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IMPROVING SCIENCE LEARNING OUTCOMES OF STUDENTS USING INTERACTIVE ANIMATION MEDIA IN THE DEVELOPMENT OF LIVING THINGS MATERIAL FOR GRADE IV OF SD 71 MACCINI, SOPPENG REGENCY

Andi Muhammad Pallawagau[1], Irmawanty[2], Andi Muafiah Nur[3]
Elementary School Teacher Education Study Program, Muhammadiyah University of Makassar
andimuhammadpallawagau@gmail.com,irmawanty@unismuh.ac.id,a.muafiahnur@unismuh.ac.id

Abstract

The main problem in this study is that the learning media used by teachers are less interesting and varied, so that students are less interested or focused on learning so that students' science learning outcomes are low. The aim of this study was to find out whether the application of interactive animated media as a learning medium could improve science learning outcomes for students in grade IV UPTD SPF SDN 71 Maccini, Soppeng Regency. The type of research conducted was classroom action research (CAR) with two cycles which included three meetings. The subjects of this study were 28 class IV UPTD SPF students at SDN 71 Maccini, Soppeng Regency. Data obtained by observation sheets, tests and documentation. The results showed that there was an increase in students' learning activities through the application of interactive animated media as learning media where in the first cycle the average percentage of students' learning activities was 70.36% and in the second cycle it increased to 91.07%. The average score of science learning outcomes in cycle I was 68.93 and 19 students who completed or 32% were in the poor category, and the average score in science learning outcomes in cycle II increased to 88.68 and 24 students who completed or 86% were in the very high category. From the results of this analysis, it was concluded that the science learning outcomes of fourth grade UPTD SPF students at SDN 71 Maccini Soppeng Regency could be improved through the application of interactive animated media as learning media. So, it can be concluded that the application of interactive animated media as a learning medium can improve students' natural science learning outcomes and increase students' learning activities.

Keywords:Animated Interactive Media, Learning Outcomes, Natural Science

INTRODUCTION

Learning is a conscious and organized effort to create an educational environment and experience that functions with the aim of enabling students to develop their ability to have strength, composure, character, knowledge, be a respectable person and the abilities needed in the eyes of society (National Education System Law No. 2).

Formal, non-formal, and informal learning are all forms of education. According to Musfiqon (2012), formal education comes from schools that follow a relevant curriculum and implement it systematically. Non-formal education comes from things like classroom activities and the like, and informal education comes from families and

communities. According to Suyono & Hariyanto (2012), learning is a process or activity aimed at improving knowledge, skills, behavior, attitudes, and personality. Learning is a very important activity for every human being because humans can develop their potential through learning.

Conventional learning methods will make learning activities seem boring, for example, if science learning is presented conventionally, it will certainly make students quickly bored and will pay less attention to the lesson and of course it will affect learning outcomes and learning activities, learning that seems boring so there needs to be updates to learning activities.

Teachers must be able to present learning materials in an interesting and creative way, for example by using interesting learning media so that students are interested in paying attention to the material being presented well.

The terminology of media varies widely, depending on the perspectives of educational experts. Sadiman defines media as an intermediary or messenger from sender to recipient. In Arabic, according to Arayad, media also means an intermediary (wasail) or messenger from sender to recipient (Musfiqon, 2012).

Gagne in Karti Soeharto (in Musfiqon, 2012) states that media are various types of components in the student's environment that can stimulate students to learn. Briggs states that media are tools to provide stimulation for students so that the learning process occurs. Meanwhile, according to Anderson, learning media is media that allows for a direct relationship between the work of a subject developer and students. In general, it is natural that the role of a teacher who uses learning media is very different from the role of a "regular" teacher.

In general, learning media are physical or non-physical devices that can be used to assist teachers in delivering material so that learning is more effective and the material can be absorbed more quickly by students. Learning media plays a crucial role in a learning activity because it can also improve the quality of learning with today's very rapid technological developments, so there is a need for updates to learning media, namely by applying technology to the creation of learning media so that it will produce more interactive and engaging learning media.

According to Munir (2012) "multimedia comes from the words Multi and media. Multi- comes from Latin, which means many or various, while the word media comes from Latin, namely medium which means an intermediary or which is used to deliver, convey or carry something". The word medium is defined as a tool for distributing and presenting information. Based on that, multimedia is a combination of various media (file formats) in the form of text, images (vectors or bitmaps), graphics, sound, animation, video, interaction, and others that have been packaged into digital files (computerized), used to convey or deliver messages to the public (Fikri & Madona, 2018).

