

THE EFFECT OF THE CONTEXTUAL TEACHING AND LEARNING (CTL) MODEL ON STUDENT LEARNING OUTCOMES IN ISLAMIC RELIGIOUS EDUCATION FOR GRADE V AT SD INPRES 3 TALISE

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ABSTRACT

Conventional teaching methods in Islamic Religious Education (PAI) often limit student engagement and conceptual understanding, leading to suboptimal academic performance. This research investigates the impact of the Contextual Teaching and Learning (CTL) model on the learning outcomes of fifth-grade students in the PAI subject at SD Inpres 3 Talise. A quantitative approach utilizing a quasi-experimental Non-Equivalent Control Group Design was employed. The sample consisted of 46 students selected through purposive sampling, divided equally into a control class (VA) and an experimental class (VB). Data collection relied on validated and reliable multiple-choice tests administered as pretests and posttests. Initial baseline assessments indicated equivalent prior knowledge between both groups, with an identical average pretest score of 52,61. Following the intervention, the experimental class, which received instruction via the CTL model, achieved an average posttest score of 81,77. In contrast, the control class, taught using conventional methods, recorded a lower average posttest score of 73,28. Because the data distribution was not normal based on the Shapiro-Wilk test, hypothesis testing was conducted using the non-parametric Mann-Whitney U test. The statistical analysis yielded a significance value of 0,000 ($p < 0,05$), leading to the rejection of the null hypothesis. The application of the CTL model significantly improves student learning outcomes in PAI by directly connecting theoretical religious concepts to students' real-life experiences, thereby fostering active participation and deeper comprehension.

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INTRODUCTION

Education is the initial process of humans in helping to develop their potential so they can face every change that occurs from time to time. Education is also an effort made and carried out regularly and systematically which

aims to mature students by providing useful knowledge and training skills, and instilling good morals. National education system law No. 20 of 2003 states that the goal of national education is to educate the life of the nation and develop a whole human being, namely humans who are devoted to God Almighty and have noble character, possess knowledge and skills, physical and spiritual health, a steady and independent personality, as well as community and national responsibility (UU Sisdiknas 2003). Islamic religious education (PAI) plays a very important role in terms of shaping morals and behavior, character, and the religious attitude of students from an early age. Islamic religious education (PAI) as one of the subjects taught in schools has a very strategic role to form the personality of the ummah and the nation (students) who are tough, both in terms of morality and from the aspect of science and technology Sofwan et al., in (Aziz et al., 2020).

However, in practice, PAI learning in elementary schools is often still conventional in nature, where teachers use lecture and memorization methods more. However, the reality we see today is that PAI learning in schools is in the spotlight of education experts that PAI learning is less successful in instilling moral and religious values to students. Hartati in Asep et al. (2020). This can be seen from the rampant occurrence of social pathology in adolescents (students), such as drug abuse, mugging, promiscuity and brawls, as well as other social diseases. This results in student learning outcomes becoming less than optimal. Based on interviews and observations conducted on Wednesday, October 29, 2025, a problem was found with the low learning outcomes of fifth-grade students of SD Inpres 3 Talise in the subject of Islamic religious education (PAI). Students quickly feel bored and saturated when listening to explanations from the teacher, the teacher explains the material using the lecture method and occasionally asks and answers questions with students. This causes the results obtained by students to be low and unsatisfactory, where there are still many students who get scores below the Minimum Completeness Criteria (KKM) that has been determined, which is 75.

To overcome this, an educator (teacher) needs an appropriate strategy to be applied in the PAI learning process, especially in elementary schools. The model is a conceptual framework that describes the procedures in organizing learning experiences to achieve learning objectives (Purnomo Agus, et al, 2022). The relevant learning model used in accordance with the above concept is contextual teaching and learning (CTL). Contextual learning was initially developed by John Dewey from his traditional learning experiences. John Dewey (1918) in his work democracy and education: An introduction to the philosophy of education asserts that the true learning process does not only occur through the delivery of information, but through thinking activities and meaningful experiences. Contextual teaching and learning model is learning that attempts to connect student knowledge with real-life contexts to build meaningful knowledge, Mashudi & Fatimah, (2020). The implementation of CTL is problematic-based learning, utilizing the students' environment to obtain learning activities, providing group activities, creating independent learning activities, creating independent learning activities, making learning activities cooperate with the community (Hidayat. T & Syahidin in Prihantoro; 2020; 8-9).

