Contextual Learning Model in Elementary Schools in Improving Learning Outcomes

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ABSTRACT

Purpose of the study: This research aims to improve students' cognitive learning outcomes by applying the Contextual Teaching and Learning learning model.

Methodology: The research method used is Classroom Action Research, which consists of three cycles. The sampling technique was purposive sampling, with the same being class III.B with a total of 31 students, consisting of 16 male and 15 female students. The research instruments used were observation sheets and student learning outcome assessment formats. The data analysis techniques used in this research are quantitative and qualitative data.

Main Findings: The results of this research indicate that the application of the Contextual Teaching and Learning learning model can improve cognitive learning outcomes for theme 1 subtheme 2 in class III.B students, with learning completion results in cycle I 58%, cycle II 74.1%, cycle III 87% and post-test 90.3%, with a percentage of success requirements of 85%.

Novelty/Originality of this study: The Contextual Teaching and Learning learning model can improve learning outcomes for theme 1 subtheme 2 class III.B at Elementary School 25 Palembang.

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1. INTRODUCTION

Education is something that is very important to pursue in human life. Because education can change the life lived through education. Education is the process of educating, developing, controlling, supervising, influencing, and transmitting knowledge carried out by educators to students to free up ignorance, increase knowledge, and form a better personality that is useful for everyday life [1]. The aim of education is to develop the abilities and forms of character and civilization of a dignified nation in order to make the nation's life intelligent, have noble character, be healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens [2]. Elementary school education is basic education as a foundation for further education [3].

Education in Indonesia continues to experience changes. This can be seen, one of the ways, from the development of the implemented curriculum. Curriculum itself means a concept and plan that includes objectives, content, methods and learning assessments used in education [4]. The 2013 curriculum is the curriculum that is still used today in education in Indonesia. The current curriculum demands a change in the learning process that is not only teacher-centered but also involves students taking an active role in learning [5]. In the 2013 curriculum, teachers are required to prepare integrative thematic-based learning. Theme-based is
themes in the manual, there is a link between the concepts of different subjects, so that students are given the ease to understand concepts based on one subject [6]. Thematic learning makes the learning atmosphere fun, not boring and increases student motivation and makes students more active [7]. Thematic learning is also designed to create meaningful learning conditions for students in class [8].

In learning activities, learning success is measured by student learning outcomes. Evidence of learning achievement can be seen from learning outcomes [9]. Learning outcomes are the achievement of maximum results after studying certain material, as well as the abilities possessed by students after receiving their learning experience and these results can be used by teachers to be used as a measure or criterion in achieving an educational goal and this can be accompanied by changes, better behavior[10], [11]. So based on this understanding, teachers have an important role in student learning outcomes. Because teachers have a significant influence on teaching and learning activities in the classroom.

Apart from the role of the teacher, students also play a role in the success of learning activities. As is known, in learning activities teachers and students are the implementers of learning activities. Where the two interact with each other and communicate reciprocally to achieve learning goals. One of the roles played by teachers in achieving learning objectives is carrying out learning activities that can facilitate and motivate students. Meanwhile, one of the roles of students in achieving learning goals is to concentrate. Concentration in learning is an experience of discipline for students [12]. So students will not get anything from the lessons in learning activities if they do not concentrate [13]. The learning outcomes measured in this case are learning outcomes in the cognitive domain.

However, based on the results of observations made by researchers in class III.B, there were still many students who did not concentrate during learning activities. This can be seen by many students chatting during learning activities and not paying attention to the teacher's explanations. This is what makes the cognitive learning outcomes of class III.B students at Elementary School 25 Palembang still low. This low learning outcome is seen from the value of learning outcomes that have not reached the specified minimum completeness criteria (KKM). Therefore, it is necessary to have a learning process that makes students actively involved. So students no longer have time to chat with their friends and concentrate during learning, namely through the Contextual Teaching and Learning (CTL) learning model. Because a good learning process will greatly influence learning outcomes [14].

The Contextual Teaching and Learning (CTL) learning model is a learning model that invites students into a full involvement process to be able to find the material being studied and relate it to real life situations. So as to encourage students to be able to apply it in everyday life [15]. Another definition of the Contextual Teaching and Learning (CTL) learning model is a learning philosophy that allows students to connect knowledge with its implementation in everyday life by helping teachers connect information with students' situations in the real world [16].

