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THE EFFECT OF THE PROBLEM BASED LEARNING-BASED ROLE PLAYING LEARNING MODEL ON INTEREST AND STUDENT LEARNING MOTIVATION CLASS V SDN

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ABSTRACT

This research is motivated by the low learning interest and motivation of students at SDN 14 Masalima, as indicated by their limited participation in learning activities, passive behavior, and low enthusiasm toward classroom tasks. These conditions are influenced by learning fatigue, difficulties in understanding the material, and the use of conventional teaching methods that have not been able to activate students optimally. Therefore, an innovative learning model that is interactive, contextual, and capable of increasing student engagement is required. The Role Playing model combined with Problem Based Learning (PBL) is considered effective because it provides direct learning experiences through role assignments while encouraging students to solve real problems. This study aims to determine the effect of the Role Playing learning model based on PBL on the learning interest and motivation of fifth-grade students at SDN 14 Masalima. The research employed a quantitative method with a one-group pretest–posttest design involving 24 students as the research sample. Data were collected through learning interest and motivation questionnaires as well as observation sheets during the learning process. The results show that the implementation of the Role Playing model based on PBL has a significant effect on increasing students' learning interest and motivation. Students became more active, enthusiastic, and demonstrated greater engagement throughout the learning activities. Therefore, this model is a viable alternative to improve the quality of teaching and learning processes in elementary schools.

1. INTRODUCTION

Education is a crucial aspect of human life. Through education, people can develop their potential and achieve prosperity. Education serves not only to transfer knowledge but also to develop the skills, attitudes, and values necessary for effective participation in society. Therefore, the quality of education is crucial in shaping competent individuals who contribute positively to society. One of the main challenges in education is increasing students' interest and motivation in learning. High interest and motivation in learning will encourage students to be more active and participatory in the learning process, thereby achieving optimal learning outcomes. (Alannasir & Hamzah, 2024) . To achieve this goal, an effective and innovative learning model is essential. Good quality learning will produce good results. Improving the quality of learning begins with the smallest things, such as optimal classroom implementation, resulting in intelligent students who can solve any problems that arise. Education is like a platform for developing intelligent citizens (Dewantara & Nurgiansah, 2021) . Education is also an important means to improve the quality of human resources (HR) in ensuring the progress of a nation and state. Improved human resource quality can be realized in facing today's global competition (Alannasir & Selvi, 2020) .

Educational experts explain that there are several factors that can influence learning achievement, one of which is learning motivation. Learning motivation refers to the overall influence within a student that generates learning activities, ensures the continuity of learning activities, and provides direction for those learning activities, so that the student's desired goals can be achieved. The explanation above shows that learning motivation is a very important force and must be present within a student to activate learning activities, for the sake of the continuity of learning activities, and to achieve the desired goals (learning achievement). (Alannasir, 2023) .

Of course, this happens because of several factors from students that cause a lack of motivation to learn, including, firstly, boredom in learning, students often experience this, they experience a negative experience called boredom in learning, which in psychology is commonly called learning. plateau or plateau only. If experienced by a student, this saturation event can cause the student to waste their learning. Second, learning difficulties can be defined as a student's difficulty in receiving or absorbing the information provided. These learning difficulties can be identified through symptoms such as deviant behavior or declining learning outcomes. However, learning difficulties can also be evidenced by the emergence of student misbehavior, such as a tendency to shout. in class, teasing friends, fighting, often not going to school, and often running away or skipping school (Alifa et al., 2024) .

The two factors above are common in students, causing them to experience a lack of or weak motivation to learn. Weak and inconsistent motivation will lead to a lack of learning effort, which ultimately impacts student learning outcomes. One learning model considered capable of increasing student interest and motivation in learning is the Role - Playing learning model. Problem Based Playing Learning (PBL). Role learning model Role-playing provides students with the opportunity to assume specific roles in real-life situations. This method allows students to actively participate in the learning process, develop communication skills, and understand others' perspectives. Meanwhile, PBL emphasizes problem-solving relevant to the subject matter. (Alannasir et al., 2023) . In PBL, students are faced with complex real-world problems and are expected to find solutions through research and collaboration. The combination of these two models is expected to create a more engaging and challenging learning environment, thus increasing student motivation and interest in learning. In reality, student interest and motivation in learning in many elementary schools are still low. This can be seen from the lack of student

participation in learning activities, low student attendance, and unsatisfactory learning outcomes. Based on initial observations at SDN 14 Masalima , it was found that most students lacked enthusiasm in participating in the learning process. Students tended to be passive and less involved in teaching and learning activities.

