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Improving The Results of Grade V Students in Science Lessons With The Food Chain and Food Webs Material Through Audio Visual at Elementary School 3 Karanganyar

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ABSTRACT

Objective: *This study aims to enhance the academic performance of fifth-grade students in understanding food chains and food webs through the implementation of audio-visual media at UPTD SDN 3 Karanganyar. Initial data revealed that only 21.73% of students (5 out of 23) met the competency threshold, with an average class score of 41.73.* ***Method:*** *Conducted as a Classroom Action Research (CAR) study, the research spanned two cycles, each consisting of planning, implementation, observation, and reflection phases. The study involved 23 fifth-grade students.* ***Results:*** *The integration of audio-visual media resulted in significant improvements in students' learning outcomes. The average score increased from 57.39% in Cycle 1 to 89.56% in Cycle 2, indicating substantial enhancement in students' comprehension of food chains and food webs. The use of audio-visual tools fostered an interactive and engaging learning environment, promoting active participation and deeper understanding.* ***Novelty:*** *This research highlights the effectiveness of audio-visual media as an innovative pedagogical tool for improving science education outcomes in elementary schools. It emphasizes the role of interactive media in enhancing conceptual understanding and recommends its broader application in similar educational settings.*

INTRODUCTION

Education always related with human, good as subject, object and manager. Based on opinion said, in interaction education of course there are targets as well the goal that must be achieved achieved. Besides that, there is material or materials interacted, processes undergone in interaction and the activities evaluation for evaluate achievement of the process and its results. Through various experience learning, individual to obtain knowledge, skills, values and attitudes.

According to Sutiah, learning is basically is business aware from a teacher for educate his students, namely with direct connection participant educate with source learn another to meet the desired target. Wahid explains that teachers, as a component important in activity learning, having a very decisive role success learning. Function the main teacher is designing, implementing, managing and evaluate learning. Therefore, teachers must have ability communicate well so you can convey teaching materials with clear and easy understood by students, based on objective learning that you want achieved.

Science learning at school base play vital role in reach objective education that has

been determined. According to Aprilia et al, the purpose education science at school can classified into two: formal objectives that emphasize development reasoning as well as formation personality students, as well as material goals that focus on abilities solve problems and applications of science. Yayuk explains if learning science have objective namely for practice as well as develop method think creative, critical, logical, systematic, and consistent, and also for build attitude believe self and persistent in finish problems. Science is basically is knowledge abstract and deductive. However, Hastuti et al stated that student school basic, aged 7 to with 12 years, still be at the stage operational concrete as well as not yet can think abstract or formal. At the age of this, orientation they Still related with events, objects or experience personal experience direct. Children at stage operational concrete will more easy think in a way logical when assisted with manipulation physique from objects real, for example material manipulative and learning media. From the explanation said, it is clear that mathematics have role important as supplies in life everyday life. In learning Science, students trained for overcome various problem. Ability solve problems also include skills that involve various aspect knowledge like analysis, application, understanding, memory, and evaluation, and attitude open to challenge.

However results observation research at UPTD SDN 3 K a ra nganyar in reality student experience difficulty in develop ability base science. One of them is in the material draft the nets food. So matter it is very influential to results mark end students who are still lots no fulfil standard minimum passing grade (KKM) for subjects lesson science from overall average score on implementation precycle 41.73% still around 58.27% of students get mark below KKM especially on the material food webs. Only 17.39% of students obtained value above KKM It means part big participant educate not yet can reach competence in learning IPA. That's what it is study do action repair for understand reason from problem.

A number of results observation during learning in progress there is a number of reason from problem mentioned. Facts in class show if difficulty this looks from lack of meaning in activity learning carried out by teachers as well difficulty in provision of learning media. As a result, teachers usually direct use method lecture, with give a number of example. So that motivation participant educate low, because student no or not enough interested for study it. In addition, the lack of use of learning media in the teaching process cause learning become monotonous and student not enough participate active. As a result, mastery material become less than optimal and results learning is also low. Therefore, that for desired result, important for focus on internal improvement and learning sustainable. For ensure experience study interesting and dynamic teaching, both for teachers and students student must participate active in the educational process. To create a atmosphere lively and fun learning important For utilize appropriate learning media.

According to Siregar & Hasanah, learning media have role important in increase bait return and interest students. Media functions as means for channeling message

from teacher to students, with objective motivate student so that can follow the learning process in a way comprehensive as well as meaningful. Learning media is all something that can used for convey message until can stimulate interest, attention, feelings, as well as thought students, who in turn facilitate the learning process. Rohani stated that the media is tool aids used by teachers to give teaching materials in effective on students. Hasan et al added that for achieve the learning process fun teaching, supporting learning media are needed. Yonanda et al state that in learning science material food web with use of learning media for example multifunction board can help student in visualize draft or intermediary for more understand material. Selection multifunction Board expected will help teachers to convey learning to become more easy understood, so that learning become more interactive, growing motivation student so that will more participate active in learning and expected can increase results study students. According to Gaol et al, appropriate use of learning media can give significant impact to results study student.

