



# Utilization of Natural Environment-Based Media in Creating Motivation to Learn Science for Grade IV Elementary School Students

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**Abstract.** This study aims to find out and analyze the needs natural environment-based media development in creating motivation to learn science. This study was qualitative research. The subject in this study was a grade IV teacher at SD Muhammadiyah Alam Surya Mentari. Data collection technique used interview, observation, and documentation. Triangulation of sources and triangulation of technique are used to test the validity of the data in this study. The result of the study indicates that teacher has used natural environment-based media in creating student's learning motivation in science. This matter is indicated by the existence of outdoor learning during science learning, and the students are so enthusiastic in learning process. The implication of this study are: The suggestion for the writer of utilization of natural environment-based media can be applied to all subjects and all level in order to create students learning motivation. Utilization of natural environment-based media as an effective media and learning resources, and make the learning process meaningful and valuable, so that students will be motivated and enthusiastic in science learning. In this way, students will get satisfied learning outcomes.

**Keywords:** Learning Media · Learning Motivation

## 1 Introduction

The use of innovative learning media would also influence students to be active during the learning process. Utilization of natural environment-based media can also create students learning motivation. According to Oktifiani (2017) & Andriani & Rasto (2019) learning motivation is all efforts within oneself that leads learning activities and ensures the continuity of learning activities and provides direction to learning activities so that the aim is achieved. Learning motivation is a psychological factor that is non-intellectual and plays a role in creating the spirit of learning for individual. (Lake et al. 2020).

According to Taileleu, (2017) Science is a way or method to observe natural environment. Because of that, an educator (teacher) who teaches science subjects, it would

be nice to invite his students to observe media that already exists in natural environment. Because by utilizing everything surround us that is more realistic as a learning-media in science learning process, it will simplify the learning process uses the five-senses. Therefore, the delivery of science material requires learning media tools. According to Adam & T.S. (2015) the use of learning media in the teaching and learning process can create new desire and interest, create motivation and stimulation of learning activities, and even bring psychological effect on students. Abdullah, (2017) explained that in general the benefits of media in learning process is to facilitate teachers and students interaction, with the aim in helping students learn optimally. With interesting media in additional, students will easier to understand the subject matter and this will have a positive impact on student learning outcomes.

SD Muhammadiyah Alam Surya Mentari is an Elementary school on Jl. Siwalan No. 45 Kerten, Kec. Laweyan, Surakarta City, Central Java Province. Students of SD Muhammadiyah Alam Surya Mentari still consider Science is a very difficult subject. This is because many teachers still use the lecture method when explaining the material. The curriculum has included science because there is basic knowledge which is needed by students to be equipped in mastering technology (Desstyta et al. 2018). Science learning that is carried out, is learning that can prepare students to learn science and technology, can think logically, critically, and creatively (Galuh Rahayuni, 2016). Therefore, teachers have the initiative to change the mindset of their students who consider science as a difficult subject. Utilization of natural environment-based media is a teacher innovation in teaching Science, especially for grade IV SD Muhammadiyah Alam Surya Mentari.

The results of research related to create science learning motivation for elementary school students, has been conducted. Widiastuti & Sumantri, (2020), that the use of the quantum teaching model based on character education is able to increase students learning motivation in science. Quantum teaching learning-based on character education emphasizes the existence of positive interaction in learning. These interactions can instill the values in character education which are applied in quantum teaching model which is able to increase students learning motivation.

The results of research conducted by Arip & Aswat (2021) obtained the result that Pop Up Book users can improve students learning outcomes in science subjects. And increase the creativity of students in designing and shaping the object of learning targets. With learning media, students will be motivated to learn so that the students learning outcomes will increase.

Furthermore, there is research conducted by (Adam & T.S, 2015) Maisyarah & Firman, The use of snakes and ladders game media can improve and create motivation and students learning outcomes. Using the snakes and ladders game in learning process of Elementary school students can increase and create motivation of students so that the student learning outcomes also increase.

The results of Sari et al. (2022) found that the application of science learning videos could increase students' learning motivation in online learning for grade V SDN Pulorejo 02, the existence of science learning video media, make the students more interested in participating in online learning, not only motivated to participate in activities learning, students are also motivated to be active in discussion activities.

The results of the research conducted by Purrohman, (2021), that the use of Quizizz Media has an effect on increasing students' learning motivation because the media requires students to be active, think critically and independently to answer questions and increase students' insight.

Triastuti et al. (2017) conducted research on learning media that can increase students' learning motivation. The research found that board games can be used as learning media to increase students' learning motivation. The material in the media is adjusted to the needs and in accordance with the learning objectives to be achieved.

