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Implementation Of Audio-Visual Media In Science Learning In Class Iv A (Case Study At Tanjung 2 Public Elementary School, 2024/2025 Academic Year)

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Abstrak

This study aims to describe the implementation of audio-visual media in learning Natural and Social Sciences (IPAS) in class IV A of SD Negeri 2 Tanjung in the 2024/2025 academic year. The main focus of this research includes two things, namely: (1) the steps of using audio visual media in the IPAS learning process, and (2) the use of audio visual media in the learning evaluation process.This research used a qualitative approach with a case study method. Data collection techniques were conducted through observation, interviews, and documentation. Data analysis techniques using the Miles and Huberman Model. The results showed that the steps of using audio-visual media started from careful planning by the teacher, selecting media in accordance with the material, implementing learning with the help of learning videos, and closing in the form of discussion and reflection. Audio visual media is not only used in delivering material, but also in the learning evaluation process. Teachers utilize video-based interactive quizzes, as well as digital worksheets inserted in the show to measure student understanding in a direct and fun way.The use of audio-visual media is proven to increase students' learning motivation, facilitate understanding of IPAS concepts, and make the evaluation process more interesting and participatory.This finding shows that audio-visual media can be an effective learning tool, both in delivering material and in the process of assessing student learning outcomes.

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1. INTRODUCTION

Education is a strategy in creating a superior national character. Education is essentially an effort to help, train and direct children through the explanation of knowledge, experience, intelligence and diversity in accordance with the actual conditions of human beings so that they can develop equally in the planned purpose, namely the life that forms the main personality (Hartyanto, 2011:100).

The implementation of education in Indonesia refers to Law No. 20 of 2003 concerning the objectives of Indonesian education, which is the development of educational potential to become human beings who are pious to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens (UUD Sidiknas No. 20 2003). Therefore, education in Indonesia must be designed effectively in the form of guidelines for the implementation of education or what is called the education curriculum.

The curriculum serves as a barometer for the implementation of the educational process. According to Law No. 20 of 2003, "the curriculum is a set of plans and regulations regarding the

objectives, content, and learning materials, as well as the methods used as guidelines for implementing learning activities to achieve certain educational goals" (UUD Sidiknas No. 20 of 2003).

The development of science and technology presents numerous challenges in the world of education. The curriculum, as a guideline for educational implementation, must be able to address global challenges and changing conditions and student potential. A national curriculum is essential to ensure equitable quality of educational services, enabling students to maximize their potential. The national curriculum framework must provide space for innovation and freedom, allowing for further development by each school (Ministry of Education and Culture, 2022).

The Independent Curriculum, an educational innovation in Indonesia, is designed as a national curriculum. It offers diverse extracurricular learning to optimize content so that students have sufficient time to strengthen their competencies and concepts (Ministry of Education and Culture, 2022). The Independent Curriculum is a government policy aimed at providing principals and teachers with flexible opportunities to develop a curriculum tailored to student needs and the surrounding environment (Rooms and Jhane, 2023: 982).

Learning in the independent curriculum is project-based which aims to develop *soft skill* and character according to the profile of Pancasila students, focusing on material *essential so* that the learning process is in-depth in the basic competencies of literacy and numeracy and teachers are more flexible in conducting learning according to the abilities of students (Yuni and Melian, 2023: 4). Learning in the independent curriculum uses phases in its learning. Learning consists of six phases, namely phases A to phase F, which start from elementary school level to secondary school level, each phase has different learning outcomes (Kemdikbud, 2022). Learning in the independent curriculum in phase A includes Islamic religious education and character education, Pancasila education, Indonesian language, mathematics, natural and social sciences, physical education, sports and health, arts and culture, as well as English and local content as elective subjects. While in phases B and C the teaching content includes; Islamic religious education and character education, Pancasila education, Indonesian language, mathematics, natural and social sciences, physical education, sports and health, arts and culture, as well as English, and local content (Kemdikbud, 2022).

Science (IPAS) is a learning content of the independent curriculum taught at the elementary school level, taught in phases B and C. (Rusilowati 2022: 26) states that Science (IPAS) is a subject that has integrated science and social studies subjects. The integration of these two subjects is carried out because they are related to each other, which is then termed IPAS. Science teaching has a scientific attitude basis that underlies the implementation of the scientific process to produce scientific products. Meanwhile, Social Studies has a basis in human interaction with everything and the environment; by using various social study approaches, students are guided to become citizens with good social insight (Rusilowati 2022: 58).