With the existence of interactive learning media, it can improve students' learning outcomes because with this interactive animated media, learning will be interesting and not boring so that students' activities and learning outcomes will increase.

One of the subjects that is suitable for using interactive learning media is Natural Sciences (IPA) which in the learning process aims to understand the concepts of science, the surrounding environment and the scope of science which aims for students to understand the environment well so that students can protect and preserve the

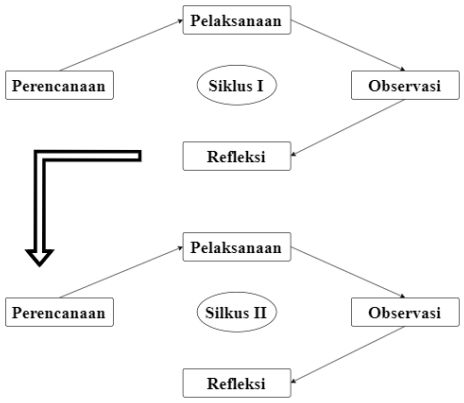
environment. Therefore, science learning in schools needs to be considered so that the objectives of science learning can be achieved well. Based on observations that researchers have conducted at UPTD SPF SDN 71 Maccini, some students do not pay attention to the teacher when giving science lessons, there are still many students who think that science learning is quite long material and learning activities are carried out conventionally, namely the learning media used are less interesting, for example the media used are printed pictures and are less interesting so that students quickly get bored and make student learning outcomes low, namely from the total number of participants totaling 28 people, only 29% get a score where the score of 70 is the KKM that has been set by the school especially for science lessons.

Based on this, researchers tried to use interactive animated learning media using Articulate Storyline 3 to improve student learning outcomes.

Based on the discussion above, the author wants to conduct research with the title "Improving Student Learning Outcomes with Interactive Animation Media on the Material on the Development of Living Things in Class IV of SD 71 Maccini, Soppeng Regency".

RESEARCH METHODS

This research is a Classroom Action Research (CAR) using the Kemmis and McTaggart



design which includes 4 stages of action: (1) planning, (2) implementation, (3) observation and (4) reflection. According to Ardiawan & Wiradnyana (2020), Classroom Action Research (CAR) is a research that aims to find solutions/solve real problems that occur in the classroom systematically while seeking scientific answers to why these solutions are effective in solving problems through actions carried out by the teacher. By solving real problems in the classroom, it is hoped that learning will take place effectively and can improve student learning outcomes.

The research was conducted at SD 71 Maccini with the research subjects being grade 4 students of SD 71 Maccini.

The factors investigated in this study are: 1) Process factors, namely looking at how students' activities are in the ongoing teaching and learning process and 2) Outcome

factors, namely looking at whether the use of interactive animated media as a learning medium can improve students' learning outcomes.

This classroom action research uses a classroom action design model. The research aims to improve student learning outcomes. The classroom action research design has four stages: implementation, planning, observation, and reflection. The flow of the CAR stages is shown in the following figure:

1. Observation

According to Astutik (2015), "Observation is defined as the systematic observation and recording of elements that appear in a phenomenon in the object of research." Therefore, the researcher in this study observed the learning process of students both presented with interactive animated media and those not presented with interactive animated media. The observations or observations carried out by the researcher aimed to match the actual data with the data that had been analyzed.

2. Test

A test is a series of questions or exercises and other tools used to measure skills, intelligence knowledge, abilities or talents possessed by individuals or groups (Arikunto, 2016). The first test is given at the end of cycle I to determine the learning outcomes of students before being taught with interactive animation media and the second test is given in cycle II after students are taught with interactive animation media, the number of tests given is adjusted to the number of cycles until there is an increase in student learning outcomes.

The test used is in the form of multiple choice with 10 numbers and descriptive questions with 5 numbers which are adjusted to the learning material presented.

3. Documentation

The word "document" literally translates to "written object." This method is used to study information about the school and its conditions as the research location. This information source essentially includes all information related to documents. Therefore, in practice, research is conducted by collecting documents or data from the school (Arikunto, 2016).

Results and Discussion

In this section, the results of data processing and learning outcomes during the research will be discussed, where this research was conducted to determine the improvement in science learning outcomes for fourth grade students at UPTD SPF SDN 71 Maccini, Soppeng Regency.

