Vol. 1 No. 2, December 2024

Journal of Student-Centered Learning

https://jscl.ibnusantara.com/

E-ISSN: 3063-4873 | DOI: 10.63687/jscl.v1i2.25

The Effect of Contextual Teaching and Learning on Improving Student Achievement at Madrasah Ibtidaiyah

Vivin Rindayati,[a*] **Hamdan**,[a] **Elya Rosalina**,[a]

[a]Universitas PGRI Silampari Lubuklinggau, South Sumatra, Indonesia

Article Information:
Received 2024-07-04
Revised 2024-11-13
Published 2024-12-02

Keywords: Learning Outcomes, Contextual Teaching and Learning, Elementary Madrasah

Abstract

Several problems in Social Studies (IPS) learning at schools include teaching methods that rarely connect the material to students' daily activities. The Contextual Teaching and Learning (CTL) model offers a solution by helping teachers relate the subject matter to students' real-life experiences. CTL emphasizes planning classroom activities contextually to enhance student engagement and understanding. This study uses a quantitative approach with a quasi-experimental method and a One Group Pre-test Post-test design to examine the effectiveness of the CTL model on student learning outcomes. Data were collected through validated written tests conducted before and after the treatment. The sample was taken by saturated sampling from all 26 fourth-grade students at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau, ensuring full population representation for empirical analysis of learning outcomes. The application of the CTL model effectively improved students' Social Studies learning outcomes, evidenced by increased pre-test to post-test scores and many students achieving the Minimum Competency Criteria (KKM). CTL also creates an active and enjoyable learning atmosphere while developing students' critical and creative thinking skills in a contextual and interactive manner. This study contributes to strengthening evidence that the CTL model effectively enhances Social Studies learning outcomes and students' higher-order thinking skills. The findings support CTL as a teaching strategy capable of fostering active, enjoyable, and meaningful learning environments in educational contexts.

INTRODUCTION

The social studies learning outcomes of students have not yet reached the expected mastery standards because the learning process rarely connects the material to the students' daily experiences and real conditions (Sarumaha, 2022; Darling-Hammond et al., 2023). A conducive learning environment—comfortable, creative, and interactive—is essential for students to actively understand the material and apply it in their lives (Sarbaitinil et al., 2024; Blyznyuk & Kachak, 2024). However, in practice, teachers often do not maximize question-and-answer sessions that can increase active student involvement in learning (Prijanto & Kock, 2021; Martin-Alguacil et al., 2024). According to Tofade et al., (2013), active student participation through questioning is crucial to creating effective two-way interactions between teachers and students. Additionally, Shoimin (2017) argues that the Contextual Teaching and Learning (CTL) model is an approach that helps teachers relate lesson materials to students' life facts through structured and relevant classroom activity planning. Therefore,

How to Cite:
Rindayati, V., Hamdan, H., & Rosalina, E. (2024). The Effect of Contextual Teaching and Learning on Improving Student Achievement at Madrasah Ibtidaiyah. *Journal of Student-Centered Learning, 1(2)*, 51-62. https://doi.org/10.63687/jscl.v1i2.25

Corresponding Author: Vivin Rindayati, Elementary School Teacher Education Study Program, PGRI Silampari University, Lubuklinggau, South Sumatra, Indonesia, email: vivin141019@gmail.com

the implementation of the CTL model is expected to improve IPS learning outcomes by making the learning process more contextual, engaging, and meaningful for students.

Several previous studies share similarities with this research, although differences exist in location, data, and learning themes used. van de Pol et al. (2018) Reporting that during learning, student activity showed an increase in positive responses, and interactions between teachers and students were active. The main difference lies only in the research context used. Safitri & Safii (2022) found that the average pretest and posttest scores using conventional methods were 43.57 and 77.38, respectively, while with the CTL method, these scores increased to 45.68 and 84.54, with differences in themes and research locations making the results not directly comparable. Yanti et al. (2023) also demonstrated that the implementation of the Contextual Teaching and Learning model had a more significant effect on student learning outcomes compared to classes without the model. Furthermore, Meiliyana and Hikmat (2022) stated that the CTL approach positively influenced the poetry writing skills of fourth-grade students at SD Negeri Kapuk 08 Petang. Other studies by Muzaini (2023) and Ratnawati (2023) also confirmed that the CTL model improves Civic Education learning outcomes and student achievement in PPKn subjects at SMP Negeri 5 Kabupaten Tebo.

This study aims to evaluate the mastery of Social Studies (IPS) learning outcomes among fourth-grade students at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau following the application of the Contextual Teaching and Learning (CTL) model. The research is expected to make a meaningful contribution to educational science by enhancing teachers' understanding and proficiency in implementing the CTL approach effectively. Additionally, the findings can provide valuable references for education students, particularly in exploring effective learning strategies that foster critical thinking and boost student achievement. This study also aims to support teachers in developing IPS learning models that are more engaging, efficient, and impactful. Beyond instructional design, the use of the CTL model is anticipated to increase students' motivation and enthusiasm toward Social Studies, helping them overcome learning fatigue. Ultimately, the approach is expected to lead to significant improvements in students' critical thinking abilities and overall academic performance, making the learning process both more dynamic and meaningful.