Sulistiani et al, (2022) conducted a study on learning media that stimulated students' learning motivation. The results of his research can be explained that jigsaw learning model in the experimental class increase motivation and good learning outcomes in PGSD UPY in science learning. By increasing motivation and good learning outcomes, it will also has a good impact on the students themselves.

Based on the description that has been described in previous research, that the research has differences. The differences in the object and study that would be examined in this study, the authors discusses the use of natural environment media in creating motivation to learn science at SD Muhammadiyah Alam Surya Mentari. The purpose of this study was to find out and analyze the needs natural environment-based media development in increasing students learning motivation in science subject.

## **2 Method**

### **2.1 Type and Design**

The type of this study used a qualitative research. Qualitative research was approach that recognize problems related to individuals, phenomena and social phenomena. (Luthfiah, 2020). This type of research focused on analyzing the needs of natural environment-based media in increasing students' learning motivation in science subjects in Class IV SD Muhammadiyah Alam Surya Mentari located in Jl. Siwalan No. 45 Kerten, Kec. Laweyan, Surakarta City, Central Java 57144. This study was conducted In September 2022.

### **2.2 Data and Data Sources**

In this study, the authors used observation, interview and documentation as instruments, which is used to collect the data.

### **2.3 Data Collection Technique**

#### **Observation**

Observation activities were carried out by observing clearly, completely and being aware of differences in certain situations and conditions. Observation that would be carried out in this study to make observation regarding the Utilization of Natural Environment-Based Media in Creating Motivation for Learning Science Class IV SD Muhammadiyah Alam Surya Mentari.

### **Interview**

The interview used in this study was a semi-structured interview. The authors has prepared a draft of questions. The authors conducted several interviews with all information regarding the implementation of the research. Through interviewed, the authors would obtain information in the form of required data and research. The type of interview used in this research was a free interview with reference to the indicators of question that have been prepared in accordance with the formulation of the problem

### **Documentation**

In this study, documentation was used to find out the general description of the school and archived data that function to complete the data needed by the authors in carrying out research. The documentation process in this study produces documents such as schedule, learning resources, learning media, teachers and students. The data obtained from the documentation was used to complete the results of the interview.

## **2.4 Data Validity**

The validity of the data in this study uses triangulation source. Triangulation source technique was conducted by checking the data that has been obtained from various sources. In this study, triangulation is used as a data collection technique, through interview and observation.

## **2.5 Data Analysis**

The analysis of the data in this study was a qualitative descriptive analysis. Analysis of the data has the shape of reduction of data, presentation data and make a conclusion. In the Phase of collection data, the authors has to look for the data which is needed for analysis.

# **3 Result and Discussion**

## **3.1 Result**

The study was conducted at SD Muhammadiyah Alam Surya Mentari at Jl. Siwalan No. 45 Kerten, Kec. Laweyan, Kota Surakarta, Jawa Tengah 57144. In accordance with the topic of the problems discussed that the research location is carried out that school. The time of research was carried out from July 2022 to 17 September 2022. Approximately 1 month was used to collect data and 1 month was used to process the data that includes the thesis and guidance.

The subject of the study as a source of data are the IV grade teacher of SD Muhammadiyah Alam Surya Mentari and students of SD Muhammadiyah Alam Surya Mentari. The data used in this study are primary data and secondary data. In this study, primary data would be obtained from interview, while secondary data would be taken from observations and relevant documents and previous research. From the results of the study, there are still many students of SD Muhammadiyah Alam Surya Mentari who though that science lessons are difficult, because teachers only use the lecture method in delivering

**Table 1.** Table of utilization of natural environment-based Media in creating Science Learning Motivation Class IV

Informan	Jawaban
Teacher A	Utilization of natural environment- based media has been effective, the students are active during the learning process, the students are also fast to grasp the material that I provide. The media that I use usually videos, pictures or direct observation. Study by observing the natural environment around us, students are motivated and enthusiastic in learning, because students do not feel bored. If The learning process only lecture, sometimes students are sleepy. For Muhammadiyah Elementary School, it is not only science lesson that use the natural environment as a medium of learning and learning resources. Because this school is a natural school, so we apply the natural school curriculum, all lessons are related to the natural environment.
Teachers B	The application of natural environment media has been going on for a long time because SD Muhammadiyah Alam Surya Mentari is a natural school in Solo. So this school has used the natural school curriculum. In my opinion the use of natural environment media is effective, because students are invited to think critically by observing the environment around them. That's why students will not be bored during learning. Students also easily accept the material that I convey. Not only science lessons, but all lessons use the natural environment as its media and learning resources.

material, especially science materials. Therefore, teachers have new innovation to create the natural environment as learning media that can increase learning motivation of students. By learning use the exist resources around the students, students can explore their understanding and be active during the learning process.

