Implementation of the Contextual Teaching and Learning (CTL) Learning Model Assisted by Audio Visual Media in Science Learning for Grade IV Students

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ARTICLE INFO

ABSTRACT

Learning is a process of conveying thoughts that occurs between educators and students. This study aims to determine the completeness of the science learning outcomes of fourth-grade students of SD Negeri 1 Tugu Sempurna after the application of the Contextual Teaching and Learning learning model assisted by Audio Visual media. This research method uses a quantitative approach with experiments. The research design used in this study is a pre-experimental design with one group pre-test and post-test categories. The subjects of this study were 25 fourth-grade students of SD Negeri 1 Tugu Sempurna consisting of 9 boys and 16 girls. Data collection techniques were carried out by observation, interviews, tests to students and documentation. The results of the study showed that there was completeness of student learning outcomes after the application of the Contextual Teaching and Learning learning model assisted by Audio Visual media. Based on the data analysis that has been done, the average pre-test test score is 51.60 and the average post-test test score is 78.76 after the application of the Contextual Teaching and Learning learning model assisted by Audio Visual media. Based on the z-test analysis, the z-count value ≥ z-table, which is 4.829 ≥ 1.65, is obtained. This means that Ho is rejected and Ha is accepted, so it can be concluded that the learning outcomes of fourth-grade students of SD Negeri 1 Tugu Sempurna are complete after the implementation of the Contextual Teaching and Learning learning model assisted by Audio Visual Media.

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1. INTRODUCTION

Education plays a vital role in life. It is needed in every aspect of life, although it is implemented in different ways depending on the field of study. The process of education involves classrooms and

institutions such as schools for sustainable human development. Within classrooms, there is interaction between teachers and students, fostering knowledge, creativity, and behavioral change through learning.

Learning is the process of conveying ideas between educators and students. Learning leads to significant change in students. It emphasizes improving student quality to become better than before. Learning serves as a guideline for classroom teaching and learning activities. These guidelines, of course, relate to the curriculum and learning outcomes. One of the learning outcomes to be achieved is in science and social studies.

Science learning is included in the independent curriculum structure. Science learning combines science and social studies materials into an integrated topic. Through the implementation of science learning, students are expected to develop curiosity, be able to play an active role, understand themselves and their environment, and understand the learning concepts contained in science learning. Suhelayanti, et al., (2023) stated that knowledge, values, attitudes, and skills in understanding and analyzing social problems that arise in everyday life can then foster a sense of love and pride in Indonesian society. When studying their surroundings, elementary school students will see and experience natural and social events. Science learning can develop students' curiosity, thus leading to the study of phenomena found in the surrounding environment.

Based on the results of observations on January 11, 2025 revealed that students have not been actively involved in the learning process. This is because learning is still centered on the teacher, learning resources are inadequate and the use of learning media is not optimal. In line with this statement, the learning resources used are still fixated on books published by the government (Appendix, page 130). In addition, the use of learning media is not optimal because it still uses printed paper media and has not been implemented in every learning material. Meanwhile, an interview with Mrs. Suwarni, S.Pd. explained that students have not been actively involved in the learning process due to the lack of student motivation to learn the material being taught. It is also known that student learning outcomes have not reached classical completeness, namely 72% of the total number of students, namely 18 students out of 25 students have not reached KKTP 68 with an average classical score of 62. This shows that learning outcomes in social studies learning do not match learning outcomes.

Based on the existing problems, it is known that low social studies learning outcomes are due to several factors. One factor is the lack of student active involvement in the learning process. The primary factor is the incongruity of the learning model with the material being presented. Social studies learning should begin with the immediate world, which is frequently encountered and relevant to students' daily lives. Therefore, an alternative learning model, Contextual Teaching and Learning, is being proposed.

The Contextual Teaching and Learning model encourages students to make connections between their existing knowledge and its application in their lives. One of the advantages of the Contextual Teaching and Learning model is that it can encourage students to be more active, make them more aware of their surroundings while learning, and make them more creative. To support the learning process so that it runs smoothly, in addition to using the Contextual Teaching and Learning model, learning media can also be utilized as a tool in the learning process, one of which is Audio Visual media.

Audiovisual media is a type of media that involves both sound and visual elements. Audiovisual media is an intermediary tool that can display images and sound. Setiyawan (2020) states that this type of media can include audio slides, films, and videos. The use of audiovisual media can motivate students to participate in the learning process more focused, thus making learning activities more effective. Furthermore, audiovisual media can convey information contained in learning materials more realistically and can provide learning experiences that cannot be learned directly.