This research consisted of several interrelated stages: planning, implementation, observation, and reflection. These actions were implemented in two cycles: Cycle I and Cycle II. The results of the Cycle I and Cycle II tests, as well as observations of learning activities from observation sheets conducted by the teacher as observer, were analyzed.

1. Cycle I Planning

After deciding to use interactive animated media to teach the material on the development of living things, the next activity is to prepare several things that are needed when carrying out the action by doing the following:

1) Create a learning implementation plan (RPP)

Researchers made a lesson plan (RPP) for the first and second meetings with the basic competencies being Comparing the life cycles of several types of living things and linking them to conservation efforts and Making life cycle schemes of several types of living things in the surrounding environment, and slogans for conservation efforts. The indicators are the life cycle of living things, making schemes of animal and plant growth stages and differentiating the life cycles of butterflies and grasshoppers.

2) Creating cycle test assessment instruments.

Researchers created multiple-choice test questions with a total of 10 questions at the end of the cycle with a time allocation of 70 minutes.

3) Create an observation sheet instrument for student activities.

Researchers created observation sheets for student learning activities which will be used at each meeting to determine student learning activities using interactive animated media.

2. Implementation of Cycle I

In the action stage in cycle I, it was carried out for 3 meetings, namely on April 5 and 6 and June 7, 2023, which were implemented based on the RPP that had been prepared.

Based on the RPP, the implementation of actions at all meetings is initial activities, core activities and closing activities.

1) The first meeting

The first meeting was held on Tuesday, June 5, 2023, with the indicators to be achieved, namely that students can identify the cycle of living things and create a plant development scheme.

In the preliminary activity, the teacher greets and invites all students to pray according to their respective religions and beliefs, then checks the students' readiness and explains the things that will be learned.

Then in the core activity the teacher displays the "life cycle" section on the media on the development of living things and explains what is a life cycle?, the teacher directs students to choose the material "plants", the teacher directs students to choose the material that will be explained first "plant life cycle" or "pollination", the teacher displays/delivers the material that has been selected, the teacher continues to the next material (material that has not been selected by students), the teacher forms groups (the number of groups is adjusted to the number of students) and distributes group worksheets to be worked on in groups and the teacher accompanies students in working on the worksheets that have been distributed.

OnClosing activities or at the end of the lesson, the teacher concludes the material that has been studied and gives students the opportunity to ask questions about material that is not well understood and closes the lesson with a prayer.

2) Second Meeting

The second meeting was held on Tuesday, June 6, 2023, with the indicator that students wanted to achieve being able to differentiate the life cycle of grasshoppers and butterflies (perfect metamorphosis with imperfect metamorphosis).

In the preliminary learning activities, the teacher begins with greetings and inviting all students to pray according to their respective religions and beliefs, then checking the students' readiness and conveying the things that will be learned.

Then, in the core activitiesThe teacher displays the section "animal life cycle", then students are directed to choose the material "with metamorphosis" then, students choose the material that will be explained first "perfect metamorphosis" and "imperfect metamorphosis", the teacher displays/delivers the material that has been chosen by the students, the teacher delivers the next material (which was not chosen by the students), the teacher distributes individual LKPD to be worked on by the students and the teacher accompanies the students in working on the LKPD that has been distributed.

In the closing activity or at the end of the lesson, the teacher summarizes the material that has been studied and gives students the opportunity to ask questions about material that is not well understood and closes the lesson with a prayer.

3) Third Meeting

The third meeting was held on Wednesday, June 7, 2023. First, the teacher started the activity by greeting and reading a prayer and preparing students to work on the cycle test that would be carried out.

Then the teacher distributes the test that will be given.carried out for each student, the test is carried out in an orderly manner until the break bell rings and students are not allowed to cheat or imitate.

This evaluation activity ran smoothly and was collected on time according to the time specified. After the students collected the tests they had completed, the teacher closed the lesson by reading and greeting.