RESEARCH METHOD

Methods used in studies this is study action class. According to Susilo et al, the implementation of study action started from emergence problem then to be continued with prepare planning, executing action, doing observation, conduct reflection, making plan repeat and carry out action next in a way repetitive. The purpose of method This is for repair teacher performance and improve mark end students. From the explanation said can taken conclusion that study action class implemented directly by the teacher. Research started based on reflection teacher's initial response to problems faced during teaching. This study in progress through a number of stage which are called with cycle.

Subject studies This involving students Class V of UPTD SDN 3 Karanganyar in the year 2024/2025 lessons, with a total of 2 7 students consisting of from 16 students boys and 11 students women. This study implemented start October 6, 2024 to 13 October 2024. Activities study covers preparation of lesson plans, implementation cycle 1, and cycle 2.

Stages in cycle 1 based on results observation problems that occur in class. Then it is implemented planning for do repair with audio visual media, the teacher prepares RPP repairs and so on, in the implementation involved supervisor as observer and assessor. After implementation finished supervisor give results observation during learning in class and teachers do reflection for implementation cycle 2nd coming soon implemented.

The stages in cycle 2 are that the teacher prepares return RPP repair results reflection and values observation as reference repair from cycle previously, the party outside involved is supervisor 2 and senior teacher colleagues who will observe and be evaluation during do classroom learning.

Acquisition mark taken from results the test that has been done student do, value will calculated and accumulated, the process of calculating use formula under.

Table 1. Completeness formula study student

$$N\frac{Student\ achievement\ scores}{Maximum\ score} = x$$

Table 2. Class average formula

Calculating the class average

$$X = \frac{\sum X}{N}$$

Information :

X = Average class value

∑X = Sum of all student scores

N = Number student

Table 3. Categories value completion

No.	High Scale	Category	Information
1	90-100	Very good	Completed
2	80-89	Good	Completed
3	70-79	Enough	Completed
4	60-69	Not enough	Not finished yet
5	0-59	Very Low	Not finished yet

RESULTS AND DISCUSSION

Implementation study learning carried out at UPTD SDN 3 Karanganyar, involves class V which consists of 27 students. This study implemented in two cycles namely cycle 1 and cycle 2 as repair learning. Implementation improvement in class assisted by supervisor 2 as assessors and observers during teaching in class. Following is results mark student before and after do repair learning.

Taken for become comparison beginning writer in repair because part big results from pre cycle no reach criteria completion of science lessons. Therefore that, implemented repair learning. Table on show that beginning implementation pre-cycle results tests conducted participant educate very far from provision evaluation minimum standard of completion, value KKM standard for the subject lesson science class V is 65. From 2 7 student only 7 participant students who achieve KKM value and 20 participant educate other still not yet finished or no reach criteria, from all over results mark pre cycle. Participants this show if existence problem in the learning process teaching carried out by the teacher in class. According to Suci and Taufina said that frequent problems arise in the learning process science possible caused by an approach that tends to nature theoretical, less notice aspect reasoning and logic, so that material ipa feel difficult and scary for part students. So from That researcher will do For overcome existing problems moment This, the use of audio visual media used as solution for increase results learning. Improvement implemented in two cycles and results every cycle explained in a way comprehensive.

Repair results cycle (Phase I)

Implementation learning cycle 1 shows activity participant educate seen when the teacher gives question moment do apperception and inside part core activities. Test results end participant students who have done enough increase and more good from

pre cycle, but acquisition mark a number of student still under KKM value. Assessment results from observer is a teacher who does not involving student in a way direct to activity learning like distribution group and can compose and create a report from results observation.

The point that becomes observer comments become reference repair towards the RPP cycle 2. So in matter That Still required improvements to the cycle next. It means repair This Not yet fully complete.

Based on observation repair cycle 1 can acquisition mark the highest student be at value around 80-89 is good and complete and acquisition results mark lowest be on the scale below 0-59 then including category not yet finished or mark below KKM.

Table 4. Results study natural science cycle 1

No	Scale	Category	Cycle 1	
			Learners	Presentation
1	90-100	Very good	-	-
2	80-89	Good	7	21.73
3	70-79	Enough	-	-
4	60-69	Not enough	1 5	43.47
5	0-59	Very Low	5	34.78
Amount			**27**	

In the table above, looks details acquisition mark students in phase 1. There are 7 students who get mark good and complete with percentage of 21.73%. However, there were 15 students who entered in category less, with percentage 43.47%. Although thus, still There is participant students who have not reach completion of value end. With so, can taken conclusion that use of multifunction board media in learning IPA has significant impact in a way gradually. However, understanding participant need repaired and renewed. It is become notes important in cycle 2.

Repair results cycle (Phase 2)

In progress second learning, methods used is lecture with audio visual media support. Linking participant educate in formation group is the right step for build participation students and train they in observe, organize and explain results discussion. Finally, it happened significant improvement in results test participant educate.