The integration of science and science learning is a form of innovation in the Merdeka curriculum. Initially, science learning was carried out by teachers by separating science lessons in semester 1 and social studies lessons in semester 2. However, over time, science lessons were taught simultaneously in each semester. This condition presents a challenge for teachers to present more engaging (less monotonous) learning so that students understand the lessons delivered in a more effective manner (Nuryanti, et al., 2022: 3). Effective learning can be realized through teacher creativity and exploring students' potential so that students (Rahmadayanti and Hartono 2020: 102).

Learning media is a teaching aid used by teachers to deliver learning materials in the learning process (Fathurrahman, 2007:65). According to Nana Sudjana (1991), learning media has an integral function in the learning process. Learning media can overcome the limitations of experience possessed by students (Ridwan, 2020). By using learning media, it can be useful in the process of transferring information to students. The use of audio-visual media is one effective way to achieve learning objectives. Because the concept of audio-visual media combines the ability to see and hear, it will provide a broader and more realistic learning impression for students. Teachers can display images

with sound, thereby maximizing student understanding in learning. Based on the theory of *Dale Cone Of Experience* by Edgar Dale (1946) on the learning pyramid shows that reading learning contributes to mastery of material and memory by reading 10%, listening 20%, and seeing it directly contributes 30%. When someone says, teaches, demonstrates, or discusses, it can provide 70% of understanding and memory of the material mastered, and if actively doing or applying knowledge then it contributes 90% to our understanding and memory of something. (Nurdini, Web 2015, accessed at:https://nurdini blogspot.com/2015/12/piramida-pembelajaran-edgar-dale-1946.html)

In the theory above, in order to maximize students' understanding, media can be combined so that students not only listen, read, and write, but also design more actively through discussions, demonstrations, or applications through more realistic audio-visual media stimuli for students. The use of audio-visual media can be a medium that can stimulate students to be more active, especially currently in Indonesia, the use of the Merdeka Mengajar Platform has become a means for educators to develop their competencies. There are various teaching materials and learning videos that teachers can use in learning. In fact, the Merdeka Mengajar Platform has provided benefits of 87%. There is an increase in the quality of learning, both felt by students and educators in educational units (Endang, 2023:32). Therefore, it is hoped that educational institutions can utilize audio-visual media in various learning processes. There has been a lot of facilitation by the Ministry of Education and other digital-based learning platforms.

Based on the results of initial observations conducted by researchers at SD Negeri 2 Tanjung, students learned enthusiastically using audio-visual media in the form of learning videos. This condition means that learning using audio-visual media has a significant impact on students' knowledge and enthusiasm for learning. Through audio-visual media, learning can be presented in an interesting way, thus presenting complex material, especially integrated learning such as science and science. This is what made researchers interested in conducting research with the title "*"Implementation of Audio-Visual Media in Science Learning in 4A (Case Study at SD Negeri 2 Tanjung in 2024/2025)"*.

2. MATERIALS AND METHODS

This research uses a qualitative approach with a case study type of research. The case study method is a series of scientific activities carried out intensively, in detail, and in-depth about a program, event, and activity, whether at the individual, group, institution, or organizational level to gain in-depth knowledge about the actual event (real-life events), which are currently taking place, not something that has passed. (Mudjia, 2017:1-5)**.** So, in this study, the researcher will determine the research topic and then begin to understand the topic raised and then triangulate the research data, namely related to the use of audio-visual video learning media in the implementation and evaluation of science learning for class IV A at SD Negeri 2 Tanjung 2024/2025.

The primary goal of research is to obtain systematic and empirical scientific data. To obtain these categorized data, data collection techniques are required. Data collection techniques are one of the factors in obtaining data that aligns with the research objectives. Therefore, it is crucial for researchers to pay attention to the accuracy of the information gathering process, be thorough, plan the research systematically, and record the information gathered in the field.

a. Interview (*interview*)

One of the data collection techniques in qualitative research is the interview process with the relevant parties. An interview is a conversation between two or more people to obtain information from the source. The purpose of conducting these interviews is to obtain information that is then processed into data. Information obtained from class teachers and students will be the primary data, while information obtained from the principal will be supporting or secondary data. Regarding the interview process, researchers will conduct it with each target at different times. Interviews with class teachers will be conducted before

the implementation and evaluation of learning using audio-visual media. Meanwhile, student interviews will be conducted after the implementation and evaluation of learning. Interviews with the principal will be conducted after obtaining primary data.

