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Efforts to Improve Understanding of Energy Concepts in Science Subjects through Constructivism Learning Model for Students of Class IV UPT SDN 59 Pinrang

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Abstrak

Penelitian ini bertujuan untuk mendeskripsikan proses pembelajaran menggunakan model konstruktivisme yang dapat meningkatkan hasil belajar Ilmu Pengetahuan Alam konsep energi siswa kelas IV UPT SDN 59 Kabupaten Pinrang. Jenis penelitian ini adalah Penelitian Tindakan Kelas (PTK). Subjek pada penelitian ini adalah siswa kelas IV UPT SDN 59 Kabupaten Pinrang tahun ajaran 2023/2024 yang berjumlah 20 siswa. Desain penelitian ini meliputi (1) tahapan perencanaan, (2) pelaksanaan, (3) pengamatan dan (4) refleksi. Metode pengumpulan data yang digunakan dalam penelitian ini adalah (1) tes, (2) observasi dan (3) dokumentasi. Instrumen penelitian yang digunakan adalah lembar observasi dan tes. Berdasarkan hasil penelitian menunjukkan bahwa penggunaan model konstruktivisme dapat meningkatkan hasil belajar IPA konsep energi pada siswa kelas IV UPT SDN 59 Kabupaten Pinrang. Rata-rata hasil belajar pra siklus sebesar 54,52 dan sedikit mengalami peningkatan pada siswa secara keseluruhan pada siklus I sebesar 63,3, setelah dilakukan perbaikan dengan membagi kelompok sesuai hasil belajar siklus I, membagi tugas pada setiap anggota kelompok, memberikan waktu kepada siswa untuk melakukan proses pemahaman konsep energi menggunakan model konstruktivisme dapat meningkatkan hasil belajar IPA pada siswa menjadi 75,24 pada siklus II.

Kata Kunci: Model Konstruktivisme, Pemahaman Konsep

Abstrack

This study aims to describe the learning process using the constructivism model that can improve the learning outcomes of Natural Science on the concept of energy for students in class IV UPT SDN 59 Pinrang Regency. This type of research is Classroom Action Research (PTK). The subjects in this study were fourth grade students of UPT SDN 59 Pinrang Regency in the 2023/2024 school year totaling 20 students. This research design includes (1) planning stages, (2) implementation, (3) observation and (4) reflection. The data collection methods used in this study were (1) test, (2) observation and (3) documentation. The research instruments used were observation sheets and tests. Based on the results of the study, it shows that the use of constructivism model can improve the learning outcomes of energy concept science in class IV UPT SDN 59 Pinrang Regency. The average pre-cycle learning outcomes of 54.52 and a slight increase in overall students in cycle I of 63.3, after improvements were made by dividing groups according to the learning outcomes of cycle I, dividing tasks to each group member, giving students time to carry out the process of understanding the concept of energy using constructivism models can improve science learning outcomes in students to 75.24 in cycle II.

Keywords: Constructivism Model, Concept Understanding.

Intruduction

Currently, technology is developing very rapidly, so this must be followed by an increase in the quality of education. Science lessons are one of the lessons that underlie the development of science and technology and play an important role in advancing human thinking. To master and create technology in the future, mastery of science lessons is needed from an early age. Likewise with science lessons, improving the quality of science education is absolutely necessary but it needs to be realized that improving the quality of science education cannot be realized without improving the science learning process.

Science learning is closely related to understanding and responding to physical understanding in the physical environment around them. This means that in science learning students must be mentally active in building knowledge structures based on experience. However, in reality, in the field, the science learning process sometimes experiences obstacles, such as media and teaching aids, minimal learning support and the selection and use of inappropriate learning methods. From the results of observations made by researchers at UPT SDN 59 Pinrang, it was found that students were less interested in learning science, especially on the concept of energy and its uses in class IV. This can be seen from the results of daily test scores where the score is below 60% (below the KKM score).