A research hypothesis serves as a provisional answer to a research problem, typically framed as a research question. This answer is tentative because it is grounded in relevant theoretical frameworks rather than direct empirical evidence obtained through data collection and analysis in the field. describe a hypothesis as an initial, non-final conclusion formed by the researcher that proposes a relationship between two or more variables under investigation. Essentially, a hypothesis represents a theoretical response to the research question that requires validation through empirical data. In this context, the hypothesis formulated in this study is that the implementation of the Contextual Teaching and Learning (CTL) model will lead to a significant improvement in the mastery of Social Studies (IPS) learning outcomes among fourth-grade students at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau. This hypothesis will be tested to determine the effectiveness of CTL in enhancing student learning performance.

METODE

This study uses a quantitative approach with an experimental method as the main research technique. The type of experiment applied is a quasi-experiment, aimed at testing the effect of a treatment on other variables under controlled conditions (Harris et al., 2006). According to Sugiyono (2016), the experimental method is used to observe the impact of a specific treatment systematically and measurably. In this study, the chosen experimental design is a pre-experimental design with a One Group Pre-test and Post-test framework. This design allows the researcher to measure changes in students' learning outcomes before and after receiving treatment in the form of implementing the Contextual Teaching and Learning (CTL) model. With this approach, it is expected to determine how effective the CTL model is in improving student academic achievement.

Data collection techniques in this study focus on measuring student learning outcomes after the application of the CTL model. The method used is a written test technique, which serves to objectively measure students' abilities, knowledge, or skills. Arikunto (2016) explains that a test is a series of

measurement tools used to assess certain aspects, such as intelligence and individual or group abilities. The test in this study consists of 20 multiple-choice questions specifically designed for the taught material. The test is administered twice: initially before treatment (pre-test) and after treatment (post-test). This aims to obtain comparative data on students' learning outcomes before and after using the CTL model so that the influence of the teaching model can be empirically analyzed.

This study employs a saturated sampling technique, which, as explained by Sugiyono (2016), involves selecting the entire population as the research sample. This method was chosen because interviews with the principal and the fourth-grade homeroom teacher at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau confirmed that there is only one regular class at the fourth-grade level. Consequently, all 26 students from this class were included as participants in the study. By incorporating every member of the population, saturated sampling ensures comprehensive data collection that accurately reflects the characteristics and performance of the entire fourth-grade cohort. This thorough representation enhances the validity and reliability of the study's findings. Moreover, the approach allows for greater confidence in generalizing the results to similar educational settings within the madrasah. Thus, using saturated sampling strengthens the study's ability to provide meaningful insights into the effectiveness of the learning model implemented at this specific educational level.

The main data collection method used in this study is testing, which involves a set of instruments specifically designed to assess students' knowledge, skills, or abilities. According to Arikunto (2013), tests serve as essential measurement tools that play a critical role in evaluating learning outcomes. An equally important aspect of this research is the validation of these instruments. Arikunto (2016) explains that validation assesses the validity and reliability of research tools, ensuring they meet established quality standards. A valid instrument accurately measures what it is intended to measure, which is vital for obtaining trustworthy and meaningful data. Consequently, the test instruments utilized in this study have undergone a rigorous validation process to confirm their accuracy and reliability. This validation guarantees that the collected data are scientifically credible and can be used confidently for further analysis and conclusions. Thus, the study's measurement tools adhere to high standards, strengthening the overall integrity of the research findings.

RESULTS AND DISCUSSION

Results

Initial Test Result Data (pre-test)

The pre-test was conducted in the fourth-grade class with the aim of determining the students' initial ability related to the topic My Living Environment before the implementation of the Contextual Teaching and Learning (CTL) model. The pre-test instrument consisted of 17 multiple-choice questions designed to comprehensively measure students' understanding of the material. This test served as an initial step in the research process to obtain baseline data before the learning treatment was applied. All student pre-test scores were collected and compiled into accessible data, which is available in the appendix as documentation for further analysis regarding changes in learning outcomes after the implementation of the learning model.

Table 1. Recapitulation of Pre-Test Result Data

No	Category	Information
1	Mean value	40,50
2	Standard deviation	10,69
3	Lowest value	24
4	Highest value	65
5	Range of values	41
6	Number of students who did not complete	25
7	Number of students who completed	1

Based on the data in table 1, all students scored below 65, so no students achieved learning completion. The highest score obtained by students was 65, while the lowest score reached 24. The

average overall score of students was 40.50 with a standard deviation of 10.69. From these data, it can be concluded descriptively that students' abilities in the material are included in the category of incomplete. This condition is influenced because students have not followed the learning process using the Contextual Teaching and Learning (CTL) model. Thus, the pre-test results show that conventional learning that was previously applied has not been able to improve student learning outcomes optimally.

Final Test Result Data (Post-test)

After knowing the students' learning outcomes in social studies learning were in the incomplete category, the researcher carried out treatment with the Contextual Teaching and Learning model. Then at the end of the study, a test was carried out in the form of a post-test. This test was carried out to determine the final abilities of students after the learning process. The post-test in this study was conducted on May 18, 2024, which was attended by 26 students in the class that had been determined as a sample, namely class IV of Madrasah Ibtidaiyah Negeri 1 Lubuklinggau. The post-test questions used were in the form of multiple choice consisting of 17 questions. The list of post-test scores can be seen in the results data in table 2 below.