In the context of Islamic religious education (PAI), the application of the CTL model is very relevant, considering the purpose of religious education is not only to teach theory, but also to form the character and spiritual values of students. The importance of implementing CTL in PAI is also discussed by Sukardi and Widodo who explain that innovation in context-based learning can create a more interactive and collaborative environment. Various previous studies indicate that the application of the Contextual Teaching and Learning (CTL) model can provide a positive influence on student learning outcomes. For example, research by Oktaria, R., et al. (2024) shows that the use of the CTL model in PAI learning can significantly improve student learning outcomes. A similar thing was also found by Putri, N. N. E., & Subando, J. (2025) who stated that the CTL model is able to improve student learning outcomes. Novi & Joko Subando (2025) in their research said that after the application of the CTL model, there was a significant increase in student learning outcomes. Reni (2024) in her research concluded that there is an effect of applying the contextual teaching and learning model on student learning outcomes in the subject of Islamic Religious Education.

Khaf Shah., et al (2025) in their research show that the application of the CTL model significantly increases student motivation and learning outcomes.

Therefore, the researcher is interested in conducting a research entitled "the effect of using the contextual teaching and learning (CTL) learning model on student learning outcomes in the subject of Islamic religious education for class V SD Inpres 3 Talise".

METHOD

This type of research is quantitative research. The research design used in this study is a quasi-experiment with a Non-Equivalent Control Group Design. In this design, there are two groups, namely the experimental class and the control class. Both classes were equally given a pretest before the treatment and a posttest after the treatment. The difference is that the experimental class receives treatment in the form of applying the Contextual Teaching and Learning (CTL) learning model, while the control class uses conventional learning.

Table 1. Non-Equivalent Control Group Design Research Design

Class	Pretest	Treatment	Posttest
Experiment	O1	X	O2
Control	O3	-	O4

This research was conducted at SD Inpres 3 Talise, located on Jalan Tallasa, Talise Sub-district, Mantikulore District, Palu City, Central Sulawesi Province. This research was conducted in the even semester of the 2025/2026 academic year. The population in this study were all fifth-grade students of SD Inpres 3 Talise. In this study, the sample used consisted of two classes, namely class VA as the control class and class VB as the experimental class in the even semester of the 2025/2026 academic year. Each class consists of 23 students.

Table 2. List of the Number of Control Class and Experimental Class Students

No.	Class	Number of Students	Description
1	Class VA	23	Control Class
2	Class VB	23	Experimental Class
	Total Number	46	

The sampling technique used in this research is purposive sampling, which is a sampling technique with certain considerations. The data collection technique used in this study is a test. The test was carried out twice, namely a pretest before treatment and a posttest after treatment. The research instrument used was a learning outcome test in the form of multiple-choice questions totaling 7 items covering cognitive, affective, and psychomotor domains. Before being used, the instrument's validity and reliability were tested first.

Table 3. Learning Outcomes Instrument Grid

No.	Domain	Indicator	Number of Questions
1	Cognitive	Knowledge and understanding of PAI material	4
2	Affective	Attitudes and values in everyday life	2
3	Psychomotor	Application of worship practices and Islamic behavior	1
No.	Domain	Indicator	
		Total	7

Descriptive analysis is used to describe the research data, including the average value (mean), minimum value, maximum value, and standard deviation from the pretest and posttest results of the control class and experimental class students. Inferential analysis is used to test the research hypothesis. Inferential analysis techniques include normality tests, hypothesis testing (Mann-Whitney U), and Wilcoxon tests conducted with the help of the SPSS program. Because the normality test results show that the data is not normally distributed, hypothesis testing is

carried out using a nonparametric statistical test. The Mann-Whitney U test is used to compare learning outcomes between the control class and the experimental class (posttest).

