



Efforts to Increase Student Motivation and Learning Achievement through Wordwall Media-Assisted Problem Based Learning Model in Social Science Learning in Elementary School

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ABSTRACT

Keywords:

Motivation;
Learning Achievement;
Problem Based Learning.

Abstract: The low motivation and learning achievement of grade IV elementary school students in the science subject is the background of this study. This research aims to improve students' motivation and learning achievement through the application of the Problem Based Learning model assisted by Wordwall media. This research is a Class Action Research (PTK) with the Kemmis and McTaggart models which is carried out in two cycles, each consisting of the stages of planning, implementation of actions, observation, and reflection. The research subjects amounted to 21 grade IV students of SD Negeri 2 Karangnangka. Data was collected through observation, questionnaires, tests, interviews, and documentation, then analyzed using quantitative descriptive and qualitative descriptive techniques. The results of the study showed that the completeness of student learning achievement increased from 61.90% in the first cycle to 83.33% in the second cycle. Students' learning motivation has also increased, as shown by the average percentage of learning motivation from 64.28% in the first cycle to 88.69% in the second cycle. This improvement shows that the application of the Problem Based Learning model assisted by Wordwall media is able to increase student involvement during learning so that it has an impact on increasing motivation and learning achievement. Thus, the Problem Based Learning model assisted by Wordwall media can be used as an effective learning alternative to improve the quality of social studies learning in elementary schools.

Kata Kunci:

Motivasi;
Prestasi Belajar;
Problem Based Learning.

Abstrak: Rendahnya motivasi dan prestasi belajar siswa kelas IV sekolah dasar pada mata pelajaran IPAS menjadi latar belakang penelitian ini. Penelitian ini bertujuan untuk meningkatkan motivasi dan prestasi belajar siswa melalui penerapan model *Problem Based Learning* berbantuan media *Wordwall*. Penelitian ini merupakan Penelitian Tindakan Kelas (PTK) dengan model Kemmis dan McTaggart yang dilaksanakan dalam dua siklus, masing-masing terdiri atas tahap perencanaan, pelaksanaan tindakan, observasi, dan refleksi. Subjek penelitian berjumlah 21 siswa kelas IV SD Negeri 2 Karangnangka. Data dikumpulkan melalui observasi, angket, tes, wawancara, dan dokumentasi, kemudian dianalisis menggunakan teknik deskriptif kuantitatif dan deskriptif kualitatif. Hasil penelitian menunjukkan bahwa ketuntasan prestasi belajar siswa meningkat dari 61,90% pada siklus I menjadi 83,33% pada siklus II. Motivasi belajar siswa juga mengalami peningkatan, ditunjukkan oleh rata-rata persentase motivasi belajar dari 64,28% pada siklus I menjadi 88,69% pada siklus II. Peningkatan tersebut menunjukkan bahwa penerapan model *Problem Based Learning* berbantuan media *Wordwall* mampu meningkatkan keterlibatan siswa selama pembelajaran sehingga berdampak pada meningkatnya motivasi dan prestasi belajar. Dengan demikian, model *Problem Based Learning* berbantuan media *Wordwall* dapat dijadikan alternatif pembelajaran yang efektif untuk meningkatkan kualitas pembelajaran IPAS di sekolah dasar.

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A. INTRODUCTION

Education is a process that is consciously designed and implemented to create a learning environment that allows students to develop all their potentials optimally. The development includes spiritual, intellectual, and social aspects, so that students can develop into faithful, creative, independent, and responsible individuals (Pristiwanti et al., 2022). Entering the 21st century, education has an important role in preparing students to not only master knowledge, but also to have essential skills, such as critical thinking, communication skills, collaboration, and creativity (Nurazizah et al., 2025). Thus, learning needs to be designed innovatively and student-centered to increase their activeness in the learning process and help achieve the expected competencies.

Through the Decree of the Minister of Education Number 56/M/2022 concerning Guidelines for the Implementation of the Curriculum in the Context of Learning Recovery, the government has established the Independent Curriculum as a curriculum innovation designed to provide flexibility in the implementation of learning in accordance with the needs of students. This is in line with the opinion of Ardianti & Nur (2022) who said that "The independent curriculum focuses more on the freedom to learn independently and creatively, which will later have an impact on students who have an independent character."