Table 2. Recapitulation of Post-test Result Data

No	Category	Information
1	Mean value	78,50
2	Standard deviation	11,15
3	Lowest value	59
4	Highest value	100
5	Range of values	41
6	Number of students who did not complete	2
7	Number of students who completed	24

Based on the data in table 2, 24 students managed to achieve a score of 65 or more, thus being declared to have met the completion criteria. The average post-test score of students was 78.50 with a standard deviation of 11.15. The highest score obtained reached 100, while the lowest score was 59, so the range of scores was at 41. From these results, it can be concluded descriptively that the final ability of students after implementing the Contextual Teaching and Learning model is included in the completion category. These data indicate that the implementation of the CTL model is effective in significantly improving student learning achievement. Thus, the use of this learning model has a real positive impact on the achievement of learning outcomes, proving that the CTL method is able to improve the quality of students' understanding and overall academic performance.

The comparison between students' initial ability (pre-test) and final ability (post-test) reveals a significant improvement. The average pre-test score was only 40.50, but following the implementation of the Contextual Teaching and Learning (CTL) model, the average post-test score rose substantially to 78.50. This marked increase indicates that the learning outcomes of fourth-grade students at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau have improved significantly and have met the predetermined mastery criteria. These results provide strong evidence supporting the effectiveness of the CTL model in enhancing overall student learning achievement. By engaging students actively and connecting learning material to real-life contexts, CTL facilitates deeper understanding and better academic performance. Consequently, the successful application of this model demonstrates its capability to substantially elevate the quality of education and improve students' academic results within this educational setting. This underscores the importance of adopting CTL as a practical and impactful teaching strategy.

Data Normality Test

The normality test aims to determine whether the data obtained follows a normal distribution or not. To test the normality of the data, the Chi-square goodness of fit test ($\chi 2$) is used. According to

statistical rules with a significance level of 5% or α = 0.05, if the value of $\chi 2$ count is smaller than $\chi 2$ table, then the data is considered to be normally distributed. In this study, the results of the recapitulation calculation of the normality test for post-test data can be seen in the following table. Thus, this test is an important step to ensure that the data meets the necessary normality assumptions before conducting further statistical analysis.

Table 3. Normality Test Results

Class	χ^2 hitung	Dk	χ^2 tabel	Conclusion
Pre-test	2,9229	5	11,07	Normal
Post-test	3,0247	5	11,07	Normal

Based on table 4.3, the calculated $\chi 2$ value for the post-test data is smaller than the table $\chi 2$ value (count < table), so the post-test data is normally distributed at a confidence level of α = 0.05. The significance value for the pre-test is 2.9229, which is smaller than 11.07, and for the post-test is 3.0247, also smaller than 11.07. Thus, the results of the normality test indicate that the final test data (post-test) meets the assumption of normal distribution, which means that the data is suitable for further statistical analysis.

Hypothesis Testing (z-Test)

Hypothesis testing in this study aims to determine whether there is a significant increase in students' cognitive learning outcomes after participating in learning with the Contextual Teaching and Learning (CTL) model. Statistical testing is carried out by comparing pre-test and post-test scores to draw conclusions. The hypothesis tested is related to the social studies learning outcomes of grade IV students of Madrasah Ibtidaiyah Negeri 1 Lubuklinggau in the 2023/2024 academic year after implementing the CTL model. The null hypothesis (Ho) states that the average post-test score of students is significantly less than 65 ($\mu_2 < 65$), while the alternative hypothesis (Hα) states that the average post-test score of students is significantly equal to or greater than 65 ($\mu_2 \geq 65$), indicating an increase in learning outcomes that meet the minimum completeness criteria.

Based on the z-test calculation, the hypothesis results for the post-test data presented in table 4.4 show results that can be further analyzed. The data provides an overview of the significance of the increase in learning outcomes after the application of the learning model, which will be explained in detail in the next section.

Tabel 4. Rekapitulasi Hasil Uji Hipotesis Data *Post-test*

Tes	Z_{hitung}	Z_{tabel}	Information
Post-test	6,32	1,64	$Z_{hitung} > Z_{tabel}$ H_a diterima

Based on the hypothesis test calculation, the obtained Zcount value is 6.32, which is compared against the Ztable value of 1.64 at a 5% significance level. The testing rule states that if Zcount is greater than or equal to Ztable, the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted. Conversely, if Zcount is less than or equal to Ztable, Ho is accepted, and Ha is rejected. In this study, since the Zcount value of 6.32 exceeds the Ztable value of 1.64, the null hypothesis is rejected, and the alternative hypothesis is accepted. This indicates that the proposed hypothesis is supported by the data. Specifically, it confirms that the learning outcomes of fourth-grade students in Social Studies at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau have significantly improved following the implementation of the Contextual Teaching and Learning (CTL) model. The students achieved a level of completeness that meets the established standards, demonstrating the effectiveness of the CTL model in enhancing student learning achievement in this educational context.

After the research was conducted by applying the Contextual Teaching and Learning learning model, the initial test (pre-test) and final test (post-test) were carried out. The data from both tests were then tested for normality to determine the distribution of the data. The test results showed a pre-test significance value of 2.9229 and a post-test of 3.0247, both of which were greater than 11.07, so

that the post-test data were declared normally distributed. Furthermore, hypothesis testing was carried out using the z-test with a Zcount value of 6.32 and a Ztable of 1.64. Because Zcount is greater than Ztable (6.32> 1.64), the alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) is rejected. Thus, it can be concluded that the learning outcomes of grade IV students of Madrasah Ibtidaiyah Negeri 1 Lubuklinggau after participating in social studies learning using the CTL model significantly achieved a completeness value of ≥ 65.