Results and Discussion

Validity Test

The test instrument in the form of 15 multiple-choice questions has been tested on 25 respondents (r table value = 0,396 at 5% significance). The validity test was carried out using the help of the SPSS program with the Product Moment correlation formula. The question item is declared valid if the r count > r table (0.396). The results of the research instrument validity test can be seen in the following table:

Table 4. Instrument Validity Test Results

Question No	Pearson Correlation	Sig. Value	r Table	Conclusion
Question 1	0,167	0,425	0,396	Invalid
Question 2	0,183	0,382	0,396	Invalid
Question 3	0,503	0,010	0,396	Valid
Question 4	0,087	0,678	0,396	Invalid
Question 5	0,458	0,021	0,396	Valid
Question 6	0,462	0,020	0,396	Valid
Question 7	0,249	0,229	0,396	Invalid
Question 8	0,264	0,203	0,396	Invalid
Question 9	0,492	0,012	0,396	Valid
Question 10	0,411	0,041	0,396	Valid
Question 11	0,586	0,002	0,396	Valid
Question 12	0,678	0,001	0,396	Valid
Question 13	0,087	0,678	0,396	Invalid
Question 14	0,070	0,740	0,396	Invalid
Question 15	0,087	-	0,396	Invalid

Based on the results of the validity test in the table above, out of the 15 questions tested, there were 7 valid questions and 8 invalid questions (questions 1, 2, 4, 7, 8, 13, 14, 15). The invalid questions were removed because they were considered unable to optimally measure students' abilities. Thus, the instruments used in this study amounted to 7 questions.

Reliability Test

The reliability test was carried out after the test instrument was validated, namely on the 7 valid question items. The reliability test used the Cronbach's Alpha formula with the help of the SPSS program. The results of the reliability test are presented in the following table:

Table 5. Instrument Reliability Test Results

Reliability Statistics	
Cronbach's Alpha	N of Items
0,713	7

Based on the reliability test, a Cronbach's Alpha value of 0,741 was obtained which is included in the high category (0,61–0,80). Thus, the research instrument was declared reliable and feasible to be used in the study.

Descriptive Analysis

Descriptive analysis was carried out to describe student learning outcomes data before and after treatment in the control class and experimental class. The results of the descriptive analysis using the SPSS program are presented in the following table:

Table 6. Descriptive Analysis Results

Statistics	Pretest Control	Posttest Control	Pretest Experiment	Posttest Experiment
N	23	23	23	23
Mean	52,61	73,28	52,61	81,77
Minimum Value	40	73	33	100
Maximum Value	40	73	33	100
Std. Deviation	15,027	9,27	17,965	8,46

Based on the results of the descriptive analysis, it is known that the number of samples for each class is 23 students. The average pretest score of the control class is 52,61 and the experimental class is 52,61, indicating that the initial abilities of the two classes are relatively equal. After the treatment, the average posttest score of the control class increased to 73,28, while the experimental class increased more significantly to 81,77. This indicates that the application of the CTL learning model has a greater impact on improving student learning outcomes compared to conventional learning.

Normality Test

The normality test was conducted to determine whether the data is normally distributed or not. The test used the Shapiro-Wilk test with the help of the SPSS program at a significance level of $\alpha = 0,05$. Decision making criteria: if Sig. > 0,05 then the data is normally distributed; if Sig. < 0,05 then the data is not normally distributed.

Table 7. Normality Test Results (Tests of Normality)

Class	Kolmogorov-Smirnov Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
Pretest A (Control)	0,170	23	0,084	0,870	23	0,006
Posttest A (Control)	0,195	23	0,023	0,925	23	0,087
Pretest B (Experiment)	0,269	23	<0,001	0,872	23	0,007
Class	Kolmogorov-Smirnov Statistic	df	Sig.	Shapiro-Wilk Statistic	df	Sig.
Posttest B (Experiment)	0,243	23	0,001	0,847	23	0,002

Description: a. Lilliefors Significance Correction. Based on the results of the normality test using the Shapiro-Wilk method, the following results were obtained: (1) Pretest of the control class: Sig. value = 0.006 < 0,05; (2) Posttest of the control class: Sig. value = 0.087 > 0,05; (3) Pretest of the experimental class: Sig. value = 0.007 < 0,05; (4) Posttest of the experimental class: Sig. value = 0.002 < 0,05. Because most of the data have a significance value smaller than 0,05, it can be concluded that the research data is not fully normally distributed. Therefore, hypothesis testing was continued using a nonparametric test, namely the Mann-Whitney U test.