There are seven main learning components that underlie the application of the Contextual Teaching and Learning (CTL) learning model, namely: 1) Constructivism; 2) Find (Inquiry); 3) Ask (Question); 4) Learning Community; 5) Modeling (Modelling); 6) Reflection; 7) Actual assessment (Authentic Assessment) [17], [18]. The advantages of the Contextual Teaching and Learning (CTL) learning model are (1) Learning becomes meaningful and real. (2) Learning is more productive and able to foster concept strengthening for students because the CTL learning method adheres to constructivism, where a student is guided to discover his own knowledge [19].

The application of the Contextual Teaching and Learning (CTL) model in the learning process is expected to improve students' cognitive learning outcomes because it involves students directly in connecting learning material with the environment and relating the material studied to everyday life in fact [20], [21]. So, this will also make students concentrate more in following the learning process and directly acquire the concepts being studied. This is also reinforced by relevant previous research entitled "Application of the Contextual Teaching and Learning (CTL) model assisted by concrete media to improve critical thinking skills and thematic learning outcomes in elementary schools." This research shows that the application of this learning model can improve students' critical thinking skills and learning outcomes, this is proven by the results of the first cycle of 46% of students achieving the average score and increasing in the second cycle, namely reaching 83% of students who achieved the average [22]. Apart from that, there is other relevant previous research, namely "Improving Science Learning Outcomes on Solar System Material with the Contextual Teaching and Learning (CTL) Learning Method", the results of this research show an increase in student learning outcomes in the cognitive aspect of solar system competency, namely on average The average score during the pretest was 54.5%, increasing to 60% in cycle 1 and increasing to 76% in cycle II with a learning completion standard of above 70%. So, it can be concluded that the use of the CTL learning method can improve the learning outcomes of science students regarding the solar system [23].

Referring to the background explanation above, as an effort to improve students' cognitive learning outcomes, researchers will conduct classroom action research with the title "Improving Learning Outcomes for
2. RESEARCH METHOD

This research was carried out in class III.B at State Elementary School 25 Palembang odd semester of the 2023/2024 academic year, on theme 1 "Growth and Development of Living Creatures" sub-theme 2 "Human Growth and Development". Where from the pre-cycle results or initial data that have been implemented, the results show that the learning outcomes of students who achieve the KKM (Minimum Completeness Criteria) score are still low. So, with the discovery of this problem, researchers were interested in applying the Contextual Teaching and Learning (CTL) learning model as a solution. Where the learning model links learning activities with real conditions that exist around students, so that learning is more meaningful and students can be actively involved.

The research method used in this research is Classroom Action Research. Classroom action research is research conducted when a group of people (students) identify a problem [24]. This classroom action research was carried out collaboratively between researchers and tutors. This classroom action research was carried out in three cycles, each cycle had one meeting. The model used in this classroom action research is the Kemmis and MC Taggart model, which consists of four components, namely 1) Planning; 2) Action; 3) Observation; 4) Reflection. These four components constitute one cycle.

In this study the population was all class III at State Elementary School 25 Palembang. Meanwhile, purposive sampling is a data sampling technique with certain changes [25]. The sample in the research was class III.B with a total of 31 students, consisting of 16 male students and 15 female students. The research instruments used were observation sheets and student learning outcome assessment formats.

Data collection techniques are used to collect data according to research procedures, so that the required data is obtained. Data collection techniques are the most strategic step in research, because the main goal is to collect data [26]. The data collection techniques used in this research are observation, test and documentation techniques. Observation is defined as the activity of observing and recording the symptoms that occur in the object being studied. Meanwhile, tests are evaluation activities to measure students' learning success while participating in learning activities. The test used is an essay test. And documentation is data collection that is not aimed directly at the research subject, but rather through documents [27]. The data is in the form of photos of learning activities.

Data analysis is an activity carried out to change research data into new information that can be used as a conclusion [28]. The data analysis techniques used in this research are quantitative and qualitative data. Quantitative data was analyzed using comparative descriptive, namely comparing the results of descriptive calculations [29]. Which in this case is the percentage result from one cycle to the next cycle. Meanwhile, qualitative data is analyzed by identifying student performance during the process of implementing actions. The indicator of the success of this classroom action research is considered successful if it has met the success of the action, namely increasing learning outcomes through the application of the Contextual Teaching and Learning (CTL) learning model in 1 "Growth and Development of Living Creatures" sub-theme 2 "Human Growth and Development" class III.B SDN 25 Palembang with a percentage of 85% of 31 students with a predetermined thematic KKM score, namely 73. The formula used to calculate completeness is as follows [30].