Discussion

Improving Student Learning Outcomes through Contextual Teaching and Learning Model

Research conducted at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau indicates that the implementation of the Contextual Teaching and Learning (CTL) model is highly effective in enhancing students' understanding of Social Studies material (Susiloningsih, 2016). The CTL model encourages students to actively engage in the learning process by relating the lesson content to the real-life contexts and experiences they encounter daily (Haziyah et al., 2024). This approach aligns with the views of Istiqomah & Azzahra (2024), who emphasize the importance of active student involvement through contextual and relevant learning. The study showed a significant improvement in student learning outcomes, with average pre-test scores increasing from 40.50 to 78.50 in the post-test. These findings demonstrate that the use of the CTL model can have a substantial positive impact on Social Studies learning, thereby improving both academic achievement and comprehensive conceptual understanding (Taş & Minaz, 2024).

Statistical analysis using the z-test further supports these results, with a calculated z-value of 6.32, which is higher than the critical value of 1.64 at a 5% significance level. As explained by Sugiyono (2016), if the calculated z exceeds the critical value, the alternative hypothesis is accepted. This confirms a significant positive impact of the Contextual Teaching and Learning (CTL) model on students' academic achievements. Moreover, out of 26 students participating in the study, 24 successfully reached the Minimum Competency Criteria (KKM) with a threshold score of 65. These findings provide strong evidence that the CTL model effectively enhances student learning outcomes. The results demonstrate the model's capability to improve educational quality at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau by fostering better academic performance and supporting students in meeting established competency standards. This underscores the practical value of CTL as an instructional strategy in this educational setting.

The findings of this study align closely with the expert opinion of Safitri et al. (2022), who emphasize that the implementation of the Contextual Teaching and Learning (CTL) model significantly improves Social Studies learning outcomes. Mebert et al. (2020) further assert that connecting lesson content to students' real-life experiences greatly enhances both conceptual understanding and overall academic performance. By integrating real-world contexts into the curriculum, CTL makes learning more relevant and accessible, facilitating students' comprehension. According to Murni and Saputra (2023), this approach not only elevates academic achievement but also serves as an effective instructional strategy well-suited for madrasah ibtidaiyah education. AlGerafi et al. (2023) highlight CTL as an innovative and practical teaching method capable of raising the quality of elementary education. Zee and Koomen (2016) add that, especially in Social Studies, CTL provides meaningful learning experiences by linking classroom knowledge to daily life, promoting deeper engagement and improved understanding. Therefore, CTL is recommended as a valuable strategy to enhance educational outcomes in primary education.

This study clearly demonstrates that implementing the Contextual Teaching and Learning (CTL) model significantly enhances both academic performance and conceptual understanding in Social Studies among students at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau. The data show a substantial increase in average scores from pre-test to post-test, with a majority of students meeting the Minimum Competency Criteria (KKM). The z-test results further validate these findings, as the calculated z-value surpasses the critical threshold, confirming the positive effect of CTL on student achievement. These outcomes align with previous research highlighting CTL's effectiveness in

linking lesson content to students' real-life experiences, which improves the relevance and depth of understanding. Therefore, CTL is strongly recommended as a progressive and impactful instructional approach for madrasah ibtidaiyah, aiming to elevate the overall quality of primary education, especially within the Social Studies curriculum.

Contextual Teaching and Learning in Increasing Student Motivation and Engagement

Amelia (2022) explains that applying the Contextual Teaching and Learning (CTL) model fosters a learning environment that is active, creative, and enjoyable for students. This method motivates learners to engage actively in the learning process, encouraging them not just to passively receive information but to actively participate in building their understanding. Dewi (2021) highlights the importance of a positive and enjoyable learning atmosphere, which plays a crucial role in boosting students' interest and motivation toward learning. Additionally, Isti'ana (2024) points out that emphasizing student activity and involvement enhances the effectiveness of the learning process, making it easier for students to grasp and retain information. The CTL model supports this by incorporating students' everyday experiences into the lessons, which helps students feel more connected to the content and perceive the material as relevant and meaningful to their lives. This integration ultimately deepens their comprehension and engagement with the subject matter.

Kismatun (2021) highlights that the Contextual Teaching and Learning (CTL) model fosters interactive learning by encouraging students to actively build their own knowledge rather than passively receiving information. Babullah (2022), referencing constructivist theory, stresses that students' active engagement is crucial for developing new knowledge, a perspective reinforced by Arafah et al. (2023). In the CTL approach, Yolanda and colleagues (2024) emphasize the importance of connecting lesson content with students' real-life experiences and surroundings. This connection makes learning more meaningful, enabling students to achieve deeper understanding and apply their knowledge practically in everyday situations. As a result, CTL moves students beyond simple memorization toward genuine comprehension. By promoting contextualized learning, CTL encourages learners to internalize concepts and use their knowledge effectively, preparing them for real-world challenges and fostering critical thinking and problem-solving skills essential for their academic and personal growth.

