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The effect of role-play learning on students' learning outcomes in Catholic religious education

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Abstract

Catholic Religious Education requires learning experiences that help students understand religious values and relate them to everyday situations, yet conventional classroom instruction may provide limited opportunities for active student participation. This study examined the effect of the Role Play learning model on students' learning outcomes in Catholic Religious Education, particularly in learning about the Good Samaritan. A quasi-experimental study using a non-equivalent control group design was conducted with 30 eighth-grade students at a junior high school in Wewewa Selatan, Indonesia. 15 students participated in Role-Play-Based learning as the experimental group, while 15 students received conventional instruction as the control group. Data were collected through multiple-choice achievement tests administered before and after the intervention. The data were analyzed using normality and homogeneity tests, followed by paired-samples and independent-samples t-tests. The findings showed that students who participated in Role Play-based learning achieved greater improvement in learning outcomes than those receiving conventional instruction, with the experimental group's posttest performance significantly exceeding that of the control group. These findings suggest that Role Play can provide a more active, experiential learning environment for Catholic Religious Education, particularly when instructional content includes narrative and moral values. The study contributes empirical evidence supporting the use of structured role-based activities as an alternative strategy for improving students' learning outcomes at the junior high school level.

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1. Introduction

Education plays a vital role in shaping students' intellectual abilities, skills, and moral and spiritual development (Subhaktiyasa et al., 2024). In Catholic Religious Education, the learning process focuses on understanding and internalizing the teachings of the faith so they can be applied in daily life. Thus, learning success must be assessed by students' ability to understand the material and connect it to their real-life experiences and behaviors.

Learning outcomes serve as a key indicator for assessing the achievement of learning objectives through learning assessment (Busnawir et al., 2025; Widayanthi et al., 2024). Sudjana (2010) defines learning outcomes as the competencies students acquire after participating in the learning process, reflecting changes resulting from their learning experiences. Learning outcomes from the teacher's perspective also

serve as an indicator of the achievement of planned learning objectives (Dimyati & Mudjiono, 1999). The achievement of learning outcomes is influenced by various factors originating from within and outside the student. Slameto (2010) categorizes these factors into internal factors—such as motivation, interest, physical condition, and readiness to learn—and external factors, which include the family environment, school, and the learning process.

One external factor directly related to students' learning experiences is the instructional model teachers use. Monotonous and overly teacher-centered instruction can limit student participation and reduce their opportunities to actively engage in the learning process. Sudjana (2010) emphasizes that the use of an instructional model lacking variety can affect students' motivation to learn. Therefore, the selection of teaching models must take into account students' characteristics and the subject matter being taught (Djamarah & Zain, 2010).

This requirement is particularly relevant in Catholic Religious Education, as its curriculum encompasses dimensions of knowledge, attitudes, and values that students must internalize. Winkel (2009) explains religious education within a framework that encompasses the formation of attitudes and values; thus, learning experiences that encourage students to interact with concrete situations are essential. Learning models that actively engage students are also consistent with Trianto's (2010) view that effective learning must provide space for students to interact, collaborate, think critically, and build understanding through their involvement in the learning process.

One model relevant to these characteristics is role-play. This model places students in a learning situation where they portray characters or events related to the material being studied. According to Uno (2012), role-play can encourage students to express their feelings and build awareness through engagement in situations that resemble real-life issues. Djamarah (2010) explains that role-play brings real-world roles into the classroom, and these experiences can then be used as material for reflection and evaluation.

Student engagement in role-play can also support understanding of material related to moral and social values. Trianto (2010) states that using this model can help students understand the material through active participation, thereby improving learning outcomes. The learning experience in Catholic Religious Education through role-playing can provide students with the opportunity to understand the learning message through situations that are more concrete and relevant to their lives.

Several previous studies provide empirical support for the use of role-play in Catholic Religious Education. Rahayu et al. (2026), for example, examined student learning outcomes in Social Studies for eighth-grade students at Bangunrejo Public Junior High School. Ibrahim et al. (2025) also reported significant results from applying the role-play learning model to address low student engagement with Pancasila values at SMPN 226 in Jakarta. Findings reported by Simamora et al. (2023) also demonstrate the impact of the role-play model on student engagement in Christian Religious Education and Character Education among eighth-grade students at Sipoholon State Junior High School 2. However, these studies show a trend toward positive results, with evidence drawn from diverse school contexts and learning characteristics. A study was conducted at SMP Negeri 1 Wewewa Selatan to determine whether role-play affects the learning outcomes of eighth-grade students at that school.