The Contextual Teaching and Learning Learning Model assisted by Audio Visual Media leads to learning that links the material being taught to the real situations of students combined with the use of audio and visual elements. In its implementation, Audio Visual media is used to provide learning
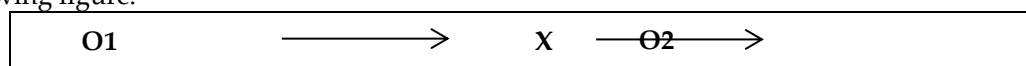
experiences by presenting real examples in the daily lives of students that are adapted to the learning material. By applying the Contextual Teaching and Learning learning model, linking the learning material and the daily lives of students, so that the use of Audio Visual media can help the application of this learning model by providing realistic examples of the material being taught.

Previous research conducted by Rahayu, et al., (2023) with the results of the study of the application of the Contextual Teaching and Learning (CTL) learning model assisted by Audio Visual learning media can complete the learning outcomes of fourth-grade elementary school students because in applying the Contextual Teaching and Learning learning model students can understand the material by relating it to everyday life. In addition to applying the Contextual Teaching and Learning learning model, Audio Visual learning media is used in the form of learning videos that are adapted to the fourth-grade science learning material. The research conducted by Yolanti and Winanto (2023) with the results of the Contextual Teaching and Learning research is able to complete the learning outcomes of science and critical thinking skills because it involves learning in real contexts, encourages students' active experiences, and involves them in critical thinking. In this case, it is expected that the Contextual Teaching and Learning learning model assisted by Audio Visual media can significantly complete the learning outcomes of fourth-grade science students of SD Negeri 1 Tugu Sempurna.

Based on the problem formulation that has been described, the purpose of this study is "To find out the significant completion of the science learning outcomes of Grade IV Students of SD Negeri 1 Tugu Sempurna after the application of the Contextual Teaching and Learning Learning Model assisted by Audio Visual Media". Based on the description above, this study is expected to provide benefits as a reference in developing new theories or knowledge regarding the study of science in the world of education, especially the science of applying the Contextual Teaching and Learning learning model assisted by Audio Visual media that can complete student learning outcomes in science learning.

2. METHODS

This type of research uses a quantitative approach with an experimental research method, this type of experiment is considered good and has met the requirements. What is meant by meeting the requirements is the presence of another group (control) that participates in the observation. With the presence of a control group, the effect of the Baamboozle learning media will be known for certain because it is compared with those who did not receive treatment. The research design used in this study is a Pre-experimental Design (non-design) with a one-group pretest-posttest form with pre-test, treatment and post-test stages to determine the significant completion of the science learning outcomes of fourth-grade students of SD Negeri 1 Tugu Sempurna. This research design can be seen in the following figure.

O1 $\longrightarrow$ X $\longrightarrow$ O2 $\longrightarrow$

Information:

O1 : Pre-test

X : Treatment

O2 : Post-test

This research was conducted at SD Negeri 1 Tugu Sempurna located on Jalan Riya Cilik, Tugu Sempurna Village, Muara Kelingi District, Musi Rawas Regency. The study was conducted in the even semester of the 2024/2025 academic year. The population of this study was 25 fourth-grade students. This study used a saturated sampling technique. Saturated sampling is a sampling technique that uses all populations as samples. This is because the population is relatively small or the author wants to make small errors in his research. Based on the sampling, one class was selected as a sample, namely class IV, consisting of 25 students, including 16 female students and 9 male students. Data collection techniques allow the author to obtain valid and relevant data. Data collection techniques in this study

include observation, interviews, tests, and documentation. Data analysis techniques are carried out to obtain conclusions from solving the problems studied. The data analysis in this study is through; Average Value and Standard Deviation, Data Normality Test, and Hypothesis Test.

3. FINDINGS AND DISCUSSION

This research was conducted for approximately one month and was carried out directly by the author from May 10 to May 31, 2025. The research was conducted at SDN 1 Tugu Sempurna with the aim of knowing the completeness of the fourth grade students' science learning outcomes after the implementation of the Contextual Teaching and Learning learning model assisted by Audio Visual media. The implementation of this research was carried out in three meetings with details of one initial test, two learning treatments with the Contextual Teaching and Learning model assisted by Audio Visual media and one final test carried out on the same day as the second treatment with the aim of knowing the science learning outcomes after the implementation of the Contextual Teaching and Learning model assisted by Audio Visual media.

The study began with a pre-test on May 27, 2025. The purpose of the test was to determine students' initial abilities in Chapter 7, Topic C, Buying and Selling Activities as a Means of Fulfilling Needs. The results of the test showed an average pre-test score of 51.47, with only five students completing the study. This initial test showed that students' social science abilities were still low. This demonstrates the importance of the teacher's role as a facilitator and motivator in providing opportunities for students to actively ask questions and provide responses, enabling them to participate in learning activities.