3. Cycle I Observation

The following is the observation data used to determine the learning activities of fourth-grade students at the UPTD SPF SDN 71 Maccini Regency using interactive animated media. Based on the observation results, the researcher describes the data obtained as follows:

Table1Recapitulation of Observation Results of Student Learning Activities in Cycle I, Meeting I and Meeting II

Aspects observed	Meeting		Average	Percentage (%)
	I	II		
Students demonstrate interactions with animated interactive media	15	28	21.5	76.79

Students complete the evaluation on interactive animated media	18	16	17	60.71
Students provide responses to interactive animated media	17	13	15	53.57
Students complete the LKPD correctly	20	28	24	85.71
Students work together well in group work	21	21	21	75

Based on the data in table 4.1 above, a description of student learning activities in cycle I is obtained, where from 28 fourth grade students of UPTD SPF SDN 71 Maccini, Soppeng Regency who were observed regarding aspects of student learning activities using interactive animation media, the results can be explained in a descriptive scale as follows; students showed interaction with interactive animation media by 76.79%; students completed the evaluation on interactive animation media by 60.71%; students gave responses to interactive animation media by 53.57%;85.71% of students completed the LKPD correctly and 75% of students worked together well in group work.

Based on research conducted on fourth grade students of UPTD SPF SDN 71 Maccini, Soppeng Regency, researchers obtained and collected data through the Cycle I test instrument. The results of the Cycle I test can be seen in the following table:

Table 2Natural Sciences Statistics Score*In Cycle I*

Statistics	Statistical Score
Subject	28
Ideal score	100
Highest score	90
Lowest score	30
Score Range	60
Mean	68.93
Standard Deviation	15.48

Source: Cycle I test data

Based on table 4.2 above, it can be seen that the average score for Natural Sciences (IPA) of students was 68.93. The lowest score obtained by students was 30 and the highest score obtained by students was 90 out of the ideal score that could be achieved of 100, this shows that students' abilities are quite varied.

If the Comprehension Score is grouped into five categories, the frequency and percentage distribution is as follows:

Table3Frequency Distribution and Percentage of Natural Science Scores*Cycle I*

Score	Category	Frequency	Percentage (%)
87-100	Very high	4	14
78-86	Tall	7	25
70-77	Enough	8	29
0-69	Not enough	9	32
Amount		28	100

Source: Cycle I test data

From table 4.3 above, it shows that the percentage of Natural Science (IPA) scores after the application of interactive animation media as a learning medium in cycle I was 9 students or 32% in the less category, 8 students or 29% in the sufficient category, 7 students or 25% in the high category and 4 students or 14% in the very high category.

The percentage of science learning outcomes completion obtained from the science learning outcomes of class IV students of UPTD SPF SDN 71 Maccini, Soppeng Regency after implementing cycle I is shown in the following table:

Table4Percentage of Science Completion of Grade IV Students After Implementing Interactive Animation Media in Cycle I

Completion Criteria	Qualification	Frequency	Percentage (%)
70-100	Completed	19	68
60-69	Not Completed	9	32
Amount		28	100

Source: Cycle I test data

Based on table 4.4 above, the learning outcomes of Natural Sciences (IPA) obtained by students with an average score and the completeness of the IPA learning outcomes obtained 32% were categorized as incomplete and 68% were complete. From these results, it can be stated that there was no completeness in the teaching and learning process because only 19 students out of 28 students achieved completeness and the percentage of completeness desired by the researcher had not been achieved. Therefore, the researcher tried to make improvements by continuing the research in cycle II to see how far the students' science learning outcomes were achieved.

4. Cycle I Reflection

At the start of the implementation of cycle I, students were still less enthusiastic and paid less attention to the lesson.So the researcher tried to attract students' attention in participating in the learning process, namely by directing students by providing motivation and providing lots of fun exercises based on the material that had been studied.

Based on the test results in cycle I, the average obtained was68.93which is in the less category. In terms of learning completeness, there are 9 students who did not complete the exam with quite fatal errors, students are still less careful in completing the questions given by the teacher. After the implementation of cycle I, 9 students or 32% are in the less category, 8 students or 29% are in the sufficient category, 7 students or 25% are in the high category and 4 students or 14% are in the very high category. This happens because students are still awkward with the presence of researchers and with interactive animation media as a learning medium applied by researchers so that the condition of students still looks confused with the ongoing learning because it is quite different from what students experience during normal learning so they are still less interested in following the learning process. In addition, students are still hesitant and embarrassed to answer oral questions when asked questions by the teacher, especially if given the opportunity to comment or ask and express opinions, usually only dominated by two to three people and this also occurs in the second meeting and during group work only one or two people work.