This study focuses on student learning outcomes in Catholic Religious Education by comparing outcomes between a group that received instruction through role-play and a group that did not. The rationale is that student engagement in role-playing, discussion, experience evaluation, and connecting the material to real-life situations can provide a more active learning experience. Therefore, this study aims to analyze the effect of role-play learning on student learning outcomes in Catholic Religious Education at Public Junior High School No. 1 Wewewa Selatan. This study is expected to provide empirical evidence on the use of this learning model in the context of Catholic Religious Education and to offer guidance to teachers on selecting learning approaches that enhance student engagement and learning outcomes.

2. Method

2.1. Research Approach and Design

This study employed a quantitative, quasi-experimental design. The study examined the effect of the Role Play learning model on student learning outcomes by comparing a treatment group with a conventional instruction group. Both groups were taught the same material; the difference in treatment lay in the learning model used (Sugiyono, 2019). The research design included three stages of measurement and treatment: a pretest, the treatment phase, and a posttest. The experimental group took a pretest before learning with the Role-Play model, then underwent the treatment, and concluded with a posttest. The control

group went through the same measurement stages but received instruction through conventional methods, including lectures, discussions, and assignments. The study was conducted at Public Junior High School No. 1 Wewewa Selatan at the beginning of the odd semester of the 2025/2026 academic year and was aligned with the school's course schedule. The study population comprised all eighth-grade students during that academic year. All members of the population were included as research participants through saturated sampling (Subhaktiyasa, 2024). The sample consisted of 30 students: 15 from Class VIII A and 15 from Class VIII B. Class VIII A served as the experimental group and received instruction using the role-play model, while Class VIII B served as the control group and received conventional instruction.

2.2 Instruments and Data Collection

Research data were collected using tests and documentation. Tests were the primary instrument for measuring students' learning outcomes in Catholic Religion, while documentation supported the research implementation. The test instrument consisted of multiple-choice questions based on the topics "God's Love for Humanity" and "The Parable of the Good Samaritan." These assessments focused on students' understanding of the Catholic Religion curriculum. The tests were administered in two stages. A pretest was conducted before the intervention to assess participants' initial abilities in each group, and a posttest was administered after the intervention to assess learning outcomes. This measurement approach followed the characteristics of the Non-Equivalent Control Group Design used in the study (Sugiyono, 2019). The documentation includes photographs of the research implementation, instructional materials, lesson plans (RPP), and test item blueprints. These documents serve as supporting evidence for the implementation of instruction and the school's data collection process. Before use, the research materials underwent content validation. The validated materials include the lesson plans, multiple-choice test questions, and instructional materials. An expert faculty member with expertise in Catholic Religious Education and instructional design conducted the validation. The evaluation covered the format and content of the lesson plans, language usage, time allocation, the content and language of the test questions, the presentation of the assessment instruments, and the alignment of the materials with the instructional objectives. The assessment used a four-point Likert scale (Subhaktiyasa, 2024b).

2.3 Data Analysis

The learning outcome data were analyzed quantitatively using SPSS version 16.0. The analysis phase consisted of prerequisite tests and hypothesis testing (Sugiyono, 2019). A normality test was conducted using the Shapiro-Wilk test to assess the data distribution before parametric testing. The significance level used was 0.05. The data were considered to meet the assumption of normality if the p-value was greater than 0.05. Conversely, a p-value less than 0.05 indicated that the data were not normally distributed (Prasetyo, 2013). Homogeneity of variances across groups was then examined using the Test of Homogeneity of Variances at the 0.05 significance level. A significance value greater than 0.05 is interpreted as evidence that group variances are homogeneous, whereas a value less than 0.05 indicates a difference in variances among groups. Hypothesis testing was conducted using the Paired-Samples t-Test and the Independent-Samples t-Test. The Paired-Samples t-Test was used to compare pretest and posttest scores within the experimental group. Furthermore, the Independent-Samples t-test was used to compare posttest scores between the experimental and control groups. The selection of these two analyses followed the research data structure, which consisted of paired measurements within a single group and independent measurements between groups. Statistical decisions were made at a significance level of $\alpha = 0.05$.

3. Results and Discussion

3.1 Results

Learning outcome data were collected via a multiple-choice test comprising 20 items on the Parable of the Good Samaritan. A total of 30 students participated in the study, with 15 students in the experimental group and 15 students in the control group. Descriptive statistics for the pretest and posttest scores are presented in Table 1.