Utilization of natural environment-based media in creating science learning motivation.

Based on the results of what has done at SD Muhammadiyah Alam Surya Mentari about the utilization of Natural environment-based media in creating motivation to learn science for students class IV Elementary School. Based on interviews with 2 informants as teachers of SD Muhammadiyah Alam Surya Mandiri, it can be explained as follows (Table 1):

### 3.2 Discussion

Based on the results of the study that has been described above, SD Muhammadiyah Alam Surya Mentari utilizes natural environment media to increase students learning motivation, especially grade IV students for Science subject. The use of natural environment as a learning media and source in SD Muhammadiyah Alam Surya Mentari has been going on for a long time, because SD Muhammadiyah Alam Surya Mentari is a natural-based school. Utilization of nature environment is considered effective, by learning with natural environment, the students do not feel bored. In learning the teachers invites students to think critically and actively during the learning process, so that students do not feel bored during learning. Students' also easily grasp the material given by

the teacher. The media used by teachers in learning process are usually videos, pictures, or direct observations. Science learning often becomes problem for elementary school students. Science learning is a knowledge that contains facts, principle concept and laws that are tested for truth. This is in line with research conducted by Hazmiwati, (2018) that science is a knowledge about natural phenomena that is poured in the form of facts, principle concept and laws that are tested for truth and through a series of activities in scientific method.

Science is very important to be taught in Elementary School. This is in line with research conducted by Rahmasari, (2016) some of the reasons stated that science is important to be taught in Elementary School, namely: 1) That science is useful for a nation because Science is the basic of technology that determines the progress of a nation's development. A technology will not develop rapidly if it is based on adequate basic knowledge. While the basic knowledge for technology is science. 2) If it is taught in the right way, Science is a subject which give a student a chance to think critically and objectively. 3) If it is tough through experiments carried out by students themselves, learning science is not just rote memorization. 4) Science has educational values that can shape the personality of Students as a whole. Therefore, in science learning the teacher is expected to create a fun and effective learning atmosphere in accordance with the desire learning objective.

Science would be easier to be taught when using learning media tools. The use of learning media can help teachers during the teaching and learning process. This is in line with the research of Rejeki et al. (2020). The use of learning media can help teachers in delivering teaching materials, with learning media teachers no longer need to bother writing on the blackboard, or bring other media that is less attractive to students. The use of learning media is very necessary, especially in science subjects. The use of learning media in the science learning process can improve conceptual understanding and creativity, so that the students are interested in paying attention to the teacher's explanation. This is in line with the research of Wahyu et al. (2020) & Supardi, (2017). The use of science media has a very important function to explain and instill concepts that are difficult for students to understand. Utilization of the natural environment can also assist teachers in delivering learning materials.

Utilization of natural environment can make learning process meaningful and valuable. This is in line with research conducted by Lamasai et al. (2017) that by using the environment as a medium and source for learning, it would be more meaningful and valuable because students are expected with the real event and situation, the situation happened is real, factual, and the truth is more responsible. By utilizing the natural environment in learning process, especially in science subject, it can create students learning motivation. That motivation is the impetus that causes an action to achieve the goal. This is suitable with Mulyaningsih, (2014), that learning motivation is an encouragement or a person's willingness to carry out learning activities so that learning achievement can be achieved optimally. Learning motivation would effect students during the learning process., with motivation or encouragement students would be excited in the learning process so that the students would focus and easily accept the learning provided by the teacher. That's why, students learning outcomes will increase because the students understand the learning delivered by the teacher during the learning process.

## 4 Conclusion

Based on the results of the study, it is concluded that the utilization of natural environment is effective to be used to create Science learning motivation, especially to students in grade IV at SD Muhammadiyah Alam Surya Mentari. By Utilization of nature environment, students are easier to accept science material given by teacher during the learning process. Students do not feel bored during the science learning process. Utilization of natural environment –based media becomes effective media and learning resources and make the learning process meaningful and valuable, so that students would be motivated and enthusiastic in science learning. In this way, students would get satisfied learning outcomes.

This study has limit only one subject and only one level. This study examines the utilization of natural environment –based media, especially science subject and only grade IV of elementary school students. So it is hoped that further studies can be carried out further research on the utilization of natural environment- based media to increase elementary school students learning motivation.

Suggestion for the authors about utilization of natural environment-based media can be applied to all subject matters and all level so it can increase student learning motivation.

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