\[ P = \frac{\sum \text{Completed students}}{\sum \text{Students}} \times 100 \]

Information:

\[ P \]: Percentage of learning completeness
\[ \sum \text{Completed students} \]: Number of students who completed
\[ \sum \text{Students} \]: The number students

3. RESULTS AND DISCUSSION

This Classroom Action Research (PTK) includes III cycles, namely cycles I, II, and III. Each cycle consists of planning, action, observation and reflection stages. Before conducting classroom action research, researchers first carry out pre-cycle activities or initial data. This pre-cycle aims to determine student learning outcomes before the model is applied. The use of the Contextual Teaching and Learning (CTL) learning model is used as a reinforcement to determine student learning outcomes before research actions are carried out. The pre-cycle results are as follows.
From the data in Table 1 above, it can be seen that student learning outcomes are still low, namely the number of students who completed it was 9 students or 29%, while the number of students who did not complete it was 22 students or 70.9%. So, the researcher intends to improve and increase the learning outcomes of class III.B by using the Contextual Teaching and Learning (CTL) learning model.

In the first cycle stage, it is carried out in four stages, namely the planning stage. At the planning stage, what the researcher did was (1) coordinate with the class teacher regarding the research plan being carried out, (2) prepare a learning implementation plan (RPP) using the Contextual Teaching and Learning (CTL) learning model, (3) prepare test results student learning. At the learning implementation stage carried out in classroom action research in cycle I are (1) opening activities, core and closing activities. Then in the observation stage, the researcher makes observations during the learning activities. At the end of cycle I, a test was carried out to determine the students’ learning outcomes, here are the results

<table>
<thead>
<tr>
<th>Table 2. Cycle 1 Cognitive Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle I Results</td>
</tr>
<tr>
<td>Complete</td>
</tr>
<tr>
<td>Incomplete</td>
</tr>
<tr>
<td>Amount</td>
</tr>
</tbody>
</table>

Based on Table 2, the results obtained in cycle I were 18 students who completed it or 58% and the number of students who did not complete it was 13 students or 41.9%. The learning outcomes in cycle I have increased from the pre-cycle learning outcomes or initial data, but have not yet reached the research success requirement, namely 85%. So, the research implementation is still continuing in cycle II.

This reflection stage is carried out by researchers based on the results of implementing learning using the Contextual Teaching and Learning (CTL) learning model. The results of this first cycle of reflection are that students’ cognitive learning outcomes have improved from pre-cycle. But there are some things that still need to be improved, namely learning planning and class management. Where the Contextual Teaching and Learning (CTL) learning model in learning planning is still not appropriate, resulting in implementation not being optimal, apart from that, class management skills are still lacking so that students’ activeness and concentration are not yet optimal.

In implementing cycle II, researchers prepared more thoroughly so that the mistakes in cycle I did not happen again. Learning planning is given more attention and preparation, and class management skills are further improved by giving rewards in the form of stars. Where these factors can support the smooth implementation of the Contextual Teaching and Learning (CTL) learning model and student learning outcomes.

The stages in cycle II are still the same as cycle I, namely planning, action, observation and reflection. At the planning stage of cycle II, this is improving planning in cycle I which is related to improving learning outcomes using the Contextual Teaching and Learning (CTL) learning model and student learning outcomes.

At the planning stage of cycle II, this is improving planning in cycle I which is related to improving learning outcomes using the Contextual Teaching and Learning (CTL) learning model. The implementation stage consists of opening, core and closing activities.

Based on the observation stage of teacher and student activities, it can be concluded that by improving classroom management carried out by teachers, the classroom atmosphere is more conducive and students have begun to be active and concentrate in participating in learning activities. This also has an impact on students’ cognitive learning outcomes which are increasingly improving compared to before. The following are the learning outcomes from cycle II.

<table>
<thead>
<tr>
<th>Table 3. Cycle II Cognitive Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle II Results</td>
</tr>
<tr>
<td>Complete</td>
</tr>
<tr>
<td>Incomplete</td>
</tr>
<tr>
<td>Amount</td>
</tr>
</tbody>
</table>

In Table 3 above, you can see the results obtained in cycle II, namely the number of students who completed was 23 students or as much as 74.1% and the number of students who did not complete was 8 students or as much as 25.8%. The learning outcomes in cycle II also increased from the learning outcomes in cycle I, but had not yet reached the research success requirement, namely 85% of students who completed. So the research implementation will continue in cycle III.
The results of the reflection in cycle II are that learning activities have proceeded according to the stages of the Contextual Teaching and Learning (CTL) learning model, students have appeared active and concentrated during the learning process. However, there were still some students who were still chatting while the lesson was taking place. This will be material for improvement for the next cycle.