Table 1. Descriptive Statistics of Students' Learning Outcomes

Group	Test	N	Minimum	Maximum	Mean	SD
Experimental	Pretest	15	30	75	51.00	14.041
Experimental	Posttest	15	65	100	83.33	11.286
Control	Pretest	15	30	70	46.67	10.465
Control	Posttest	15	40	90	64.00	13.120

Table 1 shows that the experimental group had a mean pretest score of 51.00, with a minimum score of 30 and a maximum of 75. After the intervention, the experimental group's mean posttest score was 83.33, with a minimum and maximum score of 65 and 100, respectively. In the control group, the average score increased from 46.67 on the pretest to 64.00 on the posttest, with posttest scores ranging from 40 to 90. The average change in the experimental group was 32.33 points, while the control group experienced a change of 17.33 points. The difference in posttest means between the two groups was 19.33 points, with the experimental group's mean higher than the control group's. The posttest standard deviation was recorded as 11.286 for the experimental group and 13.120 for the control group. Before hypothesis testing, the data were examined for normality and homogeneity. The normality test was used to assess the distributions of pretest and posttest scores, and the homogeneity test was used to assess the equality of variances between the experimental and control groups. Data normality was assessed using the Shapiro-Wilk test, as each group comprised 15 students. The test results are presented in Table 2. Meanwhile, the equality of variances between the experimental and control groups was tested using Levene's test on the posttest data; the results are presented in Table 3.

Table 2. Shapiro-Wilk Test of Normality

Data	Statistic	df	Sig.
Experimental pretest	0.929	15	0.265
Experimental posttest	0.923	15	0.217
Control pretest	0.946	15	0.471
Control posttest	0.988	15	0.998

Table 3. Levene's Test of Homogeneity of Variance

Test	Levene Statistic	df1	df2	Sig.
Based on Mean	0.189	1	28	0.667
Based on Median	0.354	1	28	0.556
Based on Median with adjusted df	0.354	1	28	0.556
Based on trimmed mean	0.186	1	28	0.669

Table 3 shows that all Shapiro-Wilk test p-values were above 0.05. The significance values for the pretest and posttest in the experimental group were 0.265 and 0.217, respectively. In the control group, the significance values for the pretest and posttest were 0.471 and 0.998, respectively. Furthermore, Table 3 shows a significance value of 0.667 for the test based on the mean. The significance values based on the median, the median with adjusted df, and the trimmed mean were 0.556, 0.556, and 0.669, respectively. All of these values were above the 0.05 significance level. After the assumption tests were conducted, the analysis continued with a test of differences in learning scores. The results of a paired-samples t-test are presented in Table 4. Meanwhile, the results of an independent-samples t-test are presented in Table 5.

Table 4. Paired-Samples t-Test for the Experimental Group

Comparison	Mean Difference	SD	95% CI Lower	95% CI Upper	t	df	Sig. (2-tailed)
Pretest − Posttest	−32.333	12.373	−39.185	−25.481	−10.121	14	< .001

Table 5. Independent-Samples t-Test of Posttest Scores

Variance assumption	t	df	Sig. (2-tailed)	95% CI Lower	95% CI Upper
Equal variances assumed	4.326	28	.001	10.180	28.487
Equal variances not assumed	4.326	27.388	.001	10.171	28.496

Table 4 shows an average difference between pretest and posttest scores of -32.333. The t-statistic is -10.121 with 14 degrees of freedom (df). The two-tailed p-value is 0.000, which is below the significance level of 0.05. Furthermore, Table 5 shows a t-value of 4.326 with 28 degrees of freedom under the assumption of equal variances. The two-tailed significance value is 0.001, while the difference in posttest means between the experimental and control groups is 19.333 points. The 95% confidence interval for the difference in means ranges from 10.180 to 28.487 points.

3.2 Discussion

The results of the study indicate that the role-play learning model positively contributes to improving student learning outcomes in Catholic Religious Education. This finding is evident from the difference in achievement between the class that received role-play instruction and the class that followed conventional instruction. After the intervention, students in the experimental class achieved higher average learning outcomes than those in the control class. This finding confirms the research objective that role-play is associated with improved student learning outcomes in the Parable of the Good Samaritan material.

This improvement is evident in the role-play's characteristics as a teaching method that places students in a more active learning experience. The material on the Good Samaritan conveys a moral message about compassion, love for others, and a willingness to help. When this material is presented through role-playing, students encounter a more concrete situation than simply receiving a verbal explanation from the teacher. Students need to understand the characters, their actions, and the relationships between them before performing their roles. This process allows students to connect the story's content with actions they can understand through their classroom learning experiences.

