Application of Contextual Teaching and Learning Methods to Improve Students' Learning Outcomes

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ABSTRACT
Based on observations during teaching in class IV SDN Cikarang City 04, the learning outcomes of class IV students are still relatively low with an average score obtained of 59, the learning outcomes of class IV students are still relatively low because the learning process still uses a conventional approach and the lack of use of teaching aids. Contextual Teaching and Learning is a learning method that helps teachers relate the material they teach to situations in real life. The purpose of this learning improvement research is to improve the quality of learning carried out by teachers by applying the Contextual Teaching and Learning method to science learning in class IV SDN Cikarang City 04 as an effort to improve student learning outcomes. From the results of the research that has been conducted, the following conclusions can be obtained: the ability of teachers to teach by applying contextual methods is always developing and is already in the very good category in the final cycle. This can be seen from the average teacher activity of 44% in the fairly good category and in cycle I, it increased to 64% in the good category, and finally, in cycle II, it reached 84% in the very good category. From the results of this analysis, the contextual method can be used as an alternative in efforts to improve the learning outcomes of grade IV students of SDN Cikarang City 04 in the science subject.

Keywords: CTL Method, Learning Outcomes, Natural Sciences

INTRODUCTION

The development of science and technology today is very beneficial for the progress of human civilization (Sudarsih, 2024). The role of education has a great influence on the rapid development of science and technology (Fu'ad et al., 2022). Education is a means to improve the quality of human resources (HR) in carrying out national development (Suparman, 2023). In the appendix to the Regulation of the Minister of National Education (*Permendiknas*) Number 22 of 2006, it is explained that the group of science and technology subjects in SD/MI/SDLB is intended to introduce, respond to, and appreciate science and technology, as well as instill the habit of critical, creative, and independent scientific thinking and behavior.

According to the Minister of National Education Regulation, Number 22 of 2006 concerning the content standards for elementary and secondary education units, Natural Sciences (IPA) is related to how to find out about nature systematically, so that IPA is not only the mastery of a collection of knowledge in the form of facts, concepts or principles but is also a process of discovery (Yaman, 2016). Science education is directed at inquiry and action so that it can help students gain a deeper understanding of the natural environment.

Natural Sciences (IPA) is a science that discusses natural phenomena that are systematically arranged from the results of experiments and observations carried out by humans (Mutmainnah, 2020). Therefore, science learning is expected to be a place for students to learn about themselves and the environment, as well as aspects of further development in applying it to everyday life. The science learning process emphasizes providing direct experience to develop competencies in order to explore and understand the environment scientifically. The results of learning science in elementary schools must of course be linked to the objectives of science education listed in the outline of the science teaching

program in schools without forgetting the nature of science itself. Science learning in elementary schools aims to help students gain ideas, understanding, and essential skills (life skills) as citizens so that students can relate these science concepts to everyday life.

Learning will be more meaningful if children experience what they are learning, not just know about it (Ida Mutiawati, 2023). Learning that is oriented towards mastery of material has proven successful in short-term recall competitions but has failed in equipping children to solve long-term life problems. Science learning in Elementary Schools/Islamic Elementary Schools emphasizes providing students with direct learning experiences through the use and development of process skills and scientific attitudes. The reality is that in the subject of Natural Sciences (IPA) with the conventional concept, only 20% of students are able to master the material or complete the learning compared to the learning objectives.

Based on initial observations, researchers conducted research assisted by colleagues as observers to identify deficiencies/weaknesses that have been carried out from planning, implementation, and technical types of learning evaluations provided, then learning problems that are often experienced by fourth-grade students of SDN Cikarang City 04 can be identified, namely: 1. The student learning process looks passive, students only listen to the teacher's explanation and ask questions. 2. Low attitudes and motivation of students to learn in science lessons. 3. Low cognitive and psychomotor abilities of fourth-grade students in the material of the human skeleton and organs. 4. Utilization of learning methods that are appropriate to student characteristics, material concepts, and student learning styles that are less interesting. 5. Utilization of learning media that are appropriate to student characteristics, material concepts, and student learning styles that are less appropriate.