Based on the results obtained by students in cycle I, it indicates that the scores obtained by the majority of students are still below the learning completion standards set by the Ministry of National Education, namely the Minimum Completion Criteria Score (KKM), namely 70 and have not reached the success indicators set by the researcher, so the researcher feels the need to hold cycle II as an improvement on cycle I.

1. Cycle II Planning

The activities in cycle II are to repeat the activities that have been carried out in cycle I by making improvements that are still considered lacking in cycle I. The implementation of science learning in cycle II is through the application of interactive animation media as a learning medium.

At this stage, the planning for cycle II was formulated, which was the same as the planning for cycle I, with various steps to improve the deficiencies in cycle I. The steps prepared by the researcher to improve the deficiencies in cycle I were:

1) Conduct further discussions with observers to discuss the problems that caused student learning outcomes to still be adequate after implementing cycle I.
2) Guide students in concluding lesson material and answering questions about the relationship between the material that has been studied and the material that will be studied.
3) Building good communication with students, for example, teachers speak at the right tempo with a clear voice and intonation.
4) Provide more opportunities for students to ask and answer questions.

2. Implementation of Cycle II

The implementation of classroom actions that will take place in cycle II is partly the same as the activities in cycle I. Learning in cycle II is a follow-up to the implementation.The first cycle has been set for 3 meetings, namely 12, 13 and 14 July 2023.

The implementation of action II is almost the same as the implementation of action I, only in the implementation of action II there are improvements that are still needed from action I. The material presented in the implementation of action II, namely the life cycle of animals without metamorphosis and the benefits and efforts to preserve living things. The order of implementation of these actions is as follows:

1) The first meeting

The first meeting was held on June 12, 2023. The expected indicators achieved at this meeting were the life cycles of different types of living creatures (life cycles of animals without metamorphosis).

First of all, the teacher greets and invites all students to pray according to their respective religions and beliefs, the teacher checks the students' readiness and the teacher explains the things that will be learned.

Then in the core activity the teacher displays the "animal life cycle" section, then students are directed to choose the material "without metamorphosis", the teacher displays/delivers the material that has been chosen by the students, the teacher continues the material "animal life cycle without metamorphosis", and explains each stage, the teacher forms groups (the number of groups is adjusted to the number of students) and distributes group LKPD to be worked on in groups and the teacher accompanies students in working on the LKPD that has been distributed.

Then the lesson ends with the teacher summarizing the material that has been studied and giving students the opportunity to ask questions about material that is not well understood and closing the lesson with a prayer.

2) Second Meeting

The first meeting was held on June 13, 2023. The indicators expected to be achieved at this meeting were the benefits of animals and plants and efforts to preserve living creatures.

First of all, the teacher greets and invites all students to pray according to their respective religions and beliefs, the teacher checks the students' readiness and the teacher explains the things that will be learned.

Then, in the core activity, the teacher displays pictures of the benefits of living things and explains the benefits of living things for daily life, the teacher displays efforts to preserve living things, the teacher distributes LKPD which is done individually and the teacher accompanies students in working on the LKPD that has been distributed.

Then the lesson ends with the teacher summarizing the material that has been studied and giving students the opportunity to ask questions about material that is not well understood and closing the lesson with a prayer.

3) Third Meeting

The third meeting was held on Wednesday, June 14, 2023. First, the teacher started the activity by greeting and reading a prayer and preparing students to work on the cycle test that would be carried out.

Then the teacher distributes the test to each student, the test is done in an orderly manner until the break bell rings and students are not allowed to cheat or imitate.

This evaluation activity ran smoothly and was collected on time according to the time specified. After the students collected the tests they had completed, the teacher closed the lesson by reading and greeting.

3. Cycle II Observation

The following data is the result of the second cycle observation used to determine the learning activities of fourth-grade students at the UPTD SPF SDN 71 Maccini Regency using interactive animated media. Based on the observation results, the researcher describes the data obtained as follows:

Table5*Recapitulation of Observation Results of Student Learning Activities in Cycle II, Meeting I and Meeting II*

Aspects observed	Meeting		Average	Percentage (%)
	I	II		
Students demonstrate interactions with animated interactive media	28	26	27	96.43
Students complete the evaluation on animated interactive media.	26	27	26.5	94.64
Students provide responses to interactive animated media	12	24	18	64.29
Students work on LKPD correctly	28	28	28	100
Students work together well in group work	28	28	28	100

Based on the data in table 4.5 above, a description of student learning activities in cycle I is obtained, where from 28 fourth grade students of UPTD SPF SDN 71 Maccini, Soppeng Regency who were observed regarding aspects of student learning activities using interactive animation media, the results can be explained on a descriptive scale as follows; students showed interaction with interactive animation media by 96.43%; students completed the evaluation on interactive animation media by 94.64%; students gave responses to interactive animation media by 64.29%;100% of students completed the LKPD correctly and 100% of students worked together in group work well.