In implementing cycle III, the researcher reflected again on the shortcomings in cycle II, so that they could be corrected. The ability to manage classes in cycle III will be further improved. So that learning is implemented by implementing the Contextual Teaching and Learning (CTL) learning model and further increasing students' activeness and concentration in the learning process. Class management carried out in cycle III is again implementing star rewards, but these stars will decrease if students make noise and increase if students can answer questions correctly during the lesson. This makes you more active and concentrated during learning.

The stages in cycle III are still the same as cycle II, namely planning, action, observation and reflection. At the planning stage of cycle III, this is to correct deficiencies in cycle II which relate to classroom management which influences the application of the Contextual Teaching and Learning (CTL) learning model. The implementation stage consists of opening, core and closing activities.

Based on the observation stage of teacher and student activities, it can be concluded that by improving classroom management carried out by teachers, the classroom atmosphere is more conducive and students are active during learning. This has an impact on students' cognitive learning outcomes which are increasing compared to before and reaching the required percentage of learning success, namely 85%. The following are the learning outcomes from cycle III.

### Table 4. Cycle III Cognitive Learning Outcomes

<table>
<thead>
<tr>
<th>Cycle III Results</th>
<th>Mark</th>
<th>Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
<td>27</td>
<td>87%</td>
</tr>
<tr>
<td>Incomplete</td>
<td>4</td>
<td>12.9%</td>
</tr>
<tr>
<td>Amount</td>
<td>31</td>
<td>100%</td>
</tr>
</tbody>
</table>

In cycle III stage, the results obtained were 27 students who completed it or 87% and the number of students who did not complete it was 4 students or 12.9%. The learning outcomes in cycle III have increased from the learning outcomes in cycle II and the percentage of students who have completed it has also reached the research success requirement, namely 85%. So the implementation of the research was no longer continued, because it had already achieved success.

Based on the results of the reflection, the steps prepared in planning the implementation of learning and classroom management have been maximized. Problems in cycles I and II have been resolved well. This can be seen from the results of tests for cycles I, II and III which continue to increase. Learning outcomes are basically the competencies that a person has after participating in learning.

Then the next step is to carry out a post test, with the aim of seeing the overall learning results of the material that has been studied. Following are the post test results.

### Table 5. Post Test

<table>
<thead>
<tr>
<th>Cycle II Results</th>
<th>Mark</th>
<th>Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete</td>
<td>28</td>
<td>90.3%</td>
</tr>
<tr>
<td>Incomplete</td>
<td>3</td>
<td>9.6%</td>
</tr>
<tr>
<td>Amount</td>
<td>31</td>
<td>100%</td>
</tr>
</tbody>
</table>

From the table above, it can be seen that the post test results obtained are the number of students who completed the post test, namely 28 students or 90.3% and the number of students who did not complete, namely 3 students or 9.6%.

Based on the data obtained from each cycle, cognitive learning outcomes continue to increase. This can also be seen in the table which is the result of a comparison of the cognitive learning outcomes obtained each cycle.

### Table 6. Accumulation of Students Cognitive Learning Results

<table>
<thead>
<tr>
<th>Stages</th>
<th>Complete</th>
<th>Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>Pre-Cycle</td>
<td>9</td>
<td>29%</td>
</tr>
<tr>
<td>Cycle I</td>
<td>18</td>
<td>58%</td>
</tr>
<tr>
<td>Cycle II</td>
<td>23</td>
<td>74.1%</td>
</tr>
<tr>
<td>Cycle III</td>
<td>27</td>
<td>87%</td>
</tr>
<tr>
<td>Post Test</td>
<td>28</td>
<td>90.3%</td>
</tr>
</tbody>
</table>

The data above can be presented in the following diagram.