The low student learning outcomes are caused by several things. First, the method used by teachers at SDN 59 Pinrang in the learning process is generally the lecture method and learning that only includes students coming, sitting and writing material that has been written on the board or dictated by the teacher, listening to the teacher explain the material and doing assignments. Learning lacks apperception of students, so that the active role of students in constructing their knowledge is still less meaningful, so there needs to be collaboration between teachers and students. Third, the teacher lacks the ability to explore students' experiences related to learning materials with facts in the field that students often encounter. And teachers generally have not been able to use learning methods that are easy, comfortable, and fun, and do not involve students to be active in the teaching and learning process so that learning is not on target, and results in not achieving the material and learning objectives optimally.

Based on the facts above, it is necessary to create conditions that are effective, conducive and creative, and how to keep students from getting bored and bored in the learning process. The constructivism approach is expected to be a solution to the problems that exist in UPT SDN 59 Pinrang. The constructivism approach is very interesting when applied in the science learning process, especially on the concept of energy and its use, because it is in accordance with the characteristics of constructivism itself, which involves students to play an active role in participating in the learning process. So that students become more creative and motivated in following the learning process. Because basically the learning model with this constructivism approach focuses more on student success in organizing their experiences. In other words, activities in science learning with constructivism models always develop mind-on, which means providing opportunities for students to dialogue with teachers and friends and develop their thinking skills. For example, on the concept of energy and its use, students are encouraged to reveal their initial knowledge related to energy sources that are often used at home.

Likewise, hands-on development means that students become skilled in developing manipulative activities with their hands and motor skills that allow their sensory organs to function directly in observation and experience. For example, students can observe the wind energy that can move the propeller and the pinwheel model made.

Through the application of the constructivism model, it is hoped that student learning outcomes will improve, and make students confident in developing their abilities as a whole and integrated. Therefore, researchers need to strive to improve student learning outcomes by using the constructivism approach method in learning science, especially on energy material and its use.

Based on the background of the problems as mentioned above, the problem formulation in this Classroom Action Research is whether the use of the Constructivism Learning Model can improve the understanding of energy concepts in science subjects of Class IV UPT SDN 59 Pinrang students. The purpose of this study was to determine the application of the Constructivism Learning Model to improve understanding of the concept of energy in science subjects for Class IV UPT SDN 59 Pinrang students in the 2023/2024 school year.

Method

The research subjects were fourth grade students of UPT SDN 59 Pinrang, Lanrisang Subdistrict, Pinrang Regency in the 2023/2024 academic year with a total of 20 students. The object of research is the use of constructivism learning models in learning the concept of energy in science subjects.

The research was conducted at UPT SDN 59 which is located at Lanrisang Kecematan Lanrisang, Pinrang Regency, South Sulawesi, the reasons why the author conducted research at this institution are: a. As a place where the author carries out the profession as a subject teacher so that the author knows the condition of the school. b. The situation of students who still lack interest in learning science, makes the author to conduct research at UPT SDN 59 Pinrang. c. Based on observations of the condition of the school, the author is interested in contributing to improving the quality of learning for students at UPT SDN 59 Pinrang and the research process was carried out in even semesters, namely in January 2024 to March 2024.

The population used by the author was class IV students of UPT SDN 59 Pinrang in the 2023/2024 school year and selected UPT SDN 59 Pinrang class IV students totaling 20 students consisting of 11 female students and 9 male students as samples.

Data collection was done with tests and non-tests. Tests in the form of pretests and posttests using multiple choice questions. Non-test in the form of observation guidelines for student and teacher activities when learning takes place. Student and teacher activity observation data were used to analyze the implementation of the constructivism approach applied. Teacher activity observation data to see how to teach teachers during the learning process by applying the constructivism approach learning model.

In this study, there are two data analysis techniques used, namely test data analysis techniques and non-test data analysis techniques. The data generated from the test instrument will be analyzed for increasing aspects of science knowledge with a constructivism approach using the normalized gain formula. Data generated from observation guidelines were analyzed descriptively to measure the quality of learning during the treatment in the form of the application of experimental methods.