Based on research conducted on fourth-grade students at the UPTD SPF SDN 71 Maccini, Soppeng Regency, the researcher obtained and collected data through a cycle II test instrument. The results of the cycle II test can be seen in the following table:

Table6Natural Science Statistics Scores in Cycle II

Statistics	Statistical Score
Subject	28
Ideal score	100

Highest score	100
Lowest score	60
Score Range	40
Mean	88.68
Standard Deviation	14.10

Source: Cycle II test data

Based on table 4.6 above, it can be seen that the average score for Natural Sciences (IPA) of students was 88.68. The lowest score obtained by students was 60 and the highest score obtained by students was 100 from the ideal score that could be achieved, which is 100. This shows that students' abilities are quite varied.

If the Comprehension Score is grouped into five categories, the frequency and percentage distribution is as follows:

Table7*Frequency Distribution and Percentage of Science Scores for Cycle II*

Score	Category	Frequency	Percentage (%)
87-100	Very high	20	71
78-86	Tall	3	11
70-77	Enough	1	4
0-69	Not enough	4	14
Amount		28	100

Source: Cycle II test data

From table 4.7 above, it shows that the percentage of Natural Science (IPA) scores after applying interactive animation media as a learning medium in cycle II is 4 students or 14% in the low category, 1 student or 4% in the sufficient category, 3 students or 11% in the high category and 20 students or 71% in the very high category.

The percentage of science learning outcomes completion obtained from the science learning outcomes of class IV students of UPTD SPF SDN 71 Maccini, Soppeng Regency after implementing cycle II is shown in the following table:

Table8*Percentage of Science Completion of Grade IV Students After Implementing Interactive Animation Media in Cycle II*

Completion Criteria	Qualification	Frequency	Percentage (%)
70-100	Completed	24	86
60-69	Not Completed	4	14

Amount	28	100

Source: Cycle II test data

Based on table 4.8 above, the science learning outcomes obtained by students The average score and the completeness of the science learning outcomes obtained were 14% categorized as incomplete and 86% complete. From these results, it can be stated that there was completeness in the teaching and learning process because 24 students out of 28 students achieved completeness and had achieved the success indicators set by the researcher. From the results obtained, it can be stated that there was completeness in the teaching and learning process. Therefore, the researcher assumed that the understanding of science learning had been achieved, so the researcher stopped the cycle.

Based on the results of the implementation of actions in cycles I and II, it can be stated that there was an increase in learning outcomes through the application of interactive animation media as a learning medium from cycle I to cycle II. This can be seen in the following table:

Table9Comparison of Results B*Science Learning After Implementing Interactive Animation Media as Learning Media in Cycles I and II*

Cycle	Minimum Competency (KKM)	Not Completed	Completed	Percentage	Category
I	70	9	19	76.86%	Enough
II	70	4	24	89.71%	Very high

Source: Test data from cycle I and cycle II

The data above shows that the average score of students' science learning outcomes in cycle I was76.86%and after being categorized it is in the sufficient category, while in cycle II it can be seen that the average score of students' science learning outcomes is89.71%which is in the very high category. Thus, it can be concluded that the application of interactive animation media as a learning medium can improve learning outcomes.

4. Cycle II Reflection

ImplementationThe actions in cycle II were essentially the same as those in cycle I, but the emphasis was on how students could solve science problems using interactive animation as a learning medium. From the first to the last meeting in cycle II, students' attention and interest in learning showed an increase. This was evident in the increasing number of students who dared to raise their hands and answer questions, as well as the large number of students who expressed their opinions.

In this cycle, it is also apparent that student learning outcomes have improved both in completing practice questions and being active in the learning process. In addition,

students' ability to understand the material has increased. If previously the material was not well understood by students so it had to be explained repeatedly, even three to four times, then in this second cycle, most students have immediately digested and understood the material quickly with one or two explanations. The improvements that occurred in the second cycle can be seen in the presence ofimproving student learning outcomes.

