

# Analysis of the Use of Learning Media on the Learning Interest of Learning Science Students and Environmental Themes

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**Abstract:** Learning media is an important element in the educational process that affects the effectiveness of information delivery and student understanding. This study aims to analyze the use of science and technology learning media; analyze students' interest in learning about the use of science and technology learning media; and analyze the role of the use of learning media needed in science and science learning grade IV at Reban Elementary School, Reban District, Batang Regency. This study uses a descriptive qualitative method. The subjects of the study were 25 grade IV students at SD Negeri Reban. Data collection uses observation, interview, questionnaire and documentation techniques. This study uses a data validity technique in the form of a credibility test with technical triangulation. Through the analysis process of the Miles and Huberman Model, it was shown that the use of learning media applied in grade IV at SDN Reban included PPT, YouTube videos, Quizizz, concrete objects and media made using objects around it. The correct selection and use of media will affect students' interest in learning. Various kinds of learning media that have been applied in grade IV at SDN Reban have increased students' interest in learning. Behaviors that show student interest are feeling happy, feeling comfortable, paying attention to the teacher, being more active in learning, enthusiastic, taking notes on important things related to the material, and following lessons well and in an orderly manner. Learning media has succeeded in playing an important role in the learning process. The presence of learning media has a significant impact on learning, including making students enthusiastic; arousing students' interest; fostering motivation to learn; students become more active in learning; making it easier for students to understand the concept of the material; receive information more effectively and efficiently, overcome space and time limitations, and apply technology to students.

**Keywords:** Learning media; learning interest.

## Introduction

Education is the process of acquiring knowledge, skills, and understanding related to life. Education plays an important role in the progress of a nation by increasing individual intelligence, which in turn enriches the knowledge, skills, and abilities of the community (Purnadewi et al., 2023). The goal of

National Education in Indonesia is to produce people who are religious and moral, able to master knowledge and skills, physically and spiritually healthy, have good personalities, and are responsible (Setiyorini & Setiawan, 2023). Education in Indonesia is experiencing continuous developments and challenges, such as improving the quality of education, increasing accessibility, and adapting to global developments. The

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government continues to strive to improve and improve the education system in Indonesia so that it can produce quality human resources who are able to compete at the international level.

The learning process is a method designed to develop and improve the quality of human resources in the school environment by not only acquiring knowledge and skills, but also being guided to hone their potential to the maximum, so that they can contribute effectively to society (Praptaningrum et al., 2023). A good learning process is interactive, fun, challenging, motivating, and tailored to students' needs and provides a wider space for students to develop their fitness and independence (Kuntadi & Hidayat, 2022). At the primary school level, some subjects are difficult to understand because their delivery is formal, theoretical and boring (Sarifah et al., 2022). In research conducted by Aditya and Siti stated that most of the factors that cause a decrease in interest in learning are laziness that appears in students (Hartini & Faridah, 2022).

The world of education is currently competing to create a fun learning atmosphere by using learning media. Learning media in the world of education is an important tool to support the teaching and learning process (Suing et al., 2023). The main thing that is most expected in the implementation of education in schools is the success of the learning process (Brunel et al., 2023). To achieve success in learning there are many factors, one of which is the media (Nurmayanti, 2022). The use of learning media in the teaching and learning process helps create a more interesting, meaningful, and interactive learning experience. The media is currently considered a learning tool to convey educational messages and is a component of educational activities (Rosmana et al., 2023). The existence of learning media that is very varied today is a form of progress in the world of education to improve the quality of education that is more adapted to current developments.

Advances in technology and the latest learning methods provide various new opportunities in the world of education, on the other hand, this development is also a challenge for teachers to take advantage of these opportunities effectively (Lutfi & Hidayah, 2021). Technology is actually not something new to today's society, but further studies are needed to understand how technology can be effectively integrated in the learning process (Prianggita & Meliyawati, 2022).

Along with the development of technology in the world of education, teachers who are able to manage the classroom are also needed. Teachers are the key holders of the success of learning implementation which will later affect educational goals. This is in accordance with Law No. 14 Article 8 of 2005 concerning teachers and lecturers which emphasizes that teachers must have

academic qualifications, competencies, educational certificates, physical and spiritual health, and have the ability to realize national education goals. It is explained in Law No. 14 Article 2005 that teacher competence as referred to in Article 8 includes pedagogical competence, personality competence, social competence and professional competence obtained through professional education. Lack of competence and experience of teachers in using technology leads to a decrease in student learning motivation (Abdullah et al., 2022).