Based on the above problems, a teacher must use an approach or can also use the right learning method so that what is learned by students can be understood well and student learning outcomes increase. According to experts, viewing the approach is as a set of assumptions that are most related and concerned with the nature of learning, the nature of teaching, and the nature of the discipline being studied. The definition of approach is also interpreted as our starting point or perspective on the learning process. So, it is clear that in the learning process, the approach is very important. The approach functions as a general and direct guideline for the learning methods to be used. With that approach will reduce various learning methods and learning techniques that can be used in the learning process. There are learning approaches that can be used in the teaching and learning process in schools, one of which is the Contextual Teaching and Learning/CTL learning approach, a learning concept that helps teachers link the material being taught to real life. It encourages students to make connections between the knowledge they have and its application in their daily lives. This process involves seven main components of effective learning, namely: constructivism, questioning, finding (Inquiry), learning community, modeling, reflection, and actual assessment (Authentic Assessment). By mastering these aspects of skills, it can improve student learning outcomes, especially in science learning. The importance of implementing the natural environment as a learning approach because with teaching and learning activities with this approach pattern, it can complement teacher activities in bringing students to an understanding of the true meaning of the concept.

One of the teacher's efforts in improving science learning outcomes is by using the CTL approach. The CTL approach is a strategy that fully involves students in the learning process and encourages them to be active in studying the material according to the topic to be studied and connecting it to real-life situations.

Starting from the background of the problem and the causal factors and comparing the results of other parties' research, the improvement of learning through Classroom Action Research takes the title "Through the Application of Contextual Teaching and Learning Methods Improving Science Learning Outcomes About the Human Skeleton and Organs in Class IV SDN Cikarang City 04."

METHOD

Based on the above problems, a teacher must use an approach or can also use the right learning method so that what is learned by students can be understood well and student learning outcomes increase. According to experts, viewing the approach is as a set of assumptions that are most related to and concerned with the nature of learning, the nature of teaching, and the nature of the discipline being studied. The definition of approach is also interpreted as our starting point or perspective on the learning process. So, it is clear that in the learning process, the approach is very important. The approach functions as a general and direct guideline for the learning methods to be used. With that approach will reduce

various learning methods and learning techniques that can be used in the learning process. There are learning approaches that can be used in the teaching and learning process in schools, one of which is the Contextual Teaching and Learning/CTL learning approach, a learning concept that helps teachers link the material taught with real life (Saleh et al., 2022). It encourages students to make connections between the knowledge they have and its application in their daily lives. This process involves seven main components of effective learning, namely: constructivism, questioning, inquiry, learning community, modeling, reflection, and authentic assessment.

RESULT AND DISCUSSION

The subjects of this study were fourth-grade teachers at Cikarang City 04 Private Elementary School (SDN) who were implementing the contextual teaching and learning method (CTL) in the Natural Sciences (IPA) subject. This research was conducted at SDN Cikarang City 04, a public elementary school located in Cikarang City Village, North Cikarang District, Bekasi Regency. The research process took place in two cycles. This research was carried out in two cycles. The first cycle was carried out on Wednesday, May 22, 2023, while the second cycle was carried out on Wednesday, May 31, 2023.

The parties who have greatly helped the smooth running of this research include Mr. Insanul Kamil, M. Pd as tutor and supervisor I, Mr. Arminan, S. Pd as Principal of SDN Cikarang City 04, Mrs. Tati Nurhayati, S.Pd.SD as supervisor II, fellow students of Universitas Terbuka, and parents who always provide support and prayers. Not to forget, I also express my gratitude to fellow teachers and students of grade I SDN Cikarang City 04 who have contributed to this research.

The researcher acts as the main instrument and action designer. The researcher as the action designer means the researcher who makes the learning design during the research. During the research, the researcher needs help from other teachers as observers, in order to facilitate the research activities and have the goal of solving problems that arise in the classroom during learning.

The design of the learning improvement procedure used in this study is to use a classroom action research design using 2 cycles where each cycle consists of planning, implementation (acting), observation, and reflection. The design can be seen in Figure 1.

Figure 1. Research Design

1. Research Procedure

The learning process starts from the pre-cycle and learning improvement plan in 2 cycles for science subjects. The things prepared in this research include:

- Creating a learning scenario, consisting of steps in learning related to the desired improvements and the actions set.
- Preparing the facilities needed in implementing learning improvements including preparing the learning media used.
- Preparing learning devices and research instruments.