Hypothesis Testing Mann-Whitney U Test

The Mann-Whitney U test is used to compare differences in learning outcomes (posttest) between the control class and the experimental class. The results of the Mann-Whitney U test are presented in the following table:

Table 8. Mann-Whitney U Test Results

Uji Mann-Whitney U	Value
Mann-Whitney U	118.000
Wilcoxon W	394.000
Z	-3.512
Asymp. Sig. (2-tailed)	0.000

Based on the results of the Mann-Whitney U test, a significance value (Asymp. Sig. 2-tailed) of 0,000 < 0,05 was obtained. Thus, H_0 is rejected and H_a is accepted, which means there is a significant difference between the

posttest learning outcomes of the control class and the experimental class. This proves that the application of the CTL learning model has a significant effect on student learning outcomes in the PAI subject of class V SD Inpres 3 Talise.

Discussion

This research is a quantitative study with a quasi-experimental design conducted at SD Inpres 3 Talise, with the aim of finding out whether or not there is an effect of using the Contextual Teaching and Learning (CTL) learning model on student learning outcomes in the Islamic Religious Education (PAI) subject for class V. This study used two classes as samples, namely class VA as the control class and class VB as the experimental class, each totaling 23 students.

Before the research was carried out, the instrument was first tested for its validity and reliability. The instrument used was in the form of multiple-choice questions totaling 15 items. Based on the results of the validity test, 7 valid question items and 8 invalid question items were obtained. The reliability test yielded a Cronbach's Alpha value of 0.713, which is in the high category. Thus, the instrument is declared feasible for use in the study.

The results of the descriptive analysis showed that the average pretest score of the control class was 52.61 and the experimental class was 52.61, indicating that the initial abilities of both classes were equal. After being given treatment, the average posttest score of the experimental class increased to 81.77, while the control class only increased to 73.28. This difference in improvement indicates that the application of the CTL model has a greater influence on student learning outcomes compared to conventional learning.

Based on the results of the normality test using the Shapiro-Wilk method, most of the data had a significance value below 0,05, so the data was declared not normally distributed. Therefore, hypothesis testing used a nonparametric test in the form of the Mann-Whitney U test. The results of the Mann-Whitney U test obtained a significance value of $0.000 < 0,05$, which means there is a significant difference between the posttest results of the control class and the experimental class.

The improvement in student learning outcomes in the experimental class occurred because the CTL model associates PAI material with students' experiences and real lives. Through the seven main components of CTL, namely constructivism, questioning, inquiry, learning community, modeling, reflection, and authentic assessment, students become more active, involved, and motivated in the learning process. Students do not only receive material passively, but also actively build knowledge and relate it to real-life situations, making learning more meaningful.

The results of this study are in line with the research of Oktaria, R., et al. (2024) which shows that the use of the CTL model in PAI learning can significantly improve student learning outcomes, because students feel the material learned has a direct relationship with their experiences and lives. A similar thing was also stated by Putri, N. N. E., & Subando, J. (2025) who stated that the CTL model is able to significantly improve student learning outcomes.

Thus, it can be concluded that there is a significant effect of the use of the CTL learning model on student learning outcomes in the PAI subject of class V SD Inpres 3 Talise. The CTL model has proven to be effective in creating active, contextual, and meaningful learning, so that it can be used as an alternative innovative learning model in elementary schools.