Teachers are an important element in implementing learning strategies. Along with the rapid development of technology, it is the teacher's duty to create learning with new innovations using creative learning media in the learning process (Yulianti et al., 2023). The success of learning implementation depends on the teacher's expertise in using techniques and tactics in the teaching and learning process. Failure to communicate in learning can also result in the material delivered by the teacher not being well received by students, even causing misunderstanding (Ismawati et al., 2022). As learning managers, teachers must be able to organize, explore various possibilities, and develop strategies that can increase student interest, motivation and learning outcomes (Rejkiningsih et al., 2023). The success of a teacher in carrying out learning is not only the mastery of the subject matter, classroom management, media or teaching materials used during learning, learning strategies and methods must also be considered. Teachers must also create conducive and fun learning conditions for students.

The success of teachers in implementing learning can be influenced by several factors. One of these factors is the teacher's factor in carrying out the learning process. The quality of learning in science and science subjects is highly dependent on the quality of teachers, especially on teachers' ability to use learning media (Wulandari & Mudinillah, 2022). The achievement of learning objectives cannot be separated from the role of teachers in bridging students' learning interests and facilitating students' learning needs (Mansur & Rafiudin, 2020). Interest in learning is associated with the influence of the environment that exists in the learning situation and certain stimuli that trigger interest in the learning situation (Nurdin, 2022). Students' interest in learning is evidenced by a feeling of joy when doing something that then gives positive results such as improving ability. Agreeing with Anisa, students tend to get bored when using printed books, which will reduce students' interest in learning (Izzah & Setiawan, 2023). Teachers need to use their creativity in choosing and determining learning media because media has a considerable impact on the student learning process

(Indriani & Desyandri, 2022). In its application, teachers can use learning media, such as video, audio, images, animation and interactive, to help students understand the science material being explained.

Currently, all subjects have used the help of learning media at the elementary, junior high, high school, and university levels. IPAS emerged when the Independent Curriculum was implemented. Curriculum changes can be an effort to improve the quality of education. Changes in the curriculum have a positive impact, one of which is the development of an increasingly advanced era (Setiyorini & Setiawan, 2023). Through the Decree of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia Number 262/M/2002 concerning Guidelines for the Implementation of the Curriculum in the Context of Learning Recovery. In the Independent Curriculum, science and social studies subjects are combined into Natural Sciences and Social Sciences (IPAS) subjects, with the hope of triggering children to be able to manage the natural and social environment in one unit.

SD Negeri Reban is a school that is classified as having adequate learning facilities and infrastructure. Previously, no researcher had conducted research on learning media in this school, especially grade IV which was the subject of his research. SD Negeri Reban has young teachers who are technologically literate, so researchers are very interested in conducting research at this school. Based on observations, during science and science learning activities in grade IV at SD Negeri Reban, Reban District, Batang Regency, the classrooms are good for the learning process, there are several learning support facilities such as whiteboards, tables, chairs, book storage cabinets and learning media. During the process of teaching and learning activities, teachers seem to use lecture methods, using concrete media available around them and learning resources in the form of books and the internet. The results of the initial interview conducted with the homeroom teacher showed that students tended to be busy during the process, but what was meant by busyness was more in the form of their enthusiasm and curiosity about the material presented. Students tend to ask each other questions with their classmates as a form of curiosity so that from this activity the teacher finds it difficult to control the class.

To overcome learning challenges, there needs to be a solution in learning media innovation (Satibi et al., 2023). The lack of diversity and innovation in the use of technology in the form of learning media as a means of supporting learning activities creates a number of new challenges for educational institutions (Rejekiningsih et al., 2023). Technology in learning media is believed to be able to solve problems and provide benefits for the

quality of learning (Tsuroyya et al., 2022). On the other hand, teachers have started to use technology-based media but have not been able to use it more widely for the learning process. In the interview session conducted with the fourth grade teacher, Mrs. Kusnul Fatimah explained that she has started using technology-based non-concrete media such as Power Point, YouTube Videos and Quizizz. When the researcher observed the learning, the class teacher was delivering science material and the students showed less interest in the learning process without using the learning media, which was shown by students chatting with their classmates, joking and doing other activities. However, in subsequent learning observations when teachers use learning media, there are several behavioral changes that lead to positive learning behaviors.