Rikizaputra and colleagues (2021) emphasize that student learning outcomes are shaped by a combination of internal and external factors, with learning motivation playing a critical role. This motivation largely stems from a supportive and conducive learning environment. Dewi (2024) highlights that such an environment, as fostered through the Contextual Teaching and Learning (CTL) model, significantly boosts students' motivation to actively engage in their studies and participate meaningfully in learning activities. Unlike traditional methods that focus solely on theoretical delivery, CTL offers a dynamic space where students can interact, collaborate, and discuss ideas with their peers. These interactive activities promote deeper involvement, which is crucial for a holistic learning experience. Educational experts concur that active student participation is fundamental for effective learning. When students are fully engaged, they are more likely to achieve higher academic outcomes and develop a more profound understanding of the subject matter. Therefore, CTL's emphasis on creating an engaging, collaborative, and motivating environment plays a pivotal role in enhancing student success and comprehension.

This study demonstrates that the Contextual Teaching and Learning (CTL) model effectively fosters a learning environment that is active, creative, and enjoyable by promoting direct student engagement in the knowledge-building process. By incorporating students' real-life experiences into lessons, CTL makes learning more relevant and meaningful, which helps prevent superficial memorization of material. Furthermore, CTL supports interactive learning where students actively construct knowledge, aligning with Piaget's constructivist theory emphasizing active cognitive development. The model also creates a supportive and conducive learning atmosphere that enhances student motivation and encourages greater participation. This heightened level of involvement is crucial for academic success, as students who are fully engaged tend to achieve better learning

outcomes and develop deeper understanding of the material. Consequently, CTL serves as an effective instructional approach that can substantially elevate the quality and effectiveness of educational experiences, making it a valuable strategy for improving overall student achievement and comprehension.

The Impact of CTL Learning on Students' Critical and Creative Thinking Skills

According to Sa'diyah et al. (2022), the implementation of the Contextual Teaching and Learning (CTL) model, which emphasizes a contextual and interactive approach, provides great opportunities for students to indirectly develop critical thinking skills and analytical abilities. Badi (2022) explains that critical thinking is an active process involving analysis, evaluation, and synthesis of information to make appropriate decisions. Through the CTL model, students are faced with learning situations relevant to real life, encouraging them to think more deeply rather than passively receiving information. This contextual and interactive learning process stimulates students to actively analyze material in various contexts while systematically and structurally training their critical thinking skills.

Rukajat (2018) explains that the Contextual Teaching and Learning (CTL) model fosters a learning environment that is both enjoyable and challenging. This approach encourages students not only to grasp theoretical concepts but also to apply their knowledge practically in real situations. Soleha et al. (2021) describe creativity as the capacity to generate novel ideas and develop innovative solutions to problems. Within the CTL framework, Nucifera et al. (2023) emphasize that students are actively engaged in evaluating and solving problems drawn from their daily real-life experiences, which plays a crucial role in nurturing creativity. These stimulating and enjoyable learning activities create an ideal setting for the optimal growth of students' creative thinking abilities. In addition to fostering creativity, this kind of environment boosts students' motivation to learn, making the entire learning process more effective and meaningful. By combining enjoyment with challenge, CTL helps students develop critical skills while maintaining high levels of engagement and enthusiasm throughout their educational journey.

Astuti and Jailani (2021) highlight that the Contextual Teaching and Learning (CTL) model significantly enhances the quality of education by focusing on the development of higher-order thinking skills, including critical and creative thinking. This perspective aligns closely with Dahlan's (2020) emphasis on social constructivist learning, which underscores the vital role of social interactions and contextual factors in cognitive growth. Within the CTL framework, students engage not only in individual learning but also in collaborative activities such as discussions and group projects that foster their analytical and evaluative skills. These interactive processes encourage deeper thinking and reflection, making CTL a powerful instructional approach for cultivating essential higher-order cognitive abilities. As a result, CTL effectively equips students to navigate complex learning environments and challenges with greater adaptability and critical insight. This comprehensive method thus prepares learners to meet the demands of modern education and develop skills necessary for lifelong learning and problem-solving.

Research indicates that the Contextual Teaching and Learning (CTL) model is highly effective in fostering students' critical and creative thinking abilities through its emphasis on contextual and interactive learning. By engaging students in analyzing and solving real-world problems in a systematic manner, CTL creates an educational environment that is both enjoyable and intellectually stimulating. This dynamic approach not only enhances students' motivation to learn but also promotes active participation through discussions and collaborative group work. These interactions further develop students' analytical and evaluative capabilities, essential components of higher-order thinking. As a result, CTL prepares learners to meet the demands of contemporary education by equipping them with the skills needed to adapt and respond thoughtfully to complex challenges. Overall, CTL serves as a powerful instructional strategy that cultivates deeper understanding and critical thinking, ensuring students are better prepared for academic success and real-life problem-solving.

CONCLUSION

Research at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau shows that the implementation of the Contextual Teaching and Learning (CTL) model effectively improves students' Social Studies learning outcomes, evidenced by the increase in average pre-test scores from 40.50 to 78.50 in the post-test and many students achieving the Minimum Competency Criteria (KKM). The CTL model also successfully creates an active, creative, and enjoyable learning environment that motivates students to participate actively in the learning process. Furthermore, CTL indirectly develops students' critical and creative thinking skills through contextual and interactive activities. These findings align with previous studies confirming that CTL enhances academic achievement and higher-order thinking skills in the learning process.