All students have the right and freedom to participate in class during the learning process. Furthermore, teachers play a crucial role in the learning process, as they are the ones who directly educate each student (Alannasir et al., 2023) . *Problem- Based Problem-Based Learning (* PBL) emphasizes problem-solving relevant to the subject matter. Sari & Hardini (2020) in their journal showed that there was an influence of the use of the *Problem- Based Learning model. Learning* (PBL) on students' critical thinking skills, because learning by applying the Problem Based model Problem- Based Learning (PBL) can train students to learn independently and think critically. The combination of these two models is expected to create a more engaging and challenging learning environment. Playing can provide context and practical relevance to problems encountered in PBL, while PBL provides complex and authentic problems that can be understood more deeply through the roles played by students (Chin & Chia, 2006) . Research by Hidayati & Wagiran (2020) and Nasution (2021) shows that this combination can significantly improve student learning outcomes.

where students experience obstacles in their learning process. According to Septy Nurfadhillah et al. (2022) , learning difficulties are situations where students experience obstacles or difficulties that prevent them from learning effectively and hinder their learning process. Learning difficulties can occur simultaneously with other obstacles (such as sensory disorders , social disorders, and emotional disorders) and can also stem from environmental influences such as cultural differences or inappropriate learning processes (Rafendi et al., 2020).

Therefore, innovation in learning methods is needed to increase students' interest and motivation in learning. Effective education requires learning models that can increase student interest and motivation. Role Models Problem- Based Playing Role-Playing Learning (PBL) has been developed to achieve this. Several studies have shown that this model can significantly improve student learning outcomes (Hidayati & Wagiran, 2020; Nasution, 2021) . Although much research has been conducted on the Role- Playing Learning model, Playing and Problem Based Research combining these two models in the context of elementary education (PBL) is still limited. Previous research has focused on the application of each model separately and in higher education contexts. The lack of research combining these two models at the elementary school level indicates a gap that needs to be filled.

Initial observations at SDN 14 Masalima showed that some students lacked enthusiasm in participating in the learning process. Students tended to be passive and less involved in teaching and learning activities. SDN 14 Masalima was chosen as the research location to examine the effect of implementing this learning model on the learning interests and motivation of fifth-grade students. Therefore, this research is expected to make a significant contribution to the development of effective learning models. This study aims to fill the research gap by combining the Role Model with the Role Model. Playing and PBL in the context of elementary education. Although much research has been conducted on the application of each model separately, there is little research combining the two models at the elementary school level. This research is expected to make a significant contribution to the development of effective and innovative learning models.

2. METHOD

The field implementation of this study was carried out through several structured stages to ensure that the application of the Role Playing model based on Problem Based Learning (PBL) proceeded systematically and effectively. These stages consisted of the pre-research phase, pretest administration, implementation of the learning model, classroom observations, and the posttest as the final evaluation.

a. Preparation Phase

In the initial stage, the researcher prepared the learning tools, including a lesson plan (RPP) integrated with the Role Playing and PBL learning steps. The researcher also prepared the research instruments, namely the learning interest questionnaire, learning motivation questionnaire, and observation sheets. All instruments were validated through expert judgment to ensure content accuracy and clarity of indicators.

b. Pretest Administration

Before the treatment was conducted, the researcher administered a pretest using both questionnaires (interest and motivation) to measure the students' baseline conditions. The pretest was carried out in Grade V of SDN 14 Masalima and supervised directly by both the researcher and the classroom teacher to ensure that the collected data were accurate and objective.

c. Implementation of the Role Playing–Based PBL Model

The core phase of the research was implemented through several learning sessions. The steps were as follows:

1. Problem Presentation

The teacher presented a contextual and authentic problem relevant to the learning material. The problem required students to analyze and understand the situation presented.

2. Role Assignment

Students were divided into several groups and assigned different roles, such as police officer, judge, prosecutor, offender, witness, or other characters based on the scenario. Students studied their respective duties and responsibilities.

3. Group Discussion and Information Gathering

Students worked in groups to analyze the problem, identify the facts, and prepare dialogue sequences as part of the problem-solving process. During this stage, the principles of PBL were applied through discussion, collaboration, and independent inquiry.

4. Role Playing Performance

Students performed the scenario in front of the class. The process was observed using structured observation sheets to evaluate student activity, motivation, engagement, social interaction, and overall participation.