In elementary school learning for Natural and Social Sciences (IPAS), many practices are carried out to improve students' understanding, such as experiments, field observations and so on. Students need to increase their interest and motivation in learning to be able to understand science learning conceptually (Wahyuni et al., 2020). This activity is usually assisted by the use of learning media so that students can understand the concept of science and the science taught. When learning science in elementary school, you should use tools so that when explaining the subject matter, students understand and are more interested in learning science (Nasir & Jamiludin, 2023). In social knowledge, learning media is used as a stimulus to have skills in exploring the socio-cultural environment of the surrounding community in order to have good thinking skills and social skills so that they can coexist with the surrounding community (Logayah et al., 2023). To improve the quality of student resources, teachers must of course rack their brains to solve classroom problems such as lack of interest in learning.

Based on the discussion above, the researcher's objectives in carrying out this study are 1) analyzing the use of science learning media, 2) analyzing students' interest in learning about the use of science and science learning media, and 3) analyzing the role of the use of learning media needed in learning science and science grade IV at SD Negeri Reban, Reban District, Batang Regency. The results of this research can be an encouragement for teachers to continue to innovate in designing better quality learning media.

## Method

This study uses a qualitative method with a qualitative descriptive approach. The purpose of qualitative research is to obtain a holistic understanding of the phenomena experienced by participants in a

descriptive format (Sofiyana et al., 2022). This research was conducted at SDN Reban, Reban District, Batang Regency, which is located at RT 14 RW 3 Reban Hamlet. The researcher chose SD Negeri Reban as the location of the study because this school, especially grade IV, has active students, but when studying, these students tend to do other activities. The subject of the research was grade IV students of SD Negeri Reban. There are 25 students in grade IV, namely 13 boys and 12 girls. In this case, the researcher wanted to find out the use of learning media in the interest of learning science and science grade IV at SD Negeri Reban, Reban District, Batang Regency. The scheme of this research is as follows:

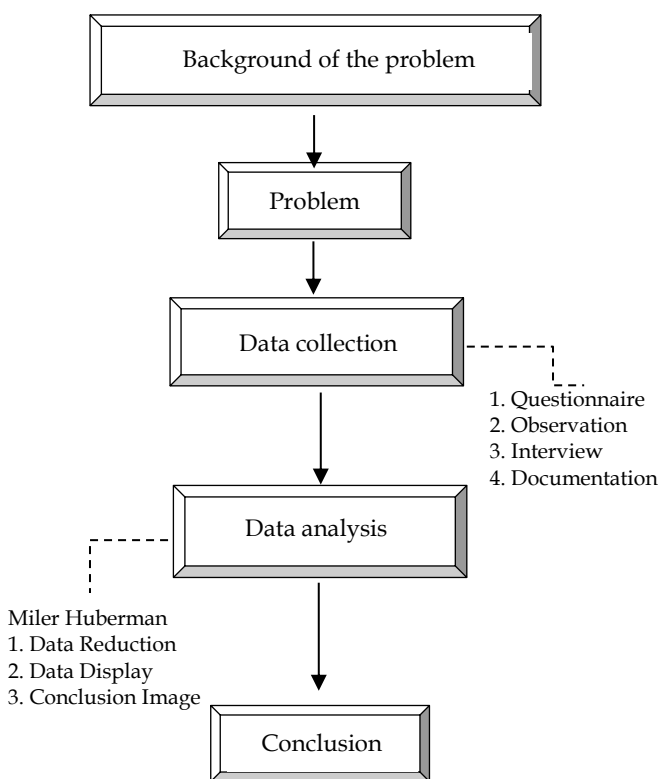


Figure 1. Research Scheme

In this study, data was obtained from data collection through observation, interviews, questionnaires and observations. Observations are made on pre-research and research that observes the learning situation. During the study, researchers interviewed school principals, researched and conducted interviews with grade IV students and teachers to obtain information. The researchers also created questionnaires for classroom teachers and grade IV students. During the study, the researcher obtained documentation in the form of documentation on the use of learning media and formative and summative values from classroom teachers. The researchers chose to use triangulation to test its credibility. Triangulation is a data collection

technique that combines various existing techniques and data sources (Abdussamad, 2021). The triangulation used is technical triangulation. Technical triangulation is done by examining the same source with different techniques. Later the researcher will conduct interviews, observations, questionnaires and documentation. The data analysis used in this study uses the Miles and Huberman model, namely data reduction, data display (data presentation), and drawing conclusions.