Data analysis of test instruments in this study used normalized gain (Normalized-Gain). Gain is the difference between the initial test score and the final test, the gain shows an increase in understanding of students' mastery of concepts after learning is carried out by the teacher. Normalized-Gain to determine the results of the initial test (pretest) and the final test (posttest). Normalized-Gain formula:

$$N - Gain = \frac{skor\ posttest - skor\ pretetst}{skor\ ideal - skor\ pretest}$$

By Category:

N-Gain = N -Gain < 0,30

N-Gain = 0,30 < N-Gain

N-Gain = N -Gain > 0,30

Non-test data analysis in this study was processed qualitatively. This non-test data is obtained from observation guidelines in the form of indicators of teacher and student activities in the learning process. after being analyzed, the data is then described in narrative data exposure.

The presentation of teacher activities during learning can be calculated using the formula:

$$NP = \frac{R}{SM} \, x \, 100\%$$

Keterangan:

NP = Percentage value sought or expected
R = raw score obtained by the student
SM = ideal maximum score of the test concerned
100 = fixed number

The average score of the resulting data will be divided into four ordinal scale categories, namely excellent, good, sufficient and less, very less as classified in the following table 1:

Table 1. Classification of teacher activities

Score	Category
5	Very good
4	Good
3	Fair/medium
2	Less
1	Very Less

To calculate the percentage of students' constructivism abilities in the observation guidelines, it can be calculated using the formula: The results of the percentage calculation above can be categorized according to the level of mastery, and the categories can be seen in the following table:

Table 2. Criteria for Percentage Value of Non-test Instruments

Score	Category
80 – 100%	Very good
70 – 79%	Good
60 – 69%	Fair
50 – 59%	Poor
0 – 40%	Very Poor

This study is said to be successful or students are declared to have improved learning outcomes if they reach the following indicators: Students reach minimum completeness: 68% Class reaches learning completeness: 90% This success indicator is a provision that already exists in UPT SDN 59 Pinrang as a reference for the learning process.

Result and Discussion

Cycle I

Classroom Action Planning The results of the MODULE AJAR made by researchers using the constructivism learning model are generally good and can be used for learning activities. However, there are still some that need to be improved, among others: 1) In the learning material, the learning material should be written. 2) In linking learning materials less relevant in the application of everyday life. 3) When delivering learning the tone of voice is less varied.

Implementation of Action At this stage what researchers do for learning heat energy is to use a constructivist learning model. At the beginning of delivering the learning material, the researcher conditions the students to be ready to receive learning, the teacher takes attendance, prepares the necessary tools and then motivates the students on the importance of learning science.

Science subjects are of great use and can be used and applied in everyday life. The teacher held a question and answer session about heat energy. Students can mention the sources of heat energy. After students are really ready to learn, the teacher conveys the learning objectives to be achieved.

In the core activity, the teacher explains heat energy. The teacher tells the students in turn to mention the sources of heat energy by discussing the group students can find the source of heat energy. In group discussions the teacher distributes activity sheets. Then done in groups. The teacher together with students conclude the results of the discussion.

At the end of the lesson, the teacher reiterates about heat energy. The teacher gives students the opportunity to ask questions that have not been understood. After students understand the material provided, the teacher continues to conduct a learning evaluation. The evaluation sheet is done individually. When students do the evaluation, the teacher reminds students to do the easier questions first. The results of student work are collected to close the learning. The teacher gives homework assignments and motivates students to study harder.

Observations were carried out by researchers together with supervisors. The supervisor's task is to observe the implementation of learning activities during the learning process. The results of the supervisor's observations, the implementation of learning activities is good, the teacher has been able to activate students. Students feel happy, with the constructivism learning model can recognize, explore (determine) prove heat energy. Students are happy and eager to listen and observe the explanation from the teacher. Interaction between teachers and students is well established. This can be seen from the activeness of students in answering some of the questions asked by the teacher. In addition, students also actively ask the teacher about material that has not been understood. Interaction between students was also well established and familiar. Group leaders help their group members who do not understand. Activity sheets and evaluation sheets have been well used as measuring tools. Things that need to be improved again in learning activities.