At the stage of implementing the learning scenario in accordance with what is done is implementing the learning scenario according to what is planned. Observations are made on teachers and students during the learning process. Specifically for teacher observation in the planning and implementation of the learning process, the Teacher Ability Assessment Tool (APS) sheet is used.

A. Pre-Cycle
1) Planning
• The teacher prepares the pre-cycle lesson plan that will be used in the learning process and is developed based on the syllabus
• The teacher and students pray together to start the lesson
• The teacher starts the lesson by greeting and checking student attendance
2) Implementation
• The teacher asks students to read the text in the student textbook
• The teacher explains that the Indonesian language learning material still uses the lecture method, and many students' learning outcomes are still below the KKM
3) Observation
• The teacher and students conclude the lesson material that has been implemented

4) Reflection
• The teacher and students end the lesson by saying hamdallah together.

B. Cycle I
1) Planning
Improvement plan for science subjects
• Material: human skeleton and its functions
• Improvement objectives: through picture media, students can describe several human skeletons and their functions that they know
• Indicators: identifying various types of human skeletons and their functions
• Improvement objectives: Actively involving students in every learning process. Facilitating students to make observations through image media

2) Implementation
Initial activities
• The teacher conditions students towards conducive learning
• Filling in the class list, preparing facilities and sources of assignments
• Holding apperception with questions and answers related to the material to be discussed
Core activities
• Students listen to the teacher's explanation regarding the definition and types of human skeletons and their functions
• Students are directed to observe the pictures of objects given by the teacher and classify which ones are included in the human skeleton and their functions
• Students fill in the observation sheet provided
• The teacher and students conduct questions and answers about the material on the human skeleton and its functions
• The teacher and students make conclusions about the learning outcomes

3) Observation
• The teacher gives a post-test to determine students' absorption
• Follow-up in the form of an assignment to bring 1 item that is included in the human skeleton and its function
4) Reflection

Based on the results of Supervisor 1's assessment of teacher activities using the APS PKP 1 and APS PKP 2 instruments, were then analyzed through a reflection process to draw conclusions. The results obtained in this reflection activity are used as a source for further action, namely in order to improve, perfect, or abandon bad habits in implementing learning, so that the expected goals can be achieved, namely increasing teacher activity in learning with the CTL method.

C. Cycle II
1) Planning
• Material: human skeleton and organs and their functions
• Improvement objectives: through picture media, students can describe the human skeleton and organs and their functions that they know
• Indicator: identify the human skeleton and organs
• Improvement objectives: actively involve students in every learning. Facilitate students through picture media or teaching aids. 2) Implementation
• The teacher conditions students towards conducive learning
• Fills in the class list, prepares facilities and sources of assignments
• Conducts apperception with questions and answers related to the material to be discussed

Core activities
• Students listen to the teacher's explanation regarding the definition and types of human skeletons and their functions
• Students are directed to observe the pictures of objects given by the teacher and classify which ones are included in the human skeleton and its functions
• Students fill in the observation sheet provided
    The teacher and students conduct questions and answers about the material on the human skeleton and its functions.

3) Observation
• The teacher gives a post-test to determine students' absorption
• Follow-up is given in the form of an assignment to bring 1 item that is included in the human skeleton and its functions

4) Reflection

    Based on the results of Supervisor 1's assessment of teacher activities using the APS PKP 1 and APS PKP 2 instruments, were then analyzed through a reflection process to draw conclusions. The results obtained in this reflection activity are used as a source for further action, namely in order to improve, perfect, or abandon bad habits in the implementation of learning, so that they can achieve the expected goals, namely increasing teacher activity in learning with the CTL method.