These findings align with the views of Cavinato et al. (2021) and Qureshi et al. (2021) that effective learning must provide opportunities for active student engagement, interaction, collaboration, and the experience of discovering understanding. Koul, S., & Jasrotia, S. (2021) and Sagmeister et al. (2021) also identify role-playing as a model that provides students with the opportunity to explore a situation through role enactment. In Catholic Religious Education, this approach is crucial because the curriculum extends beyond the mere mastery of religious information. An understanding of moral values must take on a more concrete form so that students can connect their knowledge to their attitudes and actions. This perspective is also consistent with Arifianto et al. (2021) and Floroaia (2021), who describe religious education as a process related to knowledge, attitudes, and values. The difference in achievement between the two groups also shows that learning activities are a key factor in explaining students' outcomes. Conventional instruction still leads to improved learning outcomes, but the improvement is smaller compared to the class that used role-play. This finding suggests that delivering material through explanations, question-and-answer sessions, and assignments still plays a role in learning, but students' direct involvement in the learning process can provide a more meaningful learning experience (Mason et al., 2021; Stockard, 2021). This finding is consistent with Tien's (2025) research, which shows that role-playing can increase student engagement because the learning activity requires direct participation and interaction. At the same time, Tien notes that the effectiveness of role-playing depends on student readiness and how the activity is designed.

This consistency is also supported by research in other fields of education. A quasi-experimental study in higher education found that students who received role-playing-based instruction achieved better academic outcomes and higher graduation rates than those who participated in traditional instruction (Fallah-Karimi et al., 2025). A meta-analysis on the use of creative drama in learning also indicates an impact on students' academic achievement, suggesting that role-playing-based learning approaches have a broader empirical foundation than that of a single subject (Talan, 2021). These findings reinforce the hypothesis that the benefits of role-playing are related to its active, experience-based nature rather than solely to the specific content of Catholic Religious Education.

The results of this study reinforce the role of role-play as a form of experiential learning. Students have the opportunity to experience learning situations through action, interaction, and reflection on the roles they play. Role-playing can support cognitive, affective, and self-regulation outcomes, especially when activities are structured and incorporated as an integral part of learning (Chen et al., 2021; Tien et al., 2025; Zeng et al., 2025). This means that the improvement in learning outcomes found in this study can be understood as a consequence of changes in how students interact with the material. Material that was previously received as information is now learned through experiences that require understanding, role-taking, communication, and responses to learning situations. Another important aspect lies in the material

used in the study. The Parable of the Good Samaritan has a relatively clear narrative structure and characters, making it suitable for adaptation into a role-playing scenario. Students can understand the plot through the characters' actions, their relationships, and the story's conflicts. These conditions make role-playing more than just an activity to make learning engaging. When role-playing scenarios are designed around clear learning objectives, this activity can serve as a tool to help students understand the material's moral lessons.

However, the effectiveness of role-playing does not automatically follow from its use. Activity design, the level of structure, student readiness, and the duration of the activity all contribute to the quality of learning outcomes (Teerawongpairoj et al., 2024). Role-playing activities tend to yield better results when they are structured and integrated with learning objectives. Sun et al. (2022) found that some students may benefit less if they are unprepared or have difficulty following the role-playing format. These findings provide important insights for Catholic religious education teachers: the success of role-playing requires clear role assignments, pre-activity guidance, age-appropriate scenarios, and post-activity reflection.

The findings provide insight into how teachers select teaching strategies based on the nature of the material. Role-playing can be used especially when the material involves characters, conflicts, moral values, or social situations that can be translated into action. For topics such as love for others, teachers can develop simple scenarios relevant to students' lives, then guide students to discuss the meaning of the characters' actions after the role-play. This reflection stage is crucial because the learning objectives of Catholic Religious Education go beyond merely developing the ability to answer questions; rather, they aim to help students understand the values being taught and connect them to their daily lives. Furthermore, the research findings provide additional evidence that role-playing can serve as an alternative teaching method in Catholic Religious Education at the junior high school level. Its contribution lies in the empirical testing using an experimental class and a control class in a public school setting in South Wewewa, thereby expanding the evidence that previously came largely from different school contexts and regions. These contextual differences are important because the effectiveness of a learning model can be influenced by student characteristics, classroom culture, content, and how teachers implement it.

4. Conclusion

The study shows that the role-play learning model positively affects student learning outcomes in Catholic Religious Education, particularly in the lesson on the Parable of the Good Samaritan. Students who participated in role-play learning demonstrated significantly higher learning outcomes than those in conventional learning. These findings support the study's objective of testing the effectiveness of role-play in improving learning outcomes. These findings provide empirical evidence on the application of role-play-based learning in Catholic Religious Education at the junior high school level, particularly for material addressing moral values and social life. However, the study has limitations: it employed a non-equivalent control group design, involved 30 students from two classes at a single school, and focused on a single topic, measuring learning outcomes through multiple-choice tests. Future research is recommended to involve a larger sample and schools with diverse characteristics, and to use multiple Catholic Religious Education topics. Additionally, it is necessary to combine learning outcome tests with measurements of engagement, attitudes, moral reflection, and learning retention to gain a more comprehensive understanding of the long-term benefits of role-playing.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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