In the initial activities, the teacher still felt stiff in opening the lesson. The tone of voice is less varied. So that it looks like a lecture. In the core activities, during group work the teacher has not mastered classroom management, there are still some groups that are crowded, the teacher in guiding the group is less evenly focused on only one group.

Reflection Researchers conduct evaluation and reflection of planning, implementation and observation activities collaborated with supervisors. Research at this stage is expected to find shortcomings and advantages during learning so that it can be used to improve further learning. Before the class action research was held, the value of student learning outcomes for science subjects was still low. This can be seen in table 4.1 below:

Table 3. Pre-cycle Science Learning Outcome Values

No	Interval Value	f	Description
1	70 – 100	2	Completed
2	0 – 69	18	Not Completed
	Total	20	

Based on table 3, the data shows that there are 2 students who have met the completeness (KKM) while there are 18 students who have not met the completeness. Therefore, the researchers conducted research by applying the constructivism learning model in cycle I.

In cycle I, qualitative and quantitative data were obtained. Qualitative data are student activity sheets and teacher performance sheets while student learning data is obtained through written tests. The test instrument used was a short form. Data on student learning outcomes in cycle I can be seen in the following table:

Table 4. Science Learning Outcome Score Cycle I

No	Interval Value	f	Description
1	70 – 100	10	Completed
2	0 – 69	10	Not Completed
	Total	20	

Based on table 4, obtained data on learning outcomes that have occurred in cycle I as many as 10 students have met the completeness (KKM) while there are 10 students who have not met the completeness, considering that in cycle I has not reached the success indicator of 80%, the researchers continued to cycle II.

Cycle II Classroom Action Research for cycle II has been completed in the third and fourth weeks of February 2024. The results of the implementation of cycle I are detailed as follows:

Classroom Action Planning The results of the MODULE AJAR made by researchers using the constructivism learning model are generally good and can be used for learning activities. Researchers have corrected the shortcomings contained in the MODULE AJAR and at the time of implementation.

Implementation of Action At this stage, what researchers do for learning heat energy is to use the constructivism learning model. At the beginning of conveying learning materials, researchers conditioned students to be ready to receive learning, teachers took attendance, prepared the necessary tools and then motivated students on the importance of learning science. Science subjects are useful and can be used and applied in everyday life. The teacher held a question and answer session about heat energy. Students can mention the sources of heat energy. After the students are really ready to learn, the teacher conveys the learning objectives to be achieved.

In the core activity, the teacher explains heat energy. Without being told, students can simultaneously mention the sources of heat energy. By discussing in groups, students can find sources of heat energy. In group discussions the teacher distributes activity sheets. Then work in groups. The teacher together with students conclude the results of the discussion.

At the end of the lesson, the teacher reiterates about heat energy. The teacher gives students the opportunity to ask questions that have not been understood. After students understand the material provided, the teacher continues to conduct a learning evaluation. The evaluation sheet is done individually. When students do the evaluation, the teacher reminds students to do the easier questions first. The results of student work are collected to close the learning. The teacher gives homework assignments and motivates students to study harder.

Observations were carried out by researchers together with supervisors. The supervisor's task is to observe the implementation of activities during the learning process. The results of the supervisor's observations, the implementation of learning activities is good, the teacher has been able to activate students. Students feel happy, with the constructivism learning model can recognize, explore, find, prove heat energy. Students are happy and eager to listen and observe the explanation from the teacher. Interaction between teachers and students is well established. This can be seen from the students' activeness in answering several questions asked by the teacher. In addition, students also actively ask the teacher about material that has not been understood. Interaction between students was also well established and familiar. The activity sheet and evaluation sheet were well used as measuring tools.