Theoretically, this research confirms that the CTL model effectively improves learning outcomes and students' critical and creative thinking abilities, strengthening the theoretical foundation of contextual learning that emphasizes active student engagement. Practically, the results encourage educators, especially in madrasah ibtidaiyah, to adopt the CTL model in planning and implementing Social Studies lessons to create a more dynamic and enjoyable learning atmosphere. This is expected to significantly increase motivation, active participation, and student achievement while developing higher-order thinking skills essential for academic and real-life challenges.

Based on these findings, it is recommended that further research explore the application of the CTL model in other subjects or educational levels to assess its broader effectiveness. Additionally, future studies may incorporate other variables such as learning motivation or student characteristics for a more comprehensive understanding. The limitations of this study include a sample drawn from only one class at Madrasah Ibtidaiyah Negeri 1 Lubuklinggau, limiting the generalizability of the results. Moreover, the relatively short duration of the treatment also restricts the ability to measure the long-term impact of CTL implementation on students' critical and creative thinking skills.

ACKNOWLEDGEMENTS

The researcher would like to thank the parents who have given their support. To the Madrasah Ibtidaiyah Negeri 1 Lubuklinggau school which has given permission to conduct the research, the researcher would also like to thank the supervising lecturer who has guided to make this scientific work, Mr. Dr. Hamdan, M.Pd. and Mrs. Elya Rosalina, M.Pd.,Mat. and friends who have helped and provided support.

AUTHOR CONTRIBUTION STATEMENT

VR was responsible for conceptualization, design, analysis, and writing, H and ER were responsible for interpreting the research results and providing direction.

REFERENCES

AlGerafi, M. A. M., Zhou, Y., Oubibi, M., & Wijaya, T. T. (2023). Unlocking the Potential: A Comprehensive Evaluation of Augmented Reality and Virtual Reality in Education. *Electronics, 12(18)*, 3953. https://doi.org/10.3390/electronics12183953

Amelia, N. D., Hilyana, F. S., & Santoso. (2022). Peran Guru dalam Menumbuhkan Minat Belajar PPKn Siswa Sekolah Dasar. *Jurnal Educatio FKIP UNMA, 8(3)*, 953–959. https://doi.org/10.31949/educatio.v8i3.2957

Arafah, A. A. Sukriadi, S., & Samsuddin, A. F. (2023). Implikasi Teori Belajar Konstruktivisme pada Pembelajaran Matematika. *Jurnal Pendidikan MIPA, 13(2)*, 358-366. https://doi.org/10.37630/jpm.v13i2.946

Arikunto, S. (2013). *Prosedur Penelitian*. Jakarta: Rineka Cipta.

Arikunto, S. (2016). *Prosedur Penelitian: Suatu Pendekatan Praktik* (Edisi revisi). Jakarta: PT. Rineka Cipta. https://repository.umy.ac.id/bitstream/handle/123456789/20873/BAB%20I.pdf?sequence=3

Astuti, T. A., & Jailani, J. (2021). Kontribusi Kompetensi Guru Matematika SMP Terhadap Prestasi Belajar Siswa. *Jurnal Riset Pendidikan Matematika, 7(2)*, 241–253. https://doi.org/10.21831/jrpm.v7i2.16453

Babullah, R. (2022). Teori Perkembangan Kognitif Jean Piaget dan Penerapannya dalam Pembelajaran. *Epistemic: Jurnal Ilmiah Pendidikan, 1(2)*, 131–152. https://doi.org/10.70287/epistemic.v1i2.10

Badi, J., Mobonggi, A., & A. Buhungo, R. (2022). Peningkatan Kemampuan Berfikir Kritis Menggunakan Metode Diskusi di Sekolah Dasar. *Educator (Directory Of Elementary Education Journal), 3(2)*, 189–200. https://doi.org/10.58176/edu.v3i2.870

Blyznyuk, T., & Kachak, T. (2024). Benefits of Interactive Learning for Students' Critical Thinking Skills Improvement. *Journal of Vasyl Stefanyk Precarpathian National University, 11(1)*, 94–102. https://doi.org/10.15330/jpnu.11.1.94-102

Dahlan, D. (2020). Implemenntasi Metode Problem Solving Untuk Meningkatkan Motivasi dan Hasil Belajar Siswa Mata Pelajaran Bahasa Ingris di SMPN 3 Bolo Tahun Pelajaran 2019/2020. JUPE?: *Jurnal Pendidikan Mandala, 5(6)*. https://doi.org/10.36312/jupe.v5i6.1685

Darling-Hammond, L., Schachner, A. C. W., Wojcikiewicz, S. K., & Flook, L. (2023). Educating Teachers To Enact The Science Of Learning And Development. *Applied Developmental Science, 28(1*), 1–21. https://doi.org/10.1080/10888691.2022.2130506

Dewi, D. A., Hamid, S. I., Annisa, F., Oktafianti, M., & Genika, P. R. (2021). Menumbuhkan Karakter Siswa melalui Pemanfaatan Literasi Digital. *Jurnal Basicedu, 5(6)*, 5249–5257. https://doi.org/10.31004/basicedu.v5i6.1609