CONCLUSION

Based on the research results and discussions that have been carried out, the following conclusions can be drawn: There is a significant effect of the use of the Contextual Teaching and Learning (CTL) learning model on student learning outcomes in the subject of Islamic Religious Education (PAI) for class V of SD Inpres 3 Talise. This is evidenced through the results of the Mann-Whitney U test which shows a significance value of $0,000 < 0,05$, so that H_0 is rejected and H_a is accepted. The use of the CTL model is able to create a learning atmosphere that is more active,

contextual, and meaningful for students, because PAI material is directly linked to their experiences and real lives. This encourages students to be more involved in the learning process, so that their understanding and learning outcomes increase significantly.

Based on the results of this study, there are several suggestions that the researcher would like to convey, among others: For Teachers, it is expected that they can use the CTL learning model as an alternative in the learning process, specifically in the PAI subject, because it is proven to be able to increase student interest and learning outcomes. Teachers can maximize the seven components of CTL so that the learning process becomes more meaningful. For Students, it is expected that they can be more active and motivated in participating in learning, especially when the teacher applies an innovative learning model like CTL, so that the learning outcomes obtained can be more optimal. For Schools, it is expected that they can support the use of innovative and contextual learning models such as CTL by providing adequate facilities and infrastructure to support a quality learning process. For Future Researchers, it is expected that they can develop this research by using a more complex research design, a larger sample, or on different subjects and education levels, so that broader and deeper results are obtained.

REFERENCES

- Aziz, A., Sofwan, A., & Hartati, S. (2020). Strategi Pembelajaran PAI dalam Membentuk Karakter Peserta Didik. *Jurnal Ilmu Pendidikan dan Keislaman*, 8(2), 112–125.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA: SAGE Publications.
- Dewey, J. (1918). *Democracy and Education: An Introduction to the Philosophy of Education*. New York: Macmillan Company.
- Johnson, E. B. (2002). *Contextual Teaching and Learning: What It Is and Why It's Here to Stay*. Thousand Oaks, CA: Corwin Press.
- Khaf Shah, K., dkk. (2025). Inovasi Penggunaan Model Contextual Teaching and Learning (CTL) dalam Pembelajaran Agama Islam di Sekolah Dasar. *Jurnal Pendidikan Islam dan Ilmu Sosial*, 12(1), 45–62.
- Majid, A. (2012). *Belajar dan Pembelajaran Pendidikan Agama Islam*. Bandung: Remaja Rosdakarya.
- Mashudi, M., & Fatimah, F. (2020). *Model Pembelajaran Kontekstual: Konsep, Langkah, dan Penerapan*. Jakarta: Bumi Aksara.
- Novi, N., & Subando, J. (2025). Efektivitas Model Pembelajaran Contextual Teaching and Learning dalam Peningkatan Hasil Belajar Siswa PAI SD. *Jurnal Ilmiah Pendidikan Dasar*, 11(1), 29–44.
- Oktaria, R., dkk. (2024). Pengaruh Model CTL Terhadap Hasil Belajar PAI Siswa Sekolah Dasar. *Jurnal Pendidikan dan Pembelajaran*, 13(2), 145–158.
- Purnomo, A., dkk. (2022). *Desain Model Pembelajaran: Konsep dan Aplikasi dalam Pendidikan*. Yogyakarta: Deepublish.
- Putri, N. N. E., & Subando, J. (2025). Peningkatan Hasil Belajar Melalui Pendekatan Kontekstual pada Mata Pelajaran PAI. *Jurnal Pendidikan Dasar*, 10(1), 67–80.
- Reni, R. (2024). Pengaruh Penerapan Model Contextual Teaching and Learning Terhadap Hasil Belajar Siswa PAI. *Jurnal Penelitian Pendidikan*, 18(1), 112–126.
- Sudjana, N. (2017). *Penilaian Hasil Proses Belajar Mengajar*. Bandung: PT Remaja Rosdakarya.
- Sukardi, S., & Widodo, W. (2023). Inovasi Pembelajaran Berbasis Konteks dalam Pendidikan Agama Islam. *Jurnal Keislaman dan Pendidikan*, 9(2), 56–70.
- Undang-Undang Republik Indonesia Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional. Jakarta: Sekretariat Negara Republik Indonesia.