Learning is a process that involves interaction between teachers and students as an effort to achieve learning objectives effectively. According to Pane and Dasopang (2017), learning is a process of interaction between students, teachers, and various learning resources designed to encourage changes in aspects of knowledge, skills, and attitudes of students. Therefore, learning is the main part of the implementation of the curriculum because it includes all efforts made by teachers to facilitate the learning process. One of the implementations of the Independent Curriculum in elementary schools is realized through the subject of Natural and Social Sciences (IPAS), which integrates Natural Sciences (IPA) and Social Sciences (IPS). The integration aims to simplify learning materials while providing a more contextual learning experience according to the characteristics and needs of students at the elementary school level (Marwa et al., 2023).

Based on the results of observations made in grade IV of SD Negeri 2 Karangnangka, it was found that there was a gap between the expected learning conditions and the implementation in the classroom. Social studies learning is still dominated by lecture methods so that learning interactions tend to take place in one direction. This condition causes student involvement in learning to be not optimal. Most students are still reluctant to ask questions or answer questions from teachers, lack concentration when participating in learning, and show low participation. Of the 21 students, as many as 14 students (67%) were identified as having low learning motivation. This can be seen from the habit of delaying the completion of assignments, paying less attention to the teacher's explanations, and more often doing activities that are not related to learning. This low motivation to learn also has an impact on the achievement of learning outcomes that do not meet the Learning Goal Achievement Criteria (KKTP). The decline in learning outcomes is also seen in the Mid-Semester Summative (STS) score of science subjects, where the percentage of learning completeness decreased from 70% in the 2024/2025 school year to 24% in the 2025/2026 school year. The findings show that improvement efforts are needed through the implementation of more effective learning strategies to improve student motivation and learning outcomes.

In the learning process, teachers play a role in designing various activities that can create a learning environment that encourages students to actively participate. Through these activities, students are expected to be able to understand the material, develop skills, and foster a positive attitude towards the learning process (Junaedi, 2019). Effective learning not only improves material mastery, but also trains metacognitive abilities so that students are able to think critically and independently. This condition contributes to an increase in learning achievement, which is generally measured through the grades or evaluation results obtained by students (Agustina et al., 2023).

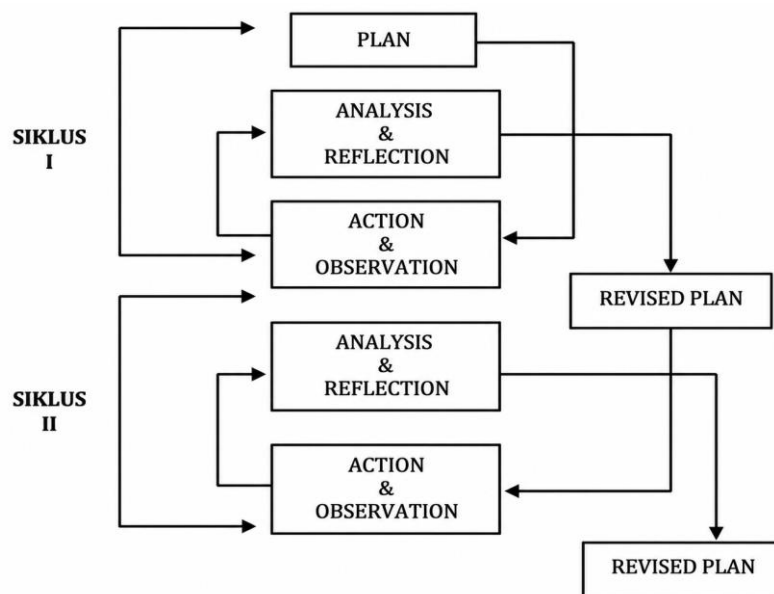
To overcome these problems, researchers and classroom teachers implement learning that is able to increase students' focus and activeness. The process is supported by the use of interesting media so that students' attention is maintained during learning. Various studies show that Problem Based Learning is effective in improving the learning achievement of elementary school students (Azzahra & Badarudin, 2025; Damayanti & Badarudin, 2024; Kusuma, 2020). On the other hand, research on Wordwall also shows that this media is able to increase motivation and learning outcomes through the presentation of more interesting learning activities (Hafinda et al., 2025; Hasanah et al., 2024). However, most of these studies still examined the effectiveness of PBL or Wordwall separately. Research that integrates Problem Based Learning with Wordwall media in IPAS learning in elementary schools, especially to increase motivation as well as learning achievement, is still limited. Thus, there is not much research that explains how the combination of problem-solving-based learning models with interactive digital media can have a simultaneous impact on both aspects.