In this study, the researcher used an interview with the class teacher regarding the implementation and evaluation of learning using audio-visual video learning media in science learning and an interview with students regarding their level of understanding in science learning using audio-visual video learning media in science learning. As well as an interview with the principal of SD Negeri 2 Tanjung regarding the general description of learning at SD Negeri 2 Tanjung.

b. Observation

Observation is a data collection technique carried out by carefully observing the object being studied. Observation is the process of observing and recording facts needed by researchers to fulfill appropriate data. In this study, the researcher conducted passive participatory observation where the researcher was present in the activities carried out by the object of study but the researcher was not involved in the series of activities. The researcher has a participatory observation technique that aims to allow the researcher to obtain independent and careful observation results on the implementation and evaluation of the learning process of class 4A students of SD Negeri 2 Tanjung in science learning activities with audio-visual learning video media. As well as activities carried out by class teachers in a series of learning implementation and learning evaluation using audio-visual media.

Participatory observation will be conducted by the researcher on the class teacher and students during the implementation of learning and evaluation of learning using audio-visual media. Related to the observation process, the researcher will observe from the beginning to the end of learning using audio-visual media in learning videos in class 4A of SD Negeri 2 Tanjung during science learning activities.

c. Documentation

Documentation is a source of data that supports research, in this study the documentation that researchers collected includes; In this study the documentation data referred to includes: class 4A student data, special notebooks, teacher reflection books, students' PAS IPAs scores, teacher's IPAs handbooks, student's IPAs handbooks, IPAs Phase B Learning Objectives (TP), IPAs Phase B Learning Achievements (CP), IPAs Phase B Learning Flow (ATP), and teaching modules and various photographs that support research activities.

Data analysis in a qualitative approach is conducted during data collection and after completion within a specified period. This analysis can be conducted through direct interaction and face-to-face interviews, resulting in more accurate data analysis.

Interactive is a model developed by Miles and Huberman (1992) and refined in 2014 (Miles & Saldana, 2014). Interactive refers to continuously connecting data analysis components until data saturation is reached or no further data is available. Therefore, producing good data requires several stages of analysis. There are three stages in qualitative data analysis: data condensation, data presentation, and conclusion drawing.

3. RESULTS

1. Steps for Using Audio Visual Media in Science Learning in Class 4A of SD Negeri 2 Tanjung in the 2024/2025 Academic Year

Learning to use media plays a fundamental role in maximizing learning. Appropriate media use requires careful attention to the steps involved. This includes the use of audio-visual media in integrated subjects such as science. Based on the results of research conducted in

grade 4A of SD Negeri 2 Tanjung on the steps for using audio-visual media in science learning in grade 4A of SD Negeri 2 Tanjung in the 2024/2025 academic year, data on the use of audio-visual media has been obtained.

The results of the explanation above are supported by the results of observations that based on the results of observations that in the implementation of learning with audiovisual media, class teachers have prepared media in the form of learning videos and supporting devices for audiovisual media in the form of LCDs and speakers and set learning objectives and plans, then when they are in class, they start preparing devices and then preparing student readiness, apperception, and conveying learning objectives and teachers provide stimulus to students during learning using learning video media as a teaching medium, in the process students are actively involved, students are given the opportunity to ask questions. Thus, increasing student enthusiasm in learning.

The documentation results in the form of teaching modules, student books and teacher books, student attendance lists, learning video media, and various photos of the learning process using learning videos serve as supporting data for the research.

Audiovisual media is media that contains both sound and visual elements. This type of media has better capabilities because it encompasses both the first and second types of media (Fathurrahman, 2017:67-68). Audiovisual media is a number of tools used by teachers to convey concepts, ideas, and experiences captured by the senses of sight and hearing (Djamarah and Zain, 2014:120).

Based on the results of the researcher's observations in class IV A of SD Negeri 2 Tanjung in presenting the data obtained from the results of interviews, observations, and documentation, the researcher found new findings related to the steps for using audio-visual media in science learning in class 4A of SD Negeri 2 Tanjung, as well as the use of audio-visual media in evaluating science learning in class 4A of SD Negeri 2 Tanjung, which the researcher can describe as follows:

First, that teachers in using audio-visual media in science learning in Class 4A SD Negmuseri 2 Tanjung in the 2024/2025 Academic Year, the first step taken is to formulate learning objectives. This is in line with the theory of learning steps put forward by Fathurrahman (2017) that the main process before implementing learning using media is to formulate teaching objectives. The content of teaching objectives is essentially the expected learning outcomes. Objectives, materials, assessments, methods and tools to achieve learning objectives then there are objectives made by the teacher, to achieve learning objectives (Nana, 2010:63):

Second, the research results show that after reviewing learning outcomes, the next step is for teachers to choose and determine appropriate media according to the material to achieve learning objectives in line with the theory of learning implementation steps put forward by Fathurrahman (2017).