## Results and Discussion

There are various kinds of learning media that can be used in the world of education. This study collected data through interviews, questionnaires, observations and documentation. There is additional information through interviews and unstructured documentation that teachers have. The interview conducted with the grade IV teacher stated that he did not often prepare learning media during every science lesson. However, he prepares learning media when the material needs help in delivering it. Every time you study, teachers also open their laptops to explore knowledge other than the books they have.

The author conducted interviews with teachers with a total of 15 questions and interviews with students with 10 questions that can be said to represent the indicators of the problems asked. Interviews conducted by teachers explained that the existence of learning media has a significant impact on student learning development. Student activities in learning activities can be more directed and learning activities are more organized. According to what the class teacher said, according to the student representative in the interview, the student seemed happier when learning using media. Through observation activities, the author found differences in attitudes shown by students when using learning media and not using learning media. This observation activity resulted in the finding that physically students seemed interested in learning through the media shown through several activities and attitude changes. The teacher also showed the results of formative scores obtained by students when learning science in the form of practice questions. Students' formative grades show a lot of mastery of the material. From the results of the first semester summative assessment, 23 out of 25 students were declared to have completed the science and science score.

### Use of Learning Media

Educational media is designed to increase the effectiveness of communication between teachers and students, thus allowing for better interaction and a deeper understanding of the material in learning

activities (Nur Jannah, 2020). In the application of learning media by teachers every time they carry out teaching and learning activities on science materials, teachers often use learning media, both technology-based and media made from tools and materials around them. Technology-based media that have been implemented include Power Point (PPT), YouTube videos, and Quizizz. The teacher also makes media that come from concrete objects and the surrounding environment, such as boards that change the shape of objects and prove the properties of light. To make it easier for students to understand, teachers display pictures from the internet to provide knowledge to students about the material being taught, for example, in historical heritage materials, teachers display images and videos of temples, inscriptions and other relics.

The teacher explained through interviews that the use of learning media is very influential for teachers and students. For teachers, learning media has the benefit of facilitating the process of delivering material effectively and efficiently, not spending too much energy to explain at length through the lecture method which can actually make children bored. In line with the previous research statement, that the use of learning media can improve student learning outcomes because the media involves students creatively in the learning process to develop thinking skills (Wahyuningtyas & Sulasmono, 2020). The delivery of material using learning media is a bait so that students can be more active in discussing and have a high sense of curiosity. Chusnul said that in addition to building students' interest in learning, learning media can also increase understanding and present material in interesting and of course easy to interpret by students (Ma'rifah & Qohar, 2020). For students, the use of learning media is a special concern as conveyed through interviews by several student representatives and the results of questionnaire analysis. According to the results of the questionnaire evidenced by observations about the use of learning media, most students can understand how to use and how the media works. This makes learning more meaningful when students understand the use and how the media used.

#### *Learning Media Interest in Learning Science*

Interest has a crucial role in teaching and learning activities, because this is one of the main drivers that affect the success of the learning process (Anggita et al., 2023). In line with Anggita's opinion, Dalimunthe also revealed a very important factor in learning success, namely learning interest that allows students to gain knowledge and understanding of material from school (Dalimunthe et al., 2021). Learning interest is the desire to carry out learning activities to gain new information, knowledge or insights. Interest in learning will arise

when children are interested in something that is considered fun, exciting and not boring.

The learning media used by teachers also has an impact on students and also on learning. Teachers need to consider the compatibility between the chosen media and the material to be delivered, because not all media are suitable for the delivery of the material (Palullu et al., 2023). The selection of appropriate learning media will affect student involvement in the active process of teaching and learning activities in the classroom (Rohza & Montessori, 2022). Teachers need to understand the advantages and disadvantages of learning media based on students' learning styles, school conditions, infrastructure, and the ability to use media (Sugiyarto et al., 2021). In accordance with what Agustira and Rahmi said, the benefits of learning media are to attract students' attention, make it easier for students to understand learning, and provide a new atmosphere for students (Agustira & Rahmi, 2022). Maximum learning outcomes are not only achieved by students' interest in learning, but are influenced by the use of teachers' learning media as an external factor (Yeremia et al., 2023).