![Percentage of Cognitive Learning Completeness](image)

Figure 1. Percentage of Cognitive Learning Completeness

From table 4 and the diagram above, data shows that the cognitive learning outcomes of each cycle increased, namely in the pre-cycle 29%, cycle I 58%, cycle II 74%, cycle III 87%, and post test 90.3%. Based on these results, it can be concluded that the application of the Contextual Teaching and Learning (CTL) learning model can improve the learning outcomes of class III.B students in Theme 1 Subtheme 2 for class III.B students at SDN 25 Palembang. Because the indicators of success in this research have been achieved, in this case achieving a continuous increase in cognitive learning outcomes from cycle I to cycle III, this research was stopped until cycle III.

Students will be more active in the Contextual Teaching and Learning (CTL) learning model because the groups created are small, and each student observes the behavior of his own friends and looks for alternative problem solutions based on his observations [31]. A contextual approach is carried out by including events or objects from students' daily lives [32]. This is because students are already familiar with these problems in everyday life [33]. The Contextual Teaching and Learning (CTL) learning model can be combined with technological media, either in the form of videos or images to help explain lesson material.

In this research, the Contextual Teaching and Learning (CTL) learning model is more specific to low classes, whereas in previous research the application of the Contextual Teaching and Learning (CTL) learning model was more widely used in high classes [34] [35] [36]. This Contextual Teaching and Learning (CTL) learning model can be used in low and high grades [37]. A comparison of the results from previous research will be presented in Table 7 as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Researcher’s Name</th>
<th>Title</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leny Maghfiroh, (2014)</td>
<td>Application of the CTL Learning model to Improve Students Learning Outcomes in Science Subjects for Grade V Elementary Schools</td>
<td>This research uses the CTL learning model with the aim of improving learning outcomes for grade V elementary school science subjects. The learning outcomes obtained were in cycle I 65.8% and cycle II 94.74%. So it can be concluded that the application of the CTL model can improve learning outcomes in science subjects in grade V elementary school.</td>
</tr>
<tr>
<td>2</td>
<td>Frikayatus Soleha, Akhwani, Nafiah, Dewi Widiana Rahayu, (2021)</td>
<td>Contextual Teaching and Learning Model to Improve Civics Learning Outcomes in Elementary Schools</td>
<td>This research aims to analyze the influence of the Contextual Teaching and Learning model on elementary school PKn learning outcomes. The results of the research show that the average student learning outcomes for elementary school civics before the Contextual Teaching and Learning model was implemented was 64.88 and after it was implemented it experienced an increase of 81.77. It can be concluded that the Contextual Teaching and Learning model has an influence on elementary school PKn learning outcomes.</td>
</tr>
<tr>
<td>No</td>
<td>Researcher’s Name</td>
<td>Title</td>
<td>Results</td>
</tr>
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<td>----</td>
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<td>---------</td>
</tr>
<tr>
<td>3</td>
<td>Afni &amp; Farida S. (2021)</td>
<td>Increasing student learning outcomes in integrated thematic learning using the Contextual Teaching and Learning approach in class V elementary school.</td>
<td>This research aims to describe the improvement in student learning outcomes in integrated thematic learning using the Contextual Teaching and Learning approach in class V of Ulakan Tapasik State Elementary School 12. The learning results obtained were in cycle I at 69.80 and cycle II increased at 82.49.</td>
</tr>
</tbody>
</table>

Basicall, every research has different theoretical and practical implications. This research is theoretical, namely the process of selecting and determining a learning model as an appropriate alternative as an influence on the achievement of cognitive learning outcomes. Concentration and activeness of students in learning activities is very important because it influences learning outcomes, so in this case teachers are expected to be able to foster concentration and activeness of students in learning by sharing various methods and ultimately improve students’ cognitive learning outcomes. Meanwhile, the practical implication is that the results of this research can be an alternative or input for teachers in creating a learning process that is meaningful and firmly embodied in students’ memories, namely by linking the material studied with students’ real lives. So it can improve students’ cognitive learning outcomes.

4. CONCLUSION

Based on the results and discussion of the research that has been carried out, it can be concluded that the application of the Contextual Teaching and Learning (CTL) learning model in theme 1 sub-theme 2 has increased learning outcomes in class III.B of State Elementary School 25 Palembang in the 2023/2024 academic year. This is demonstrated by the actions from cycle I to cycle III, with the completeness value obtained in cycle I being 58%. Then in cycle II the completeness value obtained was 74.1%. And in cycle III the completeness value obtained was 87%. The results of the completeness score are proof of the success of implementing the Contextual Teaching and Learning (CTL) learning model in improving class III.B learning outcomes at State Elementary School 25 Palembang.

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REFERENCES