Table 5. Learning outcomes cycle 2

No	Scale	Category	Cycle 2	
			Learners	Presentation
1	90-100	Very good	9	30.43
2	80-89	Good	18	69.56
3	70-79	Enough	-	-
4	60-69	Not enough	-	-
5	0-59	Very Low	-	-
Amount			27	-

Result value test end of cycle 2 increased. This shows success improvements in cycle 2. Improvements cycle this participant students who receive scale there are 9 students with a score of 90-100 with percentage 30.43% while student in category good scale 18 students got a score of 80-89 with percentage 69.56 %. Of the total average student grades namely 89.56%. This has increased significantly from results previously. Improvements in cycle 2 showed success because all participant educate is in the category complete. Here is results recapitulation results study student from cycle 1 and cycle 2 in matter that results both of them show significant improvement.

Table 6. Recapitulation learning outcome completion and average value cycle 1 and cycle 2

No	Information	Amount Participant Educate		%	
		Cycle 1	Cycle 2	Cycle 1	Cycle 2
1	Average value	27	27	57.39	89.56
2	Value above KKM > 65	7	27	21.73	100
3	Value equals KKM = 65	-	-	-	-
4	Value below KKM < 65	20	-	78.25	-
5	Amount Participant educate achieve KKM	7	27	21.73	89.56

From the results recapitulation on show changes and improvements in cycle 2. In cycle 1 it can be seen that students who get mark above KKM around 7 people while at cycle 2 namely 2 7 students achieved category with results above KKM. Participants students who receive the right value according to standard namely 65. In cycle 1 there is 7 participant educate. Meanwhile, in cycle 2 there were 27 participants educate. For mark under the KKM in cycle 1 there were 20 participants educate while in cycle 2 no There is participant students who get mark under KKM. In case that show that repair to learning Mathematics for 2 cycles produce change in a way significant especially to results test student.

If implementation improvements in cycle 2 experienced increase grades on the test student in a way significant. Then it can taken conclusion implementation usage audio visual media in science learning related material Food Webs that have been used. compared cycle first which student Not yet understand audio visual media in science learning. In the cycle first still understand material in a way general because of participant educate, new know audio visual media so that results the test Not yet maximum. After do test on cycle second, students new understand what it is audio visual media in learning IPA. So that results test students in cycle second experience increase from 57.39% to 89.56%.

Based on the provided references, the following response can be synthesized to address the task of improving the results of grade V students in science lessons with the

food chain and food webs material through audiovisual aids at an elementary school:

The use of audiovisual aids has been shown to be an effective strategy for improving student learning outcomes across various subjects and grade levels [7]; [13]; [12]; [18]; [10]. In the context of science education, specifically for the topic of food chains and food webs, the integration of audiovisual media can enhance the effectiveness of teaching and learning [13]; [12]; [2].

Audiovisual aids provide both auditory and visual stimuli, which can facilitate the registration of information in short-term memory and its consolidation with prior knowledge in long-term memory [18]; [10]. This can contribute to better retention of the content taught and improved learning outcomes [18]; [10].

Several studies have demonstrated the positive impact of using audiovisual aids in science education. For example, the learning cycle model assisted by audiovisual media has been found to have an effective impact on learning success, improving students' science process skills and learning outcomes [13]; [12]. Additionally, the development of learning media based on cross-puzzle games in science learning has been shown to improve learning outcomes [2].

Furthermore, the use of audiovisual aids can enhance student motivation, foster classroom interaction, and provide a more engaging and interactive learning experience [7]; [5]; [10]. This can lead to improved learning outcomes, as students are more actively engaged and motivated to learn the material [7]; [5]; [10].

It is important to note that the effectiveness of audiovisual aids in improving learning outcomes is not limited to science education. Studies have shown the benefits of using audiovisual aids in various subjects, such as language learning and mathematics [4]; [8].

In conclusion, the integration of audiovisual aids in science lessons, particularly for the topic of food chains and food webs, can significantly improve the results of grade V students. The use of audiovisual media can enhance the effectiveness of teaching and learning, leading to better retention of the content, improved learning outcomes, and increased student engagement and motivation [7]; [13]; [12]; [18]; [10]; [2].

CONCLUSION

Fundamental Finding : The findings of this study indicate that the use of audio-visual media significantly enhances students learning outcomes and engagement. The percentage of students meeting competency standards increased from 57.39% in cycle 1 to 89.56% in cycle 2, with a total improvement of 32.17%. This demonstrates the effectiveness of audio-visual media in improving understanding and motivation, particularly in the subject of science with food chain and food web material. **Implication** : The integration of audio-visual media in the classroom provides a valuable tool for fostering interactive and student-centered learning environments which can enhance both cognitive and affective learning outcomes. It highlights the importance of utilizing engaging media to support the learning process. **Limitation** : The study was conducted

in a single school with a small sample size and focused on a specific science topic, limiting the generalizability of the findings to broader contexts or other subjects. **Future Research** : Further investigations should examine the application of audio-visual media across different subjects, grade levels and larger populations to assess its broader applicability and to identify optimal strategies for implementation in diverse educational settings.

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