After conducting a pre-test on students, the second meeting was held on May 28, 2025, using the Contextual Teaching and Learning model assisted by Audio Visual media with the material Chapter 7 Buying and Selling Activities as One of the Needs Fulfillment. By using the teaching module guide, the author carried out the learning process. In the initial learning activities, the teacher (author) conveyed the learning objectives and motivated students to be actively involved in learning and provided apperception.

After the initial activities are carried out, in the phase of developing the idea that learning will be more meaningful by working and constructing students' own new knowledge and skills, the teacher conducts a question and answer session with students by connecting the material with students' daily lives.

In the Inquiry phase, the teacher asks students to express their opinions. The teacher delivers learning materials by showing audio-visual media in the form of videos about economic activities in the buying and selling process. The teacher gives students the opportunity to take turns working on problems on the board. Then, in the phase of developing students' curiosity by asking questions, the teacher gives students the opportunity to ask questions and the teacher asks students to find out the information they understand.

In the phase of creating a learning community, students are divided into five groups of five. The teacher then asks students to sit with their respective group members and assigns them assignments to work on together. The teacher divides the groups heterogeneously, with students with higher abilities being assigned to each group. After the phase of creating a learning community is completed, the next phase involves presenting models or teaching aids as examples of learning. In this phase, the teacher provides direction and guidance to students regarding the tasks to be completed, guides each group, and asks students to share information with their group members.

Next, in phase 6, reflection at the end of the lesson, students are asked to return to their seats and submit their group assignments. Each student is given a question to assess their understanding after completing the learning process. The teacher provides questions based on the material taught regarding buying and selling activities as a means of fulfilling needs. Then, in phase 7, an authentic assessment is conducted by asking various questions. The teacher and students then discuss the questions they have completed, and the teacher conducts an assessment.

The third meeting was held on May 31, 2025, the material taught was the factors causing buying and selling. Activities carried out In the initial learning activities, the teacher (author) conveyed the learning objectives and motivated students to be actively involved in learning and provided apperception. After the initial activities were carried out, in the phase of developing the idea that learning would be more meaningful by working and constructing students' own new knowledge and skills, the teacher conducted a question and answer session with students by connecting the material with students' daily lives.

In the Inquiry phase, the teacher asks students to express their opinions. The teacher delivers learning materials by showing audio-visual media in the form of videos about economic activities in the buying and selling process. The teacher gives students the opportunity to take turns working on problems on the board. Then, in the phase of developing students' curiosity by asking questions, the teacher gives students the opportunity to ask questions and the teacher asks students to find out the information they understand.

In the phase of creating a learning community, students are divided into five groups of five. The teacher then asks students to sit with their group mates and assigns them a task to work on together. The teacher divides the groups heterogeneously, assigning students with higher abilities to each group. After the phase of creating a learning community is completed, the next phase involves presenting models or teaching aids as examples of learning.

In this phase, the teacher provides direction and instructions to students regarding the tasks to be carried out, the teacher guides each group and students are asked to share information with their group members.

Next, in phase 6, reflection, at the end of the lesson, students are asked to return to their seats and submit their group assignments. Each student is given a problem to assess their understanding after completing the learning process. The teacher provides problems or questions based on the material taught regarding the factors causing buying and selling. Then, in phase 7, an authentic assessment is conducted by asking various questions. The teacher and students then discuss the problems they have completed, and the teacher conducts an assessment.

At the final meeting, a post-test was conducted to assess students' final abilities after the implementation of the Contextual Teaching and Learning model assisted by Audio Visual Media. The post-test was conducted on May 31, 2025. After conducting the post-test, the author analyzed the data obtained. Based on the data analysis, the average pre-test score was 51.47 and the average post-test score was 78.76. This is in line with research conducted by(Sapi'i, et al., 2023)and (Nurfadillah et al., 2021), where the application of the Contextual Teaching and Learning learning model assisted by Audio Visual Media can improve student learning outcomes. Four students completed the learning or obtained a score of 68 on the pre-test, while 20 students completed the learning after the application of the Contextual Teaching and Learning learning model assisted by Audio Visual Media. This indicates that the application of the Contextual Teaching and Learning learning model assisted by Audio Visual Media can improve student learning outcomes.≥

4. CONCLUSION

Based on the results of the analysis and discussion in the previous chapter regarding the application of the Contextual Teaching and Learning learning model assisted by Audio Visual media on the learning outcomes of fourth-grade students of SDN 1 Tugu Sempurna, it can be concluded that the students' learning outcomes are significantly completed. So the hypothesis in this study can be accepted as true. In other words, the learning outcomes of fourth-grade students of SDN 1 Tugu Sempurna after the application of the Contextual Teaching and Learning learning model assisted by Audio Visual media are significantly completed.

Based on the research results and conclusions, the author provides suggestions for further researchers who wish to use the Contextual Teaching and Learning learning model assisted by Audio Visual media, it is recommended to be able to apply it to other subjects and more specific fields of study.

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