5. Reflection Session

After the performance, the teacher and researcher guided the students through a reflective discussion. Students shared their experiences, newly gained understanding, and difficulties faced during the activity. This reflection aimed to reinforce comprehension and deepen learning outcomes.

d. Classroom Observation

Throughout the entire learning process, the researcher used observation sheets to document both internal and external aspects of motivation, including enthusiasm, participation, confidence, peer support, and the classroom environment. Observations were conducted systematically to ensure data accuracy and reliability.

e. Posttest Administration

After all stages of the intervention were completed, the researcher administered the posttest using the same instruments as the pretest. The posttest data were used to measure changes in students' learning interest and motivation following the Role Playing–based PBL instruction. The posttest results were then compared with the pretest results to determine the effectiveness of the learning model.

f. Data Analysis

The pretest and posttest data were analyzed using descriptive and inferential statistics. The Shapiro–Wilk normality test and Levene's homogeneity test were conducted to ensure data feasibility. Subsequently, MANOVA was used to determine the significant effect of the learning model on students' learning interest and motivation.

This research was carried out directly in the classroom setting of Grade V at SDN 14 Masalima. The implementation process followed a structured sequence comprising preparation, classroom intervention through the application of the Role Playing model integrated with Problem Based Learning (PBL), and a final evaluation stage. Each step was conducted systematically to obtain accurate data and to portray the real classroom dynamics experienced during the study. The first phase of the implementation was the preparatory stage. At this stage, the researcher conducted an initial observation in the classroom to gain a general overview of the teaching and learning conditions. The observation focused on student behavior, classroom interaction, and learning challenges, particularly the issues related to low levels of interest and motivation among students. The initial findings showed that many students tended to be passive, less enthusiastic, and less engaged in participating actively during lessons. These conditions served as a foundation for selecting the Role Playing model combined with PBL as an appropriate strategy to foster student motivation, involvement, and active learning.

During this preparatory stage, the researcher also developed all research instruments required for data collection. These instruments included student interest questionnaires, motivation questionnaires, and observation sheets for both teacher and student activities. Each instrument was designed based on theoretical indicators outlined in the literature review to ensure accurate measurement of student interest and motivation. Additionally, the researcher prepared the learning tools, such as the lesson plans (RPP), which were specifically adapted to incorporate the stages of PBL and the interactive nature of Role Playing. Coordination with the classroom teacher was also conducted to arrange schedules, clarify procedures, and ensure the implementation aligned with classroom routines and school policies.

Following the completion of the preparation stage, the research proceeded to the pretest phase. In this phase, students were given the initial questionnaire measuring their interest and motivation in learning before the intervention was applied. This pretest provided baseline data that served as a comparison to the posttest outcomes after the learning treatment. Before beginning the intervention, the researcher briefly explained the upcoming learning activities to help students feel prepared and avoid confusion during the role-playing process.

The research then entered its main stage, namely the implementation of the Role Playing model integrated with Problem Based Learning (PBL). The learning process began with the presentation of a real-life problem relevant to the lesson material. The teacher introduced the problem scenario to stimulate students' curiosity, critical thinking, and questioning. Students were encouraged to identify the core issues, express their initial understanding, and participate in a simple discussion to explore possible solutions.

After the problem was introduced, students were divided into small groups, and each group was assigned a specific character role based on the pre-designed learning scenario. Students then prepared themselves by reading, discussing, and understanding the roles they would portray. During this stage, students were guided to search for relevant information from textbooks, prior experiences, or group discussions. This information-gathering process reflects one of the core components of PBL, which emphasizes student independence, inquiry, and active engagement in constructing knowledge.

When all groups were ready, the Role Playing activity began. Students acted out their assigned roles according to the scenario while attempting to analyze the problem, communicate with their group members, and develop solutions collaboratively. This phase brought the learning atmosphere to life, as students interacted actively, expressed ideas creatively, and demonstrated communication and cooperative skills. The researcher and the classroom teacher functioned as facilitators, supervising the flow of the activity, providing guidance when necessary, and maintaining the learning focus in line with the objectives of the PBL approach.

Throughout this activity, the researcher observed student engagement using observation sheets. The aspects observed included students' enthusiasm, willingness to ask questions, ability to cooperate in groups, and overall involvement in the role-playing tasks. At the same time, the teacher's implementation of the learning stages—such as problem orientation, inquiry, role enactment, presentation, and reflection—was also monitored. These observations served as complementary data to strengthen the findings obtained from the questionnaires.

Upon completion of the role-playing activity, the class proceeded to the **r**eflection and discussion session. In this session, students shared their experiences, described the knowledge gained through the activity, and expressed their feelings about participating in the role-playing exercise. The reflection stage helped students internalize the learning outcomes, evaluate their own performance, and understand how the scenario related to the lesson content. The teacher provided reinforcement by clarifying the concepts learned and summarizing the key points of the discussion.

