant consist of roots, stems, leaves, flowers, fruits, and seeds (Nugroho, 2015).

3. Functions of plant parts

a. Root

The root is the place where water and food or nutrients enter the plant. Therefore, the roots are in the ground and the root tips are tapered to penetrate the soil. Root branches contain root hairs through which water and nutrients enter. At the end of the root,

there is a root cap which is used to protect when the roots penetrate the soil. Roots are divided into two namely, fibrous roots and taproots. 1) Taproot is a branched root; each branch is smaller than the main root. Single roots are usually owned by plants in two pieces (dicots), such as pea roots. 2) Fibrous roots are roots that do not have a main root, all roots come out of the base of the plant, and the size of the branches does not vary and does not shrink. Fibrous roots are owned by plants that have one piece (monocotyledons), such as the roots of papaya trees. The benefit of branched roots is to be able to absorb nutrients and water in large quantities so that the plant will be stronger and support the stem. There are also special roots. Special roots are roots that function to be able to adapt to their environment. There are 4 types of special roots, namely hanging roots, attached roots, supporting roots, and respiratory roots (Nugroho, 2015).

b. Stem

Stems are divided into 3, namely 1) Cambium stems are stems that grow outwards to make brown skin, like manga trees, these stems also grow inward and make them bigger. 2) Stems are soft and juicy, like spinach. 3) Stems of grass, which have segments and are often hollow. Stems are like channels, water, and nutrients absorbed by the roots are distributed to the leaves and then the food source from the leaves is distributed to all other parts of the plant. Stems also support plants to seek sunlight. Some stems are also a place to store plants, such as sugar cane (Nugroho, 2015).

During the learning process. the seriousness of students' respond to the material shows this. When the teacher monitors students during the teaching and learning process and when the teacher displays videos related to the material, they have very high activity and enthusiasm. The positive attitude that students have in responding or responding to the material presented.

According to research findings, educators have a strong desire to create innovative and effective learning materials to enhance student engagement, creativity, and achievement. However, it supports Natural Science (IPA) learning material for students in making it easier for students to understand learning material about the functions of plant parts.

Student learning outcomes were obtained from the teaching and learning process in class through an assessment of knowledge of learning outcomes, from the results of research that had been carried out by researchers using video media in natural science subjects on the function of plant parts for fourth-grade students at SDN Perumnas Neuheun showed an increase in student learning outcomes. Learning is an activity carried out by a person in order to have competence in the form of knowledge and skills needed. Learning can also be viewed as an elaboration process in an effort to search for meaning carried out by individuals, the learning process is basically carried out to improve personal abilities or competencies.

Thus, according to the information above, the researcher has proven in the study that fourth-grade students' study well on the material functions of plant parts in Natural Sciences (IPA) subjects so that student learning outcomes increase with an average obtained of 2.47 with a completeness percentage of 77 .66% and with an average percentage of 95.2 100% completeness. The results of the increase in the acquisition of scores showed that the application of video media can improve student learning outcomes. From the explanation above, the researcher concluded that fourth-grade students at SDN Perumnas Neuheun had studied well and improved their learning outcomes in Natural Sciences (IPA) material about the functions of plant parts.

4. CONCLUSION

The existence of video media is very helpful for teachers in conveying material in the learning process because the role of learning media is as a bridge of communication between teachers and students. And can also increase, the seriousness of students in responding to the material. When the teacher monitors students during the teaching and learning process, they have very high activity and enthusiasm. The positive attitude that students have in responding or responding to the material presented. Based on the design of a good learning device based on video media, the learning process is successful according to the target, and also by applying video media-based learning media can improve learning outcomes for class IV students at SDN Perumnas Neuheun in learning natural science material about the functions of plant parts. Student learning outcomes in the learning process have increased. Student learning outcomes with an average score of 85 and percentage of completeness is 68.13% and the process of learning activities has increased with total score, 1172 the average value is 95.22 with the percentage of completeness increasing to 100%. Likewise with the activities of students and teachers have increased.

5. REFERENCES

Anggraeni, S. (2019). Ilmu Pengetahuan Alam. In T. Rochman (Ed.), *Risalah muslim* (II). Pusat Perbukuan Departemen Pendidikan Nasional.

Arsyad, A. (2017). Media pembelajaran. In A. Rahman (Ed.), Rajawali Pers.

Daryanto, J. (2018). Pengembangan Media Pembelajaran Tembang Macapat Berbasis Video Interaktif. *Jurnal Pendidikan Dasar*, *3*(2), 59–65.

Dewana, A. (2017). Pengaruh Model Problem Based Learning terhadap Hasil Belajar Ipakelas Iv Sd. *Jurnal Pendidikan Dan Pembelajaran*, *6*(4), 9–15.

Hadi, S. (2017). Efektivitas Penggunaan Video Sebagai Media. *Prosiding TEP & PDs*, *1*(15), 96–102.

Indriyani, W. T., Muswita, M., & Sanjaya, M. E. (2022). Pengembangan E-kamus Biologi Materi Klasifikasi Tumbuhan Dicotyledoneae Pada Kelas X SMA Negeri 4 Muaro Jambi. *Biodik*, *8*(2), 62–72.

Ketuko, N. M., Herliyani, M., Bunga, D., & Helvina, M. (2023). Penerapan Media Gambar dalam Upaya Meningkatkan Hasil Belajar IPA Materi Bagian-Bagian Tumbuhan dan Fungsinya pada Siswa Kelas IVB. *Journal on Education*, *5*(3), 1–7.

Mahmudah, S., & Fauzia, F. (2022). Penerapan Model Simulasi Tentang Pembelajaran Mitigasi Bencana Alam Gempa Bumi Berbasis Video Animasi Untuk Meningkatkan Hasil Belajar Siswa. *Jurnal Basicedu*, *6*(1), 633–645.

Muhson, A. (2010). Pengembangan Media Pembelajaranberbasis Teknologi Informasi. *Jurnal Pendidikan Akuntansi Indonesia*, *8*(2), 21–48.

Nugroho, A. S. (2015). Analisis keanekaragaman jenis tumbuhan

berbuah di hutan lindung Surokonto, Kendal, Jawa Tengah dan potensinya sebagai kawasan konservasi burung. *Jurnal Penelitian Hutan Dan Konservasi Alam*, *1*(3), 472–476.

Permana, D., & Indihadi, D. (2018). Penggunaan Media Gambar terhadap Pembelajaran Menulis Puisi Peserta Didik. *PEDADIDAKTIKA: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, *5*(1), 193–205.

Purwati B. (2015). Pengembangan Media Video Pembelajaran Matematika dengan Model Assure. *Jurnal Kebijakan Dan Pengembangan Pendidikan*, *1*(3), h. 42-47.

Sadiman, A. (2018). *Media Pendidikan (Pengertian, Pengembangan, Dan, Pemanfaatannya)*. PT Rajagrafindo Persada.

Yuanta, F. (2020). Pengembangan Media Video Pembelajaran Ilmu Pengetahuan Sosial pada Siswa Sekolah Dasar. *Trapsila: Jurnal Pendidikan Dasar*, *1*(02), 91–100.