When students have a great interest in the lesson, they will focus more on following the learning flow and allow students to obtain maximum learning outcomes as said by (Hidayat et al., 2022). Students' interest in learning media has been shown through behavioral changes, such as feeling happy, comfortable, paying attention to teachers, being more active in learning, being enthusiastic, taking notes on important things related to the material, and following lessons well and in an orderly manner. Students show their activeness by actively discussing and asking questions. From the activeness of the students who are enthusiastic and arouse their curiosity which sometimes even causes the classroom atmosphere to be unconditional. However, in addition, teachers prefer this condition because students can show interest in the material when science learning is carried out. The use of Quizizz during learning evaluations is interesting to students, they compete for more points than their other peers. This motivates students to pay attention during learning. The behavior shown by the fourth grade students of SD Negeri Reban above is included in Rahmi's learning interest indicators, namely feelings of joy, student involvement, interest and attention of students (Rahmi et al., 2020).

#### *The Importance of Learning Media*

The existence of learning media provides assistance to teachers to teach subject matter to students. Firmansah said that one of the functions of learning media is to improve the quality of learning (Firmansah, 2023). Teachers as educators will make various efforts to

increase interest in learning science. One of these efforts is to use various kinds of learning media in science learning. The learning that students receive through the lecture method will only produce verbal understanding and sometimes only understand but cannot understand the concept of the material. Some students who have a visual learning style will find it difficult to understand the material presented and it will take time for these students to understand the material. Through media, teachers will explain the material through verbal language and then reinforce the concept through visual learning media so that it will be easier to receive the material. Learning media in the form of visuals such as YouTube videos, 2D and 3D images, as well as concrete media around it will provide understanding and experience for students, from which teachers will be able to achieve learning goals.

The teacher's limitations in providing examples such as material about natural features in waters that introduce troughs, straits, and so on make it impossible for teachers to invite students to visit them, and to make it easier for teachers to understand this material, teachers will introduce troughs and straits through YouTube pictures and videos. Thus, learning media has an important role in education because it has been proven to help teachers in carrying out teaching and learning activities well.

Through this study, the author found that the use of learning media has a significant positive impact on the teaching and learning process, namely: Creating a feeling of joy that makes students more enthusiastic about participating in learning in class; With interesting learning media, it can increase students' interest in learning; Provide motivation for students by providing an engaging learning experience; Increase student involvement to be more active in the learning process, such as having the courage to discuss, express opinions, ask questions and answer questions; Make it easier for students to understand material concepts that are difficult to understand orally only through visual or multimedia media. Through visual and multimedia media, students will find it easier to remember the information presented; Helping students receive information more effectively and efficiently; Helping to overcome space and time limitations in learning; and Through technology-based media, students can learn to use various technological devices such as mobile phones, laptops and computers.

Some of the good impacts above, of course, the learning media applied are not necessarily avoided from negative impacts. Negative impacts that can arise from the use of learning media include students' dependence on using learning media, allowing students to be more interested in media compared to the material taught,

and in learning media that require electricity and internet access, it is possible to have unexpected problems such as network outages and power outages.

## Conclusion

Based on the results and discussions that have been explained, the author concludes that the use of learning media applied in grade IV at SDN Reban has been used frequently. The learning media used include PPT, YouTube videos, Quizizz, concrete objects and media made from objects around them. The correct selection and use of media will affect students' interest in learning. Various kinds of learning media that have been applied in grade IV at SDN Reban have increased students' interest in learning. Behaviors that show student interest are feeling happy, feeling comfortable, paying attention to the teacher, being more active in learning, enthusiastic, taking notes on important things related to the material, and following lessons well and in an orderly manner. Learning media has succeeded in playing an important role in the learning process. The presence of learning media has a significant impact on learning, including making students enthusiastic; arousing students' interest; fostering motivation to learn; students become more active in learning; making it easier for students to understand the concept of the material; receive information more effectively and efficiently, overcome space and time limitations, and apply technology to students.

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This article was compiled by two authors, namely V.F and D.S. All members of the authors work together at every stage of research and preparation of this article.

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The author stated that there was no conflict of interest.

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