Dewi, N. S., Wati, A., & Farhurohman, O. (2024). Implementasi Model Pembelajaran Contextual Teaching And Learning (CTL) Untuk Meningkatkan Hasil Belajar Siswa Pada Pembelajaran IPS Kelas 4 MI. *CENDEKIA: Jurnal Ilmu Sosial, Bahasa dan Pendidikan, 4(4)*, 280–289. https://doi.org/10.55606/cendekia.v4i4.3318

Harris, A. D., McGregor, J. C., Perencevich, E. N., Furuno, J. P., Zhu, J., Peterson, D. E., & Finkelstein, J. (2006). The Use And Interpretation Of Quasi-Experimental Studies In Medical Informatics. *Journal of the American Medical Informatics Association: JAMIA, 13(1)*, 16–23. https://doi.org/10.1197/jamia.M1749

Haziyah, S. F., Nugraheni, N., & Ambastari, S. (2024). Penerapan Model Contextual Teaching and Learning (CTL) untuk Meningkatkan Hasil Belajar Bahasa Indonesia pada Siswa Kelas IV Sekolah Dasar. *Jurnal Basicedu, 8(3)*, 1875–1884. https://doi.org/10.31004/basicedu.v8i3.7495

Isti'ana, A. (2024). Integrasi Teknologi dalam Pembelajaran Pendidikan Islam. *Indonesian Research Journal on Education, 4(1)*, 302 –. https://doi.org/10.31004/irje.v4i1.493

Istiqomah,. & Azzahra, N. A. (2024). Strategi Pembelajaran Aktif Untuk Meningkatkan Keterlibatan Siswa Dalam Pembelajaran Di Kelas. *BESTARI: Jurnal Pengabdian Kepada Masyarakat, 1(1)*, 19–26. https://ejournal.almusthofa.org/index.php/bestari/article/view/5

Kismatun, K. (2021). Contextual Teaching And Learning Dalam Pendidikan Agama Islam. *TEACHER: Jurnal Inovasi Karya Ilmiah Guru, 1(2)*, 123-133. https://doi.org/10.51878/teacher.v1i2.718

Martin-Alguacil, N., Avedillo, L., Mota-Blanco, R., & Gallego-Agundez, M. (2024). Student-Centered Learning: Some Issues and Recommendations for Its Implementation in a Traditional Curriculum Setting in Health Sciences. *Education Sciences, 14(11)*, 1179. https://doi.org/10.3390/educsci14111179

Mebert, L., Barnes, R., Dalley, J., Gawarecki, L., Ghazi-Nezami, F., Shafer, G., … Yezbick, E. (2020). Fostering student engagement through a real-world, collaborative project across disciplines and institutions. *Higher Education Pedagogies, 5(1)*, 30–51. https://doi.org/10.1080/23752696.2020.1750306

Meiliyana, A., & Hikmat, A. (2022). Pengaruh Pendekatan Contextual Teaching And Learning (Ctl) Terhadap Kemampuan Menulis Puisi Pada Siswa Kelas Iv Sekolah Dasar. *Jurnal Cakrawala Pendas, 8(4)*, 1047–1055. https://doi.org/10.31949/jcp.v8i4.2816

Murni, M., & Saputra, N. (2023). Increasing Academic Achievement through Madrasah Principal Strategies. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam, 8(3)*, 386-400. https://doi.org/10.31538/ndh.v8i3.4124

Muzaini, M. C. (2023). Pengaruh Model Pembelajaran Contextual Teaching And Learning Terhadap Hasil Belajar Peserta Didik Sekolah Dasar Pada Pendidikan Kewarganegaraan. *Didaktik: Jurnal Ilmiah PGSD STKIP Subang, 9(04)*, 2006-2019. https://doi.org/10.36989/didaktik.v9i04.1746

Naibaho, M. H., Syahfitri, L., & Bahri, S. (2024). Optimalisasi Hasil Belajar Siswa Menggunakan Model PBL Berbantuan Media Curipod di SMA. *JPRONUS - Jurnal Pendidikan Profesi Guru Nusantara, 1(02)*, 13-20. Retrieved from https://www.jurnal-lp2m.umnaw.ac.id/index.php/jppg/article/view/3570

Nucifera, A. N., Suryanti, H. H. S., & Rizkasari, E. (2023). Penerapan Contekstual Teaching & Learning (CTL) dengan Metode Inquiry dalam Materi Tema 6 Energi dan Perubahannya Kelas III di SD Negeri Tugu Jebres No.120 Surakarta Tahun 2022/2023. *Jurnal Pendidikan Tambusai, 7(3)*, 20059–20062. https://doi.org/10.31004/jptam.v7i3.9435

Prijanto, J. H., & Kock, F. de. (2021). Peran Guru Dalam Upaya Meningkatkan Keaktifan Siswa Dengan Menerapkan Metode Tanya Jawab Pada Pembelajaran Online. *Scholaria: Jurnal Pendidikan Dan Kebudayaan, 11(3)*, 238–251. Retrieved from https://ejournal.uksw.edu/scholaria/article/view/4318

Ratnawati, R. (2023). Upaya Peningkatan Hasil Belajar Ppkn Siswa Melalui Penerapan Metode Contextual Teaching And Learning (Ctl) Di Smpn 5 Kabupaten Tebo. *Jurnal Hasil Penelitian Dan Pengembangan (JHPP), 1(2)*, 50–58. https://doi.org/10.61116/jhpp.v1i2.76

