

Enhancing Grade VII Students' Interest in Learning at SMPN 3 Madiun Through Problem-Based Learning Assisted by Puzzle-Based Students Worksheet

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Abstract

Indonesian is one of the subjects taught at school. However, not all students are interested in every topic or subject. Based on brief interviews and initial classroom observations, students were found to have a low level of interest in learning Indonesian. One potential solution is a problem-based learning model integrated with a student worksheet featuring an official letter puzzle. The proposed solution is intended to support students' cognitive needs and foster their learning motivation. The study was conducted at SMPN 3 Madiun, Jalan RA Kartini No. 6, Madiun Lor Village, Mangunharjo District, Madiun City, East Java. The research participants comprised all Grade VII F students at SMPN 3 Madiun, consisting of 15 male and 15 female students. Data were collected through student and teacher activity observation sheets and documentation. This classroom action research employed Kurt Lewin's model over two cycles. Process indicators were assessed by identifying changes in students' level of interest in learning, evaluating the success of each cycle, and determining whether further action was required in the subsequent cycle. The success criterion was set at a minimum achievement level of 70% to determine improvement in students' interest in learning. The data were analyzed descriptively using qualitative and quantitative approaches. The implementation of Problem-Based Learning (PBL) assisted by an official letter puzzle improved the quality of the learning process for the official letter unit among Grade VII F students at SMPN 3 Madiun. Integrating a puzzle containing analytical questions optimized time allocation, balanced group guidance, and transformed the learning process into an interactive and collaborative activity focused on the critical analysis of the structure and linguistic features of official letters. Moreover, the implementation of PBL assisted by an official letter puzzle increased students' interest in the material. The structured puzzle stimulated curiosity, encouraged students to ask questions, and fostered their active participation throughout the learning process.

Keywords: *interest in learning, puzzle, official letter, problem-based learning, student worksheet*

Introduction

The twenty-first century requires education to serve as the foundation of national civilization. Students must possess learning skills, life skills, and character attributes aligned with twenty-first-century demands (Siskawati et al., 2026). One of the greatest challenges in education is developing students' interest in learning. Limited attention, unwillingness to participate, and lack of effort to learn indicate low interest in learning (Sapari, 2024). Students who lack interest in learning tend to have difficulty concentrating when teachers explain material or provide instructions (Sutina et al., 2022). Indonesian is one of the subjects taught at school. Indonesian language instruction focuses on four language skills—reading, listening, speaking, and writing—which must be applied in

everyday life. Therefore, students need guidance in developing multiliteracy skills so that they can learn from their surroundings and understand Indonesian language concepts (Sapari, 2024). Indonesian language instruction is implemented through an integrated curriculum; however, not all students are interested in every topic or subject (Sugihartono, 2007, as cited in Marleni, 2016). A potential solution is a problem-based learning model integrated with a puzzle-based worksheet on official letters. This solution is designed to support students' cognitive needs and foster their learning motivation (Hariyati et al., 2024).

Brief interviews and initial classroom observations indicated that students had a low level of interest in learning Indonesian. This finding reflects a gap between the objectives of Indonesian language instruction—which require literacy, digital expression, and Pancasila Student Profile character competencies—and actual classroom conditions. Students demonstrated limited conceptual and structural understanding of language, influenced by poor learning concentration and inadequate digital literacy. Although students showed considerable motivation toward problem-based learning assisted by a letter puzzle, its effectiveness depended on the teacher's competence in managing the medium and integrating it into instruction. The proposed solution was therefore a problem-based learning model integrated with a puzzle-based worksheet on official letters, designed to support students' cognitive needs and foster their learning motivation (Hariyati et al., 2024). This finding is consistent with research suggesting that instructional media can stimulate students' interest in learning. Media can attract students' attention and increase their enthusiasm for learning, thereby enabling them to meet the minimum competency criterion (Fuad & Zuraini, 2016).