However, among all students up to cycle II, there were several students who scored in the sufficient and insufficient categories. These students were not simply lazy and inattentive to the teacher's explanations, but rather their comprehension skills were relatively slow. After careful observation, one student scored in the insufficient category. Despite the improvement in learning outcomes,Students' science learning, during the research cycles I to II, there were various changes that occurred in students' activities in science lessons. The changes in question are as follows:

1) The frequency of student participation increased from cycle I to cycle II. This indicates that students have the willingness, interest, and attention to follow the lesson.
2) The activeness of students in completing questions, especially assignments given by teachers, has increased from cycle I to cycle II, this is indicated by the large number of students who have collected the assignments that have been given and done them well and correctly.

This change is qualitative data obtained fromobservation sheets recorded in cycles I and II. The changes are as follows:

1) Students' attention to the learning process has increased and progressed. In cycle I, student interest in answering questions was very low, with some students even showing no interest at all. However, after several meetings, they began to express their opinions.
2) The emergence of students' courage in answering every oral question from the teacher has increased, this can be seen from the number of students who raised their hands repeatedly to provide answers, which initially only a few commented at the cycle I meeting, but increased at the cycle II meeting.
3) Students' self-confidence also increases as more and more students dare to provide answers.

DISCUSSION

Based on the results of observations on students in cycle I, it is known that learning through the application of interactive animated media as a learning medium can stimulate student interest and enthusiasm, although the increase is still small. There was an increase in student learning activities through the application of interactive animated media as a learning medium where in cycle I with an average learning activity of 28 students of 70.36% and in cycle II with an average learning activity of 28 students of 91.07%. This is in line with the research of Brecka & Cervenanska (2016) who found that interactive learning media has a positive influence on student learning motivation. With a positive influence on student learning motivation, it also directly has a positive influence

on student learning activities so that student learning activities will experience an increase.

After reflecting on Cycle I, it was discovered that there were still shortcomings in its implementation. The student completion rate had not yet reached 80%. This meant it was not yet considered successful. Therefore, changes were made to the activities deemed necessary to achieve improved results compared to the previous cycle, or Cycle I.

In cycle II, after implementing changes in the actions, it was seen that student motivation had increased. Many students were actively seeking guidance and were brave enough to ask the researcher when there were still things they did not understand. In cycle II, it was also seen that students who did other activities had decreased. As a result of the changes that occurred in this cycle, in cycle II, the average score achieved by students was in the very high category, namely 88.68 with a completion rate of 86%, even though previously in cycle I they obtained an average score of 68.93 with a completion rate of 32%.

This is in line with research by Fredy & Soenarto (2013) which showed that learning presented with interactive multimedia is more effective in improving student learning outcomes. The similarity between that study and this study is that both aimed to determine the improvement in student learning outcomes with the application of interactive multimedia, but the material presented was different: science learning with material on the development of living things. Although there are differences in the material presented, the goal remains the same: improving learning outcomes with interactive media.

So in this case the researcher draws the conclusion that the results of Classroom Action Research (CAR) in improving learning outcomes through the application of interactive animation media as a learning medium after cycle II was implemented can be declared successful.

Conclusion

Based on the research results and discussion in the previous chapter, it can be concluded that:

1. The application of interactive animation media as a learning medium for fourth grade students of UPTD SPF SDN 71 Maccini, Soppeng Regency can improve science learning outcomes in each cycle. There was an increase in student learning activities in the application of interactive animation media as a learning medium where the average value of students in cycle I was 68.93 and increased to 88.68 in cycle II. With the increase in student learning outcomes, the science learning mastery of fourth grade students of UPTD SPF SDN 71 Maccini, Soppeng Regency also increased. In cycle I, out of 9 (32%) students achieved learning mastery with the less category, while in cycle II as many as 24 (86%) students achieved learning mastery with the high category and classical learning mastery was achieved.
2. In addition to the improvement in learning outcomes, improvements also occurred in

student learning activities with the application of interactive animation media as a learning medium where in cycle I with an average student learning activity of 70.36% which is categorized as sufficient and in cycle II with an average student learning activity increased to 91.07% if categorized as very high. This is due to the application of interactive animation media as a learning medium also involving students more actively in the learning process. So there is an increase in student learning activities from cycle I to cycle II.

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