Rikizaputra, R., Sembiring, A. K., Dinata, M., Azhar, M., & Yohandri, Y. (2021). Kemandirian Dan Motivasi Belajar Biologi Siswa Menggunakan Google Classroom Pada Masa Pandemi Covid-19. *Bio-Lectura: Jurnal Pendidikan Biologi, 8(2)*, 158–166. https://doi.org/10.31849/bl.v8i2.7943

Rukajat, A. (2018). Pembelajaran Contextual Teaching And Learning Untuk Meningkatkan Mutu Hasil Pembelajaran, *al-Afkar, Journal For Islamic Studies, 1(2)*, pp. 55–72. https://doi.org/10.31943/afkar_journal.v2i1.24

Sa'diyah, H., Islamiah, R., & Fajari, L. E. W. (2022). Meningkatkan Keterampilan Berpikir Kritis Siswa Melalui Metode Diskusi Kelompok: Literature Review. *Journal of Professional Elementary Education, 1(2)*, 148–157. https://doi.org/10.46306/jpee.v1i2.19

Safitri, N., & Safii, M. (2022). Pengaruh Beban Pajak Tangguhan, Perencanaan Pajak, Dan Kebijakan Dividen Terhadap Nilai Perusahaan: Studi Empiris Pada Perusahaan Sektor Barang dan Konsumsi Yang Terdaftar di Bursa Efek Indonesia. *Yudishtira Journal Indonesian Journal of Finance and Strategy Inside, 2(2)*, 280–292. https://doi.org/10.53363/yud.v2i2.41

Sarbaitinil, Muzakkir, Yasin, M., Baresi, I. S., & Muhammadong. (2024). Menumbuhkan Minat Belajar Siswa Melalui Metode Pembelajaran Kreatif. *Journal of International Multidisciplinary Research, 2(2)*, 367–379. https://doi.org/10.62504/JIMR75xf4w76

Sarumaha, M. (2022). Penerapan Strategi Pembelajaran Critical Incident. *TUNAS: Jurnal Pendidikan Biologi, 3(2),* 1-9. https://doi.org/10.57094/tunas.v3i2.438

Soleha, F., Akhwani, A., Nafiah, N., & Rahayu, D. W. (2021). Model Pembelajaran Contextual Teaching And Learning untuk Meningkatkan Hasil Belajar PKN di Sekolah Dasar. *Jurnal Basicedu, 5(5)*, 3117–3124. https://doi.org/10.31004/basicedu.v5i5.1285

Sugiyono. (2014). *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*. Bandung: Alfabeta. https://opac.perpusnas.go.id/DetailOpac.aspx?id=911046

Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*. Bandung: Alfabeta. https://elibrary.bsi.ac.id/readbook/204383/metode-penelitian-pendidikan-pendekatan-kuantitatif-kualitatif-dan-r-d.html

Susiloningsih, W. (2016). Model Pembelajaran CTL (Contextual Teaching and Learning) dalam Meningkatkan Hasil Belajar Mahasiswa PGSD Pada MataKuliah Konsep IPS Dasar. *Pedagogia: Jurnal Pendidikan, 5(1)*, 57-66. https://doi.org/10.21070/pedagogia.v5i1.89

Taş, H., & Minaz, M. B. (2024). The Effects of Learning Style-Based Differentiated Instructional Activities on Academic Achievement and Learning Retention in the Social Studies Course. *SAGE Open, 14(2)*. https://doi.org/10.1177/21582440241249290

Tofade, T., Elsner, J., & Haines, S. T. (2013). Best Practice Strategies For Effective Use Of Questions As A Teaching Tool. *American Journal Of Pharmaceutical Education, 77(7)*, 155. https://doi.org/10.5688/ajpe777155

van de Pol, J., Mercer, N., & Volman, M. (2018). Scaffolding Student Understanding in Small-Group Work: Students' Uptake of Teacher Support in Subsequent Small-Group Interaction. *Journal of the Learning Sciences, 28(2)*, 206–239. https://doi.org/10.1080/10508406.2018.1522258

Yanti, R. D., Hamdani, H., & Halidjah, S. (2023). Pengaruh Model Contextual Teaching And Learning Dalam Pembelajaran Tematik Terhadap Hasil Belajar Siswa Kelas Vi Sekolah Dasar Negeri 12 Pontianak Kota. *Community Development Journal: Jurnal Pengabdian Masyarakat, 4(6)*, 11399–11405. https://doi.org/10.31004/cdj.v4i6.22397

Yolanda, A., Sihotang, M., Zebua, J. A., Hutasoit, M., & Sinaga, Y. L. (2024). Strategi Pembelajaran Kontekstual Untuk Meningkatkan Pemahaman Konsep Siswa Sekolah Dasar. *Pragmatik: Jurnal Rumpun Ilmu Bahasa dan Pendidikan, 2(3)*, 301–308. https://doi.org/10.61132/pragmatik.v2i3.941

Zee, M., & Koomen, H. M. Y. (2016). Teacher Self-Efficacy and Its Effects on Classroom Processes, Student Academic Adjustment, and Teacher Well-Being: A Synthesis of 40 Years of Research. *Review of Educational Research, 86(4)*, 981-1015. https://doi.org/10.3102/0034654315626801