Efforts to increase students' interest in learning continue to be developed through various innovations in instructional media integrated into student worksheets. Previous studies have shown that both problem-based learning and puzzle-based worksheets on official letters can significantly increase student engagement and interest in learning. This is consistent with Hariyati et al. (2024), who demonstrated that problem-based learning assisted by a puzzle-based worksheet on personal letters could strengthen the Pancasila Student Profile through the PBL stages of lesson introduction, discussion, presentation, and evaluation. The effectiveness of letter puzzles is also supported by Alfiah et al. (2020), who found that students became more active and demonstrated increasing interest in learning at each stage of instruction. Based on these studies, the combination of problem-based learning and a letter puzzle can be integrated to address students' low learning motivation.

Although the two approaches differ, each has contributed to addressing the identified problem. Nevertheless, a research gap remains regarding their specific integration into Indonesian language instruction at the junior secondary school level. The novelty of this study lies in the use of a letter puzzle game integrated into a student worksheet. The intervention was implemented in the official letter unit within the Grade VII Indonesian language curriculum at the junior secondary school level. The medium helped students reconstruct the components of an official letter and was expected to provide a concrete, collaborative, and relevant learning experience that enhanced students' interest and structural understanding of official letters.

This study aimed to identify how problem-based learning assisted by an official letter puzzle could improve the learning process and students' interest in the official letter unit at SMPN 3 Madiun. The learning process among Grade VII students was described in depth following the implementation of problem-based learning assisted by a puzzle-based

student worksheet. The findings were then analyzed to determine the improvement in students' interest in learning.

Method

A research site is the location where a researcher collects data to answer the research questions (Sugiyono, 2008, as cited in Kamarudin, 2025). Research sites may include schools, villages, cities, or laboratories. This study was conducted at SMPN 3 Madiun, Jalan RA Kartini No. 6, Madiun Lor Village, Mangunharjo District, Madiun City, East Java, from 1 to 30 April 2026. Research time refers to the period within which a finding is produced (Sugiyono, 2023, p. 37). This classroom action research was conducted throughout April 2026 using Kurt Lewin's cyclical model. The participants were Grade VII F students at SMPN 3 Madiun, comprising 15 male and 15 female students, for a total of 30 participants. The students experienced difficulties understanding interrogative sentences, text structures, and linguistic features in Indonesian, which reduced their interest in learning. Another concerning social phenomenon was the use of impolite and harsh language when interacting with peers. In this classroom action research, problem-based learning assisted by a letter puzzle worksheet served as the action variable for improving the outcome variable, namely students' interest in learning. To measure this improvement objectively, the assessment instrument was developed based on Slameto's (2010) indicators of interest in learning: enjoyment, interest, acceptance, and student involvement (Slameto, 2010, as cited in Syardiansah, 2016).

Classroom action research requires data to evaluate and reflect on learning processes and outcomes (Farhana et al., 2019, p. 67). In this study, data were collected using student and teacher activity observation sheets and documentation. Classroom action research based on Kurt Lewin's model consists of several stages (Prihantoro & Hidayat, 2019; Susilowati, 2018; Mulyasa, 2010, as cited in Sari et al., 2024, p. 103). The first cycle comprised planning, action, observation, and reflection. The researcher then redesigned the intervention for the second cycle before implementing, observing, and reflecting on it. Process indicators were evaluated by identifying changes in students' interest in learning, assessing the success of each cycle, and determining whether further action was needed. The success criterion was set at a minimum of 70%. A score below 70% indicated that interest in learning had not improved or had not met the criterion, whereas a score above 70% indicated improvement and successful completion. The data were analyzed descriptively using qualitative and quantitative approaches. Qualitative analysis was based on observations of changes from Cycle I to Cycle II, while quantitative analysis measured students' interest scores before and after the intervention.