This research offers novelty through the integration of the Problem Based Learning model with Wordwall media in IPAS learning in elementary schools. The integration not only leverages the characteristics of PBL that is oriented towards solving problems, but also optimizes the use of interactive digital media to increase student engagement during the learning process. Thus, this study provides an empirical contribution regarding the effectiveness of the combination of learning models and digital media in increasing motivation and learning achievement simultaneously, which has rarely been studied in previous research.

Based on the background, this research focuses on the subject of science and science material "Peranku di Lingkungan Sekolah dan Masyarakat". This research aims to improve student motivation and learning achievement through the application of the Problem Based Learning model assisted by Wordwall media in grade IV of SD Negeri Karangnangka. Previous research has not integrated the Problem-Based Learning model assisted by Wordwall media in IPAS learning in elementary schools. It is hoped that this research can provide benefits for students, teachers and schools as evaluation material in the application of innovative learning models, as well as a basis for consideration to improve and prepare more effective learning plans in the future.

B. RESEARCH METHODS

This study uses the Classroom Action Research/Penelitian Tindakan Kelas (PTK) method with the model of Kemmis and McTaggart (2014) which consists of four stages, namely planning, implementation of actions, observation, and reflection. The research was carried out on grade IV students of SD Negeri 2 Karangnangka which amounted to 21 students, consisting of 10 male students and 11 female students. The initial observation was carried out in November 2025 to identify learning problems, while the research action was carried out in the even semester, namely May 4–16, 2026. The research was carried out in two cycles and each cycle consisted of two meetings.



Picture 1. Kemmis and McTaggart Models
(Wijaya et al., 2023)

In the planning stage, the researcher compiled teaching modules, Student Worksheets (LKPD), Wordwall learning media, observation instruments for teacher activities and student activities, learning motivation questionnaires, and learning achievement evaluation tests. In addition, the researcher compiled a learning scenario based on the Problem Based Learning (PBL) syntax that will be applied to each meeting.

The implementation stage of the action was carried out by applying the Problem Based Learning model assisted by Wordwall media on the learning of IPAS *Peranku* material "*Peranku di Lingkungan Sekolah dan Masyarakat*." Learning is carried out according to the syntax of Problem Based Learning, namely: (1) orienting students to contextual problems, (2) organizing students into study groups, (3) guiding individual and group investigations, (4) developing and presenting the results of discussions, and (5) analyzing and evaluating the problem-solving process. Wordwall media is integrated into learning apperception, exercise, concept reinforcement, and evaluation activities to increase students' attention, participation, and learning motivation.

The observation stage is carried out during the implementation of actions by classroom teachers and peers as observers by observing the implementation of Problem Based Learning syntax, teacher activities, student activities, learning motivation, and student learning achievement. Furthermore, the reflection stage is carried out at the end of each cycle by analyzing the results of observation and evaluation to identify learning successes and obstacles as the basis for improving actions in the next cycle.

Data collection was carried out through interviews, observations, documentation, learning motivation questionnaires, and evaluation tests. Observation sheets are used to observe teacher activities and student activities during the implementation of Problem Based Learning syntax. Learning motivation was measured using a Likert scale questionnaire which included indicators of learning diligence, attention to learning, activeness in participating in learning, confidence in expressing opinions, and responsibility in completing tasks. Learning achievement was measured using an evaluation test in the form of five essay questions prepared based on the learning objectives of "*Peranku di Lingkungan Sekolah dan Masyarakat*." All research instruments have been validated through content validity validation by supervisors and classroom teachers before being used in the research.

Data were analyzed using quantitative descriptive and qualitative descriptive techniques. The data from observations, learning motivation questionnaires, and learning achievement tests were analyzed using average scores and percentages, then converted into predetermined categories. Meanwhile, the data from observation and documentation were analyzed in a qualitative descriptive manner to support the interpretation of the research results. The success of the research is determined if at least 75% of students achieve learning completeness according to the Learning Goal Achievement Criteria (KKTP) and at least 70% of students achieve