Data Analysis Techniques and Research Success Indicators
1. Research Instruments
• Instruments and Rubrics for RPP Assessment in APKG_PKP 1
• Instruments and Rubrics for Learning Practice Assessment in APKG_PKP 2
• Instruments and Rubrics for Observing Student Learning Outcomes

Study Results and Discussion
    The research on improving science learning in grade IV of SDN Cikarang City 04 was conducted in two cycles. The results of the research during the two cycles showed an increase in learning activities implemented by teachers. The description of the application of the CTL method in each cycle is as follows:
1. Description and Pre-Cycle Results Data
    Pre-cycle activities were carried out on Friday, June 15, 2023. Pre-cycle activities were carried out by taking data on the initial conditions of students. Before the research was carried out, it was known that the results of learning science with the material of the human skeleton and organs in class IV SDN Cikarang City 04 had not used the Contextual Teaching and Learning (CTL) method and media that were in accordance with the learning material.
    In addition, teachers also carry out conventional learning using only the lecture method, therefore in this case students are not very enthusiastic and feel bored, quickly sleepy, or bored in participating in learning, especially in the material of the human skeleton and organs in science lessons. Student scores can be seen in the following table:

1. Pre-Cycle Results Data

Table 1. Learning Outcomes of Class IV

No	Student Name	Pre Cycle Values	Category	
			Completed	Not Finished
1	AAP	68	√	
2	ADF	62		√
3	ARL	65	√	
4	AMA	48		√
5	AN	35		√
6	ARH	66	√	
7	AH	54		√
8	ARP	60		√
9	AQA	65	√	
10	AHJ	40		√
11	AS	66	√	
12	FAH	52		√
13	FAA	62		√
14	KHA	65	√	
15	KA	52		√
16	KAL	66	√	
17	MHM	68	√	
18	MKM	60		√
19	MLA	62		√
20	MMD	65	√	
Total Value			1.181	
Lowest Value			35	
The highest score			68	
Average value			59,05	

Based on quantitative data in Table 1, the results of the pre-cycle science lesson evaluation can be described as follows:

- Students who can achieve the Minimum Completion Criteria (KKM) score are 9 students out of 20 students.
- Students who have not achieved the Minimum Completion Criteria (KKM) score are 11 students out of 20 students.
- The average score obtained at the pre-cycle stage is 59.05. At this pre-cycle stage, the average score is still below the KKM, so learning cannot be said to be successful and still needs improvement, namely cycle I.

Table 2. Number of Learning Outcomes of Pre-Cycle Assessment

No	Value	Student	Amount	Percentage	Information
1	35	1 orang	35	4	
2	40	1 orang	40	4	
3	48	1orang	48	4	
5	52	2 orang	104	8	
6	54	1 orang	108	8	
7	60	2 orang	120	12	
8	62	3 orang	186	12	
9.	65	4 orang	260	20	
10.	66	3 orang	198	12	
11.	68	2 orang	136	12	
Total Value			1.181		
Lowest Value			35		
The highest score			68		
Average value			59,05		

1. Pre-Cycle Tables and Diagrams

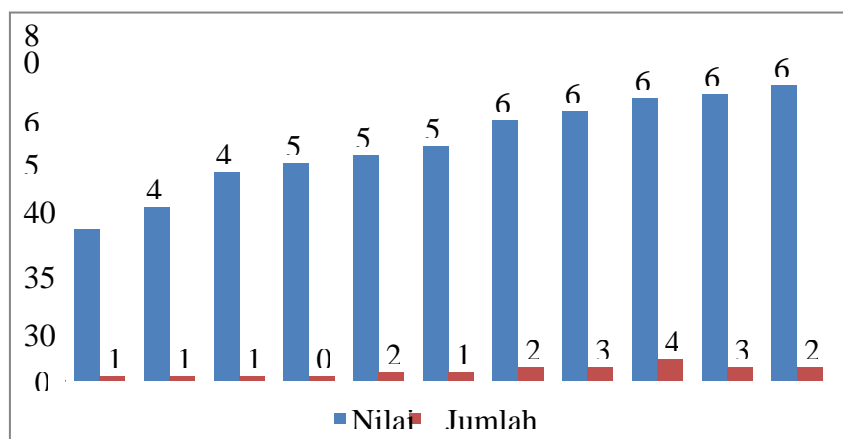**Figure 2.** Graph of the Number of Learning Outcomes for the Class I Pre-Cycle Assessment

Figure 2. Pre-Cycle Student Activity Observation Data

No	Observed Aspects	Appearance	
		There is an Appearance	There is not an Appearance.
1	Student readiness to learn	√	
2	Students are able to answer teacher questions and listen when the learning objectives are explained.		√
3	Actively ask questions during the material explanation process Learning.		√
4	Students are actively involved during the learning process.		√
5	Students follow the learning process calmly.	√	
6	Students are motivated to follow the learning process.		√
7	Students are interested in the material on the human skeleton and organs in science subjects.		√
8	Students are happy with science lessons.		√
9	Active group discussion		√
10	Students are able to answer correctly the questions asked by the teacher.		√
	Amount	2	8
	Average	20%	80%