Third, findings at SD Negeri 2 Tanjung indicate that in the implementation of science learning, teachers often use supporting facilities such as LCD projectors and speakers to display learning videos. The use of facilities and equipment has a major influence on the learning process. Dini and Rika (Sumarno, 2020:35), review the instructions for using audio-visual media, and prepare and arrange the audio-visual media equipment to be used to ensure that all audio-visual media equipment is complete and ready to use. Steps for Using Audio-Visual Media (Damayanti, 2021:19-20) Preparation of the classroom environment and students before learning with media begins. The learning theory in this case is the Taxonomy of Learning Variables theory of *Reigeluth et al* in (Salamah, 2006: 33) Paying Attention to the Availability of Physical Facilities.

Fourth, the next step is to begin a series of learning activities, starting with preliminary activities, which include preparing students for learning, conducting apperception, and then

explaining the learning objectives. This "introduction" will be reflected in three steps: a brief explanation of the lesson content, an explanation of the relevance of the new lesson content, and an explanation of the instructional objectives.

Fifth, teachers present lessons and use the media. Teachers use media to help them explain lesson material using audiovisual media. Video, an audiovisual medium that displays movement, is becoming increasingly popular in our society. The messages presented can be factual or fictional, informative, inductive, or instructional (Dalyono, 2009: 53).

Sixth, the teacher conducts 2-way interaction with students, namely asking about their understanding of the learning video that has been watched together, the goal is to provide stimulus for students and ultimately students will explore their understanding of the material they see in the video. The stimulus and response process in learning is very important to create an active and interactive learning climate, this condition is in line with the theory of the principles of instructional development according to Filbeck Behavior is not only controlled by the consequences of the response, but also under the influence of conditions or signs that exist in the student's environment

2. **The Use of Audio-Visual Media in Evaluating Science Learning in Class 4A of SD Negeri 2 Tanjung in the 2024/2025 Academic Year**

Based on data obtained from observations, interviews, and documentation, the researcher found that in Class 4A of SD Negeri 2 Tanjung, teachers conducted evaluations using audio-visual media and student worksheets (LKPD). This was done to determine the extent to which teaching objectives were achieved and the extent to which the use of media as a tool could support the success of the student learning process. Furthermore, the evaluation functioned to strengthen their understanding of the material learned through audio-visual media. Furthermore, this stage also aimed to assess the effectiveness of the learning process that had taken place.

student learning process. Furthermore, evaluation serves to strengthen their understanding of the material learned through audiovisual media. Furthermore, this stage also aims to assess the effectiveness of the learning that has taken place.

The learning theory in this case is the Learning Variable Taxonomy theory of *Reigeluth et al of* Learning outcomes in (Salamah, 2006: 33). the activity of informing the results of formative tests so that students get certainty about their learning outcomes. Teachers should pay attention to assessments according to Nana Sudjana include; Assessment must be carried out continuously; In the teaching process, assessment can be carried out in three stages, namely Pre-test, Mid-test and Post-test; Assessment is carried out not only in class but also outside the class, especially on behavior; To obtain an objective picture of the assessment, it is best to carry out test and non-test assessments (Sudjana, 2010: 117) According to Sudirman N, et al., the purpose of assessment in the learning process is 'Making decisions about learning outcomes; Understanding students; Improving and developing learning programs.

4. CONCLUSION

Based on a series of research processes and data analysis, the researcher obtained research results in Class 4A of SD Negeri 2 Tanjung in the 2024/2025 academic year which cover

1. Steps for Using Audio Visual Media in Science Learning in Class 4A of SD Negeri 2 Tanjung in the 2024/2025 Academic Year include; 1) the teacher formulates learning objectives, the teacher prepares a learning plan in the form of a teaching module; 3) the teacher prepares supporting facilities such as LCD Projectors and Speakers; 4) the teacher ensures students' learning readiness; 5) the teacher conveys learning objectives and carries out the apperception process; 6) the teacher provides an overview of the material and directions before watching the learning video; 7) the teacher displays the learning material using learning video media; 8) and after that

the teacher conducts questions and answers and discussions about the learning material delivered through the learning video.

2. The Use of Audio-Visual Media in Evaluating Science Learning in Class 4A of SD Negeri 2 Tanjung in the 2024/2025 Academic Year, namely teachers use evaluation by utilizing student worksheets and occasionally teachers use audio visual media to evaluate student learning outcomes so as to provide an interesting impression and increase students' enthusiasm for learning.

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