Results

Before the Cycle I intervention, Indonesian language learning in Grade VII F was characterized by low interest in learning. Initial observations and a brief interview with the subject teacher showed that students had difficulty understanding interrogative sentences, text structures, and linguistic features. Consequently, the learning process did not adequately stimulate their interest. Cycle I assessment scores ranged from 77 to 89, with a mean of 83.6, indicating improved understanding of official letter structure compared with the initial diagnostic assessment. However, the class mean interest score in Cycle I was only 39.2%, placing it in the low category. This was consistent with the researcher's descriptive observation notes, which indicated that students' attention was limited and easily distracted. In Cycle II, all students obtained scores ranging from 77 to 95, with a mean of 85.4. These results indicated that students' initial cognitive readiness

for new test items still required reinforcement, despite improvement in their final project achievement. Teacher performance reached a total score of 95.8%, while students' interest score in Cycle II reached 87.5%, categorized as very high.

The improvement resulting from the intervention was demonstrated by the teacher's enhanced performance in managing the instructional stages, increasing from an adequate rating of 66.7% in Cycle I to a very good rating of 95.8% in Cycle II. In addition, students' mean interest score increased markedly from the low category of 39.2% in Cycle I to the very high category of 87.5% in Cycle II, thereby exceeding the predetermined success criterion of 70%.

Table 1. Results of Classroom Action Research Data Collection

Indicator	Cycle I	Cycle II
Student Cognition	83.6	85.4
Teacher Performance	66.7%	95.8%
Interest Level	39.2%	87.5%
Success Indicator	Not Achieved	Achieved

Discussion

Students' interest in learning is reflected in four dimensions: enjoyment, interest, acceptance, and involvement, which do not necessarily develop concurrently. These four dimensions are components that may develop gradually and not always simultaneously (Slameto, 2010, as cited in Syardiansah, 2016). Interest in learning is dynamic and influenced by students' adaptation to newly introduced learning models and media (Furqon, 2024).

Regarding the instructional model, the implementation of problem-based learning assisted by a letter puzzle demonstrated that puzzle-assisted PBL could promote student engagement through the stages of lesson introduction, group discussion, presentation, and evaluation (Hariyanti et al., 2024). The effectiveness of puzzle media is not automatic; rather, it depends strongly on the depth of the teacher's instructions in guiding students toward critical analytical activities. Accordingly, this study further emphasizes the importance of strengthening analytical questions. Cycle I evaluation identified several areas for improvement: optimizing time allocation, distributing group guidance equitably, and strengthening the analytical questions incorporated into the puzzle. These findings reinforce the view that interest in learning is dynamic and influenced by students' adaptation to newly introduced learning models and media (Furqon, 2024).

The predominantly technical puzzle instructions used in Cycle I resulted in persistently low interest scores. After the instructions were strengthened with analytical questions in Cycle II, students' interest in learning increased substantially. This change is consistent with Yetti's (2022) view that game-based or manipulative elements in student worksheets, such as puzzles, should be adapted to the characteristics of junior secondary students. Students in this age group still enjoy play-based activities; however, such activities must be combined with analytical questions to optimize cognitive engagement and encourage active participation (Djamarah, 2002, as cited in Syardiansah, 2016).

Conclusion

The implementation of Problem-Based Learning (PBL) assisted by an official letter puzzle improved the quality of the learning process for the official letter unit among Grade VII F students at SMPN 3 Madiun. Integrating a puzzle containing analytical questions optimized time allocation, balanced group guidance, and transformed the instructional sequence into an interactive and collaborative learning activity focused on the critical

analysis of the structure and linguistic features of official letters. Moreover, PBL assisted by an official letter puzzle significantly increased students' interest in the official letter unit at SMPN 3 Madiun. The structured puzzle successfully stimulated curiosity, encouraged students to ask questions, and fostered their active participation throughout the learning process.

This study offers teachers an alternative instructional strategy and a means of developing students' learning competencies. The intervention may be implemented by providing structured reflective questions to identify students' understanding. Future researchers are advised to examine the consistency and effectiveness of puzzle-assisted PBL across different subject matter, educational levels, or dependent variables, such as critical-thinking ability or the independent writing of official letters.

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