1. Pre-Cycle Conclusion

Based on Table 1 on the observation of pre-cycle student activities, it can be described that student activities show 2 activities that are already visible with a percentage of 20%, namely student readiness in participating in learning and students participating in learning calmly, while 8 activities have not been seen with a percentage of 80%. In this case, it can be concluded that student activities are still far from what is expected in the process of learning Indonesian about the human skeleton and organs.

Description and Data Results of Cycle I

The research on improving science lessons in grade IV of SDN Cikarang City 04 was carried out in 2 cycles. The results of the research during the two cycles showed an increase in the assessment of learning activities implemented by teachers. The description of the application of the contextual teaching and learning (CTL) method is as follows:

a. Data Results of Cycle I

Table 3. List of Test Result Values in Cycle I

No	Student Name	Score	Value	Completed/Not Completed
1	AAP	13	75	Completed
2	ADF	10	68	Completed
3	ARL	11	69	Completed
4	AMA	8	50	Not Completed
5	AN	6	38	Not Completed
6	ARH	11	69	Completed
7	AH	9	56	Not Completed
8	ARP	11	69	Completed
9	AQA	10	68	Completed
10	AHJ	8	50	Not Completed
11	AS	11	69	Completed
12	FAH	9	56	Not Completed
13	FAA	13	68	Completed
14	KHA	11	69	Completed
15	KA	10	56	Not Completed
16	KAL	11	70	Completed
17	MHM	12	75	Completed
18	MKM	9	67	Completed
19	MLA	9	65	Completed
20	MMD	11	69	Completed

Based on quantitative data in Table 3 on the results of the Indonesian language evaluation in Cycle, I can be described as follows:

a. The number of students who can achieve the minimum completion criteria (KKM) is 16 students out of 20 students

b. The number of students who cannot achieve the minimum completion criteria (KKM) is 9 students out of 20 students.

c. The average value obtained in the Cycle I stage is 63.6.

Table 4. Observation Data of Student Activities in Cycle I

No	Aspects observed	The appearance	
		The appearance is there.	The appearance is there.
1	Student readiness to learn.	√	
2	Students are able to answer the teacher's questions and listen when the learning objectives are explained.		√
3	Actively ask questions during the explanation process of learning materials.		√
4	Students are actively involved during the learning process.	√	
5	Students follow the learning process calmly.	√	
6	Students are motivated to follow the learning process.	√	

		√	
7	Students are interested in the beginning reading material.	√	
8	Students are happy to receive lessons on the human skeleton and organs.		√
9	Active group discussion		√
10	Students are able to answer correctly the questions asked by the teacher.		√
	Amount	5	5
	Percentage	50%	50%

Based on Table 4 about the observation of student activities in cycle I, it can be described that student activities show 5 activities that have been seen with a percentage of 50%, namely student readiness in participating in learning, active in the activity process, motivated in lessons, interested in measuring angles and students follow learning calmly. While 5 activities have not been seen with a percentage of 50%. In this case, it can be concluded that student activities have increased by 20% from activities in the pre-cycle.

Table 5. Observation Data of Teacher Activities in Cycle I

No	Description	Score				
		1	2	3	4	5
1	Managing learning spaces and facilities			√		
2	Implementing learning improvement activities				√	
3	Managing class interactions			√		
4	Be open and flexible and help develop students' positive attitudes towards learning.			√		
5	Demonstrate specific skills in improving Subject learning		√			
6	Carry out assessments of learning processes and outcomes.				√	
7	General impression of the learning implementation			√		
Average (sum of scores divided by 7)		3, 1				

From Table 5 on teacher activity data in cycle I, there are still aspects that get a score of 2, namely demonstrating special abilities in improving subject learning. For the aspect of implementing learning improvement activities and implementing assessments of the learning process and outcomes, it gets a score of 4. While other aspects are 3. The average score obtained is 3.1.