The final stage of the research was the posttest evaluation. After all learning activities were completed, students were once again given the interest and motivation questionnaires. The posttest aimed to determine whether significant changes occurred in students' learning interest and motivation after the implementation of the Role Playing model integrated with PBL. The results of the posttest were then analyzed and compared with the pretest results to evaluate the effectiveness of the learning model. Overall, the entire field implementation process was designed to provide a comprehensive picture of how the Role Playing model based on Problem Based Learning influenced the learning interest and motivation of Grade V students at SDN 14 Masalima. Conducting the research directly in the classroom allowed the researcher to observe authentic student behavior, track classroom dynamics, and assess the extent to which the learning model created a more interactive, engaging, and meaningful learning environment for the students.

3. RESULTS AND DISCUSSION

This study aimed to analyze the effect of the **Role Playing model integrated with Problem-Based Learning (PBL)** on **students' learning interest** and **learning motivation** in Grade V at SDN 14 Masalima. The participants consisted of 24 students, and the research was conducted over one month using a pretest–posttest design. Data were collected through questionnaires, observations, and statistical tests, including normality, homogeneity, and MANOVA.

Figure 1. *SDN 14 Masalima*

Figure 2. *Structur*

Figure 3. *Students Learn*

Figure 4. Schoolgirl Students

a. Students' Learning Interest (Results of the Learning Interest Questionnaire)

Tabel 1. Data Kusioner Minat Belajar Siswa Pre-Test dan Post-Test

Parameter	Pretest	Posttest
Rata-rata	2,45	3,40
Tertinggi	2,65	3,45
Terendah	2,50	3,30

Source: Analysis of Students' Learning Interest, 2025.

The results indicate a substantial increase in students' learning interest after the implementation of the Role Playing-based Problem Based Learning (PBL) model. The mean interest score increased from **2.45 to 3.40**, showing an improvement of **0.95 points**. This rise suggests that students became more engaged and enthusiastic toward the learning process, driven by the interactive nature of the learning model, which encourages active participation and the clear division of roles within the group.

The highest student score also increased, from **2.65 to 3.45**, demonstrating that students with initially high interest showed further improvement. These students became more active in learning activities, showed better concentration, and were more willing to participate during lessons. Likewise, the lowest scores improved from **2.50 to 3.30**, indicating that even students with initially low interest benefited from the learning model, becoming more motivated and focused in class.

Overall, the descriptive results suggest that the Role Playing-based PBL model contributed positively to the enhancement of students' learning interest, enabling them to participate more actively and meaningfully throughout the learning process.

b. Students' Learning Motivation (Results of the Learning Motivation Questionnaire)

Table 2. Students' Learning Motivation Questionnaire (Pre-Test and Post-Test)

Parameter	Pretest	Posttest
Mean	65	81
Highest	70	90
Lowest	60	70

Source: Analysis of Students' Learning Motivation, 2025.

Based on the data, the average motivation score increased significantly from **65** during the pre-test to **81** during the post-test. This improvement reflects the positive influence of the Role Playing-based PBL model in fostering students' enthusiasm and drive to learn. The highest score rose from **70 to 90**, indicating that high-performing students were able to optimize their potential through more active and meaningful learning experiences.

Similarly, the lowest score increased from **60 to 70**, showing that the model not only benefits high-achieving students but also provides substantial support for lower-achieving students, enabling them to show notable improvement in motivation.

The overall increase of **16.7 points**, or **24.62%**, demonstrates that students' motivation improved considerably after the implementation of the learning model. These results show that the integration of Role Playing and PBL has a direct positive effect on students' cognitive engagement and academic performance.

After the intervention, the mean learning interest increased from **2.45 to 3.39**, while the mean learning motivation increased from **65 to 81.70**, confirming the effectiveness of the implemented model.

c. Observation Results

Table 3. Observation Results

Aspect	Mean	Categori
Internal	3,35	Good
Eksternal	3,55	Good

Source: Classroom Observation Results, 2025.

The internal aspect, with an average score of **3.35**, falls into the "Good" category. This score reflects students' positive behaviors during the learning process, such as enthusiasm, curiosity, willingness to cooperate, and openness to classmates' opinions.

The external aspect obtained an average score of **3.55**, also categorized as "Good". This indicates that external factors—including a supportive learning environment, teacher guidance, parental encouragement, praise, and engaging teaching methods—significantly influenced students' interest and motivation.

These descriptive findings provide an overall picture of the learning environment, showing improvements in student engagement following the implementation of the Role Playing-based PBL model.

d. Statistical Testing Results

Table 4. Shapiro–Wilk Normality Test

Variabel	**Statistic**	**Df**	**Signifikasi (p-value)**	**Conclucion**
Interest pretest	0,932	20	0,166	Normal
Interest posttest	0,993	20	0,173	Normal
Motivation pretest	0,923	20	0,113	Normal
Motivation posttest	0,960	20	0,541	Normal

Source: SPSS Output Version 29.0, 2025.

The Shapiro–Wilk test was used because the sample size was fewer than 100 respondents, making this method more appropriate and accurate. All variables have p-values greater than 0.05, indicating that the data are normally distributed and suitable for further parametric testing, such as the homogeneity test and MANOVA.

Table 5. Levene's Test Results

Variable	Levene Statistic	Df1	Df2	Sig. (p-value)
Motivation (pretest dan posttest)	1,066	1	38	0,308
Interest (pretest dan posttest)	2,297	1	38	0,138

Levene's Test Results

Both variables show p-values greater than 0.05, indicating that the variance between groups is homogeneous. These results confirm that the data meet the assumptions required for further analysis.

e. Discussion

The findings align with several modern learning theories:

1. Constructivist Theory (Vygotsky)

According to Vygotsky, optimal learning occurs when students actively construct knowledge through social interaction. Role playing aligns with the Zone of Proximal Development (ZPD), where students collaboratively solve problems under guided support.

2. Humanistic Theory (Rogers & Maslow)

Vygotsky's constructivist perspective posits that learning occurs optimally when students are actively involved in constructing their own understanding through social interaction. Role-playing activities embody this principle by placing students within the *Zone of Proximal Development* (ZPD), where they receive guided support while collaboratively solving problems with peers. Through interaction and shared dialogue, students gradually internalize concepts and build higher-order thinking skills, making role playing an effective strategy for strengthening both interest and motivation.

3. Humanistic Theory (Carl Rogers & Abraham Maslow)

Humanistic learning theory underscores the importance of fulfilling learners' psychological needs, such as self-esteem, belongingness, and self-actualization. Learning activities that involve role enactment and problem-solving provide students with opportunities to express themselves, feel valued in group interactions, and experience personal growth. These experiences naturally enhance intrinsic motivation, leading to greater enthusiasm, engagement, and emotional readiness to learn. Thus, the PBL-based role-playing model aligns closely with humanistic principles by creating a supportive and meaningful learning atmosphere.

4. Self-Determination Theory (Deci & Ryan)

Self-Determination Theory asserts that motivation flourishes when three basic psychological needs **autonomy**, **competence**, and **relatedness** are satisfied.

The Role Playing-based PBL model meets these criteria by:

a. Allowing students **autonomy** to explore and act out roles creatively
b. Helping them build **competence** through problem analysis and performance tasks, and
c. Encouraging **relatedness** by fostering collaboration and social interaction.
d. By fulfilling these needs, the model promotes strong, sustainable, and intrinsically driven motivation among students.

4. CONCLUSIONS AND SUGGESTIONS

Role learning model PBL-based play has been shown to have a significant effect on students' learning interest and motivation. The learning interest rate was 10.2% and a significance level of 0.001. Although the contribution is relatively low, the effect is still statistically significant, meaning this approach is able to increase students' interest in learning through active interaction and simulative role-playing . Meanwhile, for learning motivation, the effect reached 24.62% and a significance level of 0.000. This indicates that this learning model is very effective in arousing students' internal and external motivation to learn. The application of problematic and participatory learning scenarios has been shown to increase self-confidence, the desire to complete tasks, and a sense of ownership of the learning process. Overall, the Role-Playing approach PBL-based playing is a learning strategy that is relevant, contextual, and in accordance with the developmental characteristics of elementary school students, especially in creating an active, collaborative, and meaningful learning environment.

For Teachers, it is recommended to integrate the Role Model PBL-based role-playing is a continuous part of the learning process, not just for a single theme. Teachers need to adapt role-playing scenarios to real-life situations and students' daily lives to make learning more engaging and meaningful. Combining visual media, educational games, and a reflective approach will significantly increase student interest. For schools: Supporting facilities such as props, simple costumes, and flexible spaces should be provided to support role -playing. playing optimally. Teacher training is also important so that this approach can be implemented appropriately and innovatively. Furthermore, for further researchers: It is recommended to conduct further research with a broader scope (a larger number of subjects, across levels, or across subjects) and a longer implementation duration, so that the long-term effects of this learning model on learning interest can be evaluated. Qualitative or mixed-subject research This method can also provide a deeper understanding of the learning process and student psychological dynamics. Furthermore, for parents: Active involvement in their children's learning process is essential, particularly in providing moral and emotional support. Reinforcement from the home environment will enhance the positive effects of learning at school, particularly in maintaining children's motivation to learn.

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