In the initial activities, the teacher was not rigid in opening the lesson and was able to condition the students to receive the lesson. The tone of voice has varied so that children are more excited and motivated. In the core activities, during group work, the children were under control and could work in an orderly manner. The teacher has been evenly distributed in providing guidance.

Reflection The researcher conducted an evaluation and reflection of the planning, implementation and observation activities collaborated with the supervisor. Research at this stage is expected to find shortcomings and strengths during learning so that it can be used to improve further learning. Cycle II daily test data as in the table below.

Table 5. Science Learning Outcomes Cycle II

No	Interval Value	f	Description
1	70 – 100	17	Completed
2	0 – 69	3	Not Completed
	Total	20	

Discussion

Based on the data in table 1, it can be seen that the number of students is 20, the average score is 75.24, the highest score is 75 and the lowest score is 40. The score data can be grouped as in the following table:

Table 6. Grouping of Grades in the Pre-Classroom

Grup	Value	f	%
A	85 – 100	0	0
B	65 – 84	4	20%
C	< 65	16	80%
Total		20	100%

After grouping by score, it is known that: 1) Group A had no one who scored 85-100. 2) Group B who scored 65-84 had 4 students. 3) Group C who scored <65 there were 16 students. The number of students who scored above 65 was 4 students who were categorized as complete in learning or 20% while 16 students were categorized as incomplete or 80%. Based on this data, a diagram can be made as follows:

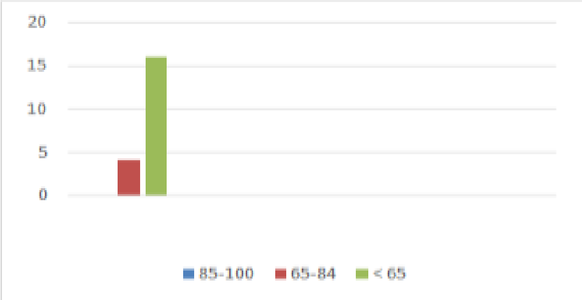

Figure 1. Grouping of Pre-Classical Grades

Cycle I Based on the data in table 4.1, it can be seen that the number of students is 20, the average score is 63.33, the highest score is 80 and the lowest score is 50. The score data can be grouped as in the following table:

Tabel 7. Pengelompokan Nilai Siklus I

Group	Value	f	%
A	85 – 100	0	0
B	65 – 84	10	50%
C	< 65	10	50%
Total		20	100%

After being grouped by score, it was found that: 1) There were no students in Group A who scored 85-100. 2) Group B who scored 65-84 had 10 students. 3) Group C who scored <65 there were 10 students. The number of students who scored above 65 was 10 students who were categorized as complete in learning or 50% while 10 students were categorized as incomplete or 50%. Based on this data, a diagram can be made as follows:

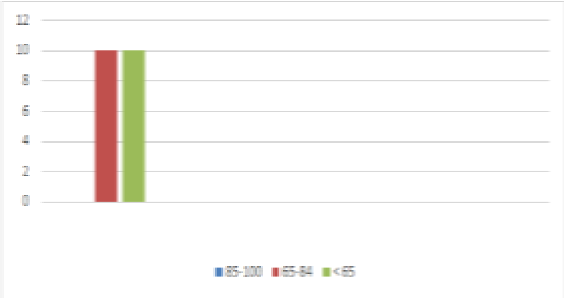

Figure 2 Grouping of Cycle I Grades

Based on the results of observations and evaluations of science learning, there have been improvements in several things including: 1) Students are starting to be happy in science lessons. 2) Students are already actively learning in the classroom. 3) Students are no longer bored. 4) The average student learning outcomes have increased by 8.81% from 54.52 to 63.33, the number of students who are complete is 10 people or 50% and those who are not complete are 10 people or 50%.

Cycle II Based on the data in table 4.3, it can be seen that the number of students is 20, the average score is 75.24, the highest score is 95 and the lowest score is 60. The score data can be grouped as in the following table:

Table 8. Grouping of Cycle II Grades

Group	Value	f	%
A	85 – 100	6	30%
B	65 – 84	11	55%
C	< 65	3	15%
Total		20	100%

After being grouped by score, it is known that: 1) There were 6 students in Group A who scored 85-100. 2) Group B who scored 65-84 had 11 students. 3) Group C who scored <65 there were 3 students. The number of students who scored above 65 was 17 students who were categorized as complete in learning or 85% while 3 students.

Figure 2. Grouping of Cycle II Grades

To determine the success of the research, there needs to be a comparison between the pre-cycle, cycle I and cycle II test scores. Comparison of learning outcomes can be seen in table 9 below:

Table 9 Comparison of Grades in Pre-Cycle, Cycle I and Cycle II

Group	Value	Pre-Cycle	Cycle I	Cycle II
A	85 – 100	0	0	6
B	65 – 84	4	10	11
C	< 65	16	10	3

Based on the table above, the following diagram can be made:

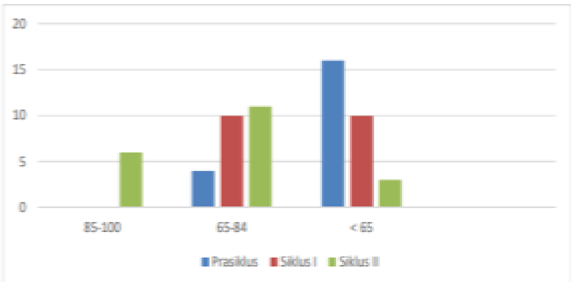

Figure 4. Comparison of Grades in Pre-Cycle, Cycle I and Cycle II

Based on the data displayed in the diagram above, there was a significant increase in the number of students who achieved learning completeness as well as an increase in the average student learning outcomes in each cycle implemented. This improvement can be described in more detail in cycle II, where there were very positive changes in students' attitudes and learning outcomes towards science subjects.

In cycle II, students' conditions showed striking improvements in several aspects, including:

Student Interest in Science Subjects: At this stage, students began to show greater interest in science subjects. This can be seen from the increased enthusiasm of students in participating in lessons, which previously may have been less favored or considered difficult. This greater interest certainly has a positive effect on student learning outcomes.

Student Activity in the Classroom: In addition to increased interest, students also began to be more actively involved in the learning process in the classroom. They were no longer passive or just listening, but began to participate in discussions, ask questions, and interact with the teacher and fellow friends. This activeness is an indication that students are more cognitively and emotionally engaged in the learning process.

Boredom Elimination: In addition, the boredom that students may have felt in the previous cycle seemed to be significantly reduced. With a learning strategy that is more interesting and in accordance with students' needs, the learning atmosphere becomes more enjoyable. The elimination of boredom is an important factor that contributes to the increase in students' learning motivation.

Increased Average Learning Outcomes: Based on the evaluation results, the average student learning outcomes increased by 11.91%, from 63.33 in cycle I to 75.24 in cycle II. This increase shows that the methods or strategies applied during cycle II were effective in improving students' understanding of the material taught.

Number of Students Who Have Completed Learning: In terms of learning completeness, in cycle II, as many as 17 students or 85% of the total students have achieved scores above the Minimum Completion Criteria (KKM). This indicates that the majority of students have understood the material well and are able to meet the set standards. Meanwhile, 3 students or 15% have not yet achieved mastery, which indicates that there is still room for improvement in the learning approach for a small number of students.

Based on the analysis of the discussion above, when compared to the predetermined performance indicators, namely the average student learning outcomes test score above the KKM value of 65, and the percentage of students who score above the KKM is at least 70%, then this Classroom Action Research (PTK) can be declared successful. This is because at the end of cycle II, the average student learning outcomes reached 75.24, with 85% of students (17 people) who were complete, and only 15% of students (3 people) who were not complete. This success shows that the applied learning intervention has been able to improve student learning outcomes significantly and effectively in achieving the expected learning objectives.

Conclusion

Based on the results of the Classroom Action Research (PTK) that has been carried out in two cycles, it can be concluded that the hypothesis formulated at the beginning of the research is proven correct. The use of constructivism learning model is able to significantly improve the understanding of the concept of energy in students of class IV UPT SDN 59 Pinrang Regency. This is evident from the increase in the average score and percentage of students' classical completeness from the initial condition before the action was taken until the second cycle.

In the initial condition, before the action was implemented, the students' average score only reached 54.52 with a percentage of classical completeness of 20%. This showed that the majority of students did not understand the concept of energy well, and there was a need for more effective intervention in the learning process. After the first action was taken in cycle I, the class average score increased to 63.33 with a percentage of classical completeness of 50%. Although there was a significant increase, this result showed that there were still half of the students who had not achieved learning completeness. Therefore, the learning action was continued to cycle II.

In cycle II, the class average score increased even higher, reaching 75.24 with a percentage of classical completeness of 85%. This increase not only showed that most students had achieved learning completeness, but also that the constructivism learning model applied had succeeded in improving students' understanding of the energy concept as a whole.

The implementation of learning activities using the constructivism model makes the classroom atmosphere more interesting and fun for students. This model encourages students to be more actively involved in the learning process, both through group discussions and in solving the problems presented. Students' activeness and participation in learning becomes higher, which in turn contributes to their improved understanding of concepts and skills. In addition, the constructivism learning model is also proven to be able to increase students' creativity and strengthen group cooperation. Students become more open in sharing ideas and working together with their friends to understand the material taught.

Students' understanding of the concept of energy, as well as their attitudes and skills, also improved significantly. Thus, the application of constructivism learning model in science learning in grade IV can be said to be successful and very effective. This model not only improves concept understanding, but also develops various other skills that are important in the learning process, such as critical thinking skills, cooperation, and creativity.

Based on the findings and implications of the results of this study, several suggestions can be made to improve and enhance the quality of learning in the future:

1. For Schools: Schools should pay special attention to efforts to improve the quality of learning by conducting training related to innovative learning methods such as constructivism. This training is important to assist teachers in developing their competencies and ensuring that they can implement learning

that is in line with student needs and curriculum objectives. Thus, learning objectives can be achieved as expected, and students can benefit from a more meaningful learning process.

2. For Teachers: a. Improve Professional Competence: Teachers should continue to develop their competence by designing a more creative and innovative learning process. An interesting learning process will make students more interested and motivated to learn, so that learning becomes more conducive and meaningful. Thus, students do not easily feel bored and remain motivated to follow the learning process, which in turn will improve their understanding of the concepts taught, such as the concept of energy in this case. b. Utilization of Learning Media: Teachers should utilize appropriate teaching media to support the learning process. The right media not only makes it easier for students to understand concepts, but also provides a more varied and interesting learning experience. The use of creative and innovative media can stimulate student interest and make learning more meaningful.

3. For Students: Students need to be more active in developing their creativity, liveliness, and motivation to learn. Students are also encouraged to be more courageous in expressing their ideas and opinions during the learning process. The courage to speak and discuss will help students in developing their understanding of the material taught and improve their learning achievement. In addition, by being more active in the learning process, students can hone their critical thinking skills and social skills.

4. For Other Researchers: For other researchers who want to study similar issues, it is recommended to be more careful in conducting theoretical studies related to learning that utilizes props and concrete objects. Further research that covers aspects that have not been covered in this study, such as the use of concrete props in learning energy concepts, can complement existing shortcomings and become an effective alternative in improving students' concept understanding. Thus, more comprehensive and in-depth research results can be obtained, which in turn will contribute more to improving the quality of science learning in elementary schools.

By paying attention to these suggestions, it is hoped that learning in class IV UPT SDN 59 Kab. Pinrang, especially in science subjects, can continue to be improved. The application of this proven effective constructivism learning model, if applied consistently, can be a solution in improving the quality of learning and understanding of student concepts in the future.

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