c. Conclusion of Cycle I

Based on the data above, it can be concluded that the learning objectives have not been fully achieved because the percentage of completion is only 44%, which is still not satisfactory. Therefore, it is necessary to improve learning in cycle I

2. Description and Data Results of Cycle II

1. Planning

In this cycle II action plan, it is the result of reflection from cycle I with improvements in the implementation plan, the method and media remain the same as in cycle I. The method applied is the CTL method so that it explains the material using steps so that it can be absorbed by students. Furthermore, in the learning process, the researcher designs so that students are able to understand a reading given so that they can read and recognize a letter. So what the researcher needs to prepare for the learning process in cycle II is:

- Prepare lesson plans and media that will be used in the learning process and developed based on the syllabus used by the fourth-grade teacher at SDN Cikarang City 04.
- Prepare learning materials for the human skeleton and organs, create learning media in the form of pictures of the human skeleton and organs
- Prepare student observation sheets to determine the activeness of students in the learning process
  - Prepare evaluation tools. To make it easier to deliver learning, the researcher uses a grade IV student textbook at SDN Cikarang City 04
- and assessment instruments in the form of observation guidelines for the responses of each student during the learning process and human skeleton and organ ability tests.

Table 6. Ability to Prepare Lesson Plans for Learning Improvement Cycle II

No	Description	Score				
		1	2	3	4	5
1	Determining learning improvement materials and formulating learning improvement objectives/indicators			√		
2	Developing and organizing materials, determining themes, media (learning aids), and learning resources				√	
3	Planning improvement scenarios Learning				√	
4	Designing classroom management learning improvement				√	
5	Planning procedures, types, and preparing learning improvement assessment tools				√	
6	Tampilan dokumen rencana perbaikan pembelajaran				√	
Rerata (jumlah skor dibagi 6)		3,8				

Based on Table 6 on the ability to compile lesson plans for improving learning in cycle II, it can be described that the aspects of Determining learning improvement materials and formulating learning improvement objectives/indicators got a score of 3. For other aspects, they got a score of 4 with an overall average of 3.8. In cycle II, there was an increase from cycle II.

b. Conclusion of cycle II

This reflection was carried out after the learning process took place, the observer and researcher discussed the progress related to learning in cycle II. In cycle II, the improvement in the ability of the human skeleton and organs was in accordance with the success indicators, namely 80% of the results of the researcher's observations in class IV SDN Cikarang City 04 obtained satisfactory results. Based on the results obtained from the actions of cycle I to cycle II, the researcher stopped this class action in cycle II. Because it can be explained that the CTL method can improve the ability of the human skeleton and organs in students very well, namely:

In the initial data, the ability of the human skeleton and organs of students was 44% or 11 students out of 25 students. 1. Cycle I increased to 44% of 25 students. And 2. Cycle II increased to 80% of 25 students.

In the implementation of cycle II, the researcher has achieved the expected target in the researcher's success indicator, which is an increase from 44% in cycle I and has reached 80% so that the researcher ends this cycle II.

4. Discussion of Research Results

The results of the implementation of learning improvements for grade IV students of SDN Cikarang City 04 regarding the human skeleton and organs can be seen in the table below:

Table 7. Learning Outcome Data on the Human Skeleton and Organs Each Cycle

No	Student Name	Pre Cycle Values	Cycle I Values	Cycle II Values
1	AAP	68	75	78
2	ADF	62	68	72
3	ARL	65	69	70
4	AMA	48	50	68
5	AN	35	38	40
6	ARH	66	69	72
7	AH	54	56	68
8	ARP	60	69	70
9	AQA	65	68	74
10	AHJ	40	50	56
11	AS	66	69	74
12	FAH	52	56	75
13	FAA	62	68	68
14	KHA	65	69	74
15	KA	52	56	72
16	KAL	66	70	75
17	MHM	68	75	78
18	MKM	60	67	70
19	MLA	62	65	67
20	MMD	65	69	70

Based on Table 7 regarding student learning outcome data for each cycle, it can be described as follows:

- The highest score in the pre-cycle is 68 and the lowest score is 35 with an average score of 59.12
- The highest score in cycle I is 75 and the lowest score is 38 with an average score of 63.6
- The highest score in cycle II is 78 and the lowest score is 40 with an average score of 68.32.

I. Discussion of Pre-Cycle Learning Improvement Research Results

The pre-cycle activities carried out on Thursday, June 1, 2023, showed that students were not active in the learning process and there were still many students whose scores were below the KKM. This is because in the pre-cycle, appropriate learning management has not been optimally implemented and there is no use of media or methods in learning with the lecture method alone, so that students easily get sleepy and feel bored, are not enthusiastic about participating in learning and teachers do not condition students physically and psychologically. The learning outcomes of students in pre-cycle learning that reach the KKM can be made into the following table:

Table 8. Percentage of Learning Outcome Completion in Pre-Cycle

No	Student Grades	Predicate	Number of Students	Percentage
1	Nilai > 65	Completed	11	44%
2	Nilai ≤ 65	Not Completed	14	56%
Amount			25	100%

Based on the data above, it can be concluded that the learning objectives have not been fully achieved because the percentage of completion is only 44%, still not satisfactory. Therefore, it is necessary to improve learning in cycle I.

I. Discussion of Research Results on Learning Improvement Cycle I

The implementation of cycle I activities was carried out on Wednesday, June 7, 2023. Based on the results of observations that researchers made on classroom actions in cycle I, it was explained that in the learning process using the CTL method, namely, in the implementation of cycle 1, the learning process was carried out using the CTL method and guided by illustrated letter card media, students were very happy to follow the learning of the human skeleton and organs. However, there are still students who do not understand, students still find it difficult to mention human skeletons. The achievement of student

learning outcomes in cycle I learning that reached the KKM can be made into a table.

Table 9. Percentage of Learning Outcome Completion in Cycle I

No	Student Grades	Predicate	Number of Students	Percentage
1	Nilai > 65	Completed	16	64%
2	Nilai ≤ 65	Not Completed	9	36%
Amount			25	100%

Based on the data above, it can be concluded that the evaluation results or results of the reading ability test in Cycle I, students who achieved the KKM score were 16 students (64%) and students who had not achieved the KKM were 9 students (36%). From the results of learning in cycle I, the researcher tried to improve and optimize the application of the Cotextual Teaching and Learning (CTL) method in cycle II learning.

I. Discussion of Research Results on Learning Improvement Cycle II

The implementation of Cycle II activities was carried out on Wednesday, June 14, 2023. Learning improvement in Cycle II is a follow-up action from Cycle I. Based on the results of observations of actions in cycle II, there have been many improvements in the ability of the human skeleton and organs, students appear more active and understand the human skeleton and organs more than before. From the results of the evaluation or results of the test using the CTL learning method in cycle II, 84% or 16 students completed the course and 16% or 4 students had not completed the course. The achievement of student learning outcomes in cycle II that reached the KKM can be seen in the table below.

Table 10. Percentage of Learning Outcome Completion in Cycle II

No	Student Grades	Predicate	Number of Students	Percentage
1	Nilai > 65	Completed	16	84%
2	Nilai ≤ 65	Not Completed	4	16%
Amount			20	100%

Based on the data obtained in cycle II activities, there is a significant increase, and student learning completion has been achieved. The increase can be seen from the percentage of student completion in each cycle, namely, the percentage of completion before the improvement of learning in the pre-cycle only reached 44%, then there was an increase in completion after the improvement of learning in cycle I although the increase only reached 64%, then continued with learning improvements in cycle II so that there was a significant increase with a percentage of 84%.

In this cycle II, it can be concluded that the application of the Cotextual Teaching and Learning (CTL) method in Natural Science learning activities in class IV of SDN Cikarang City 04 about the human skeleton and organs has been carried out well and the success indicators that have been set have been achieved. Thus, the research has been completed and carried out as many as 2 cycles in improving learning.

CONCLUSIONS

From the results of the research that has been done, the following conclusions can be obtained; the ability of teachers to teach by applying the Contextual Teaching and Learning (CTL) method is always developing and is already in the very good category in the last cycle. This can be seen from the average values on the observation sheets of teacher activities APS 1 and APS 2, in cycle I, it was categorized as good and finally, in cycle II, it was categorized as very good. From the results of this analysis, the CTL method can be used as an alternative in efforts to improve the learning outcomes of class IV students of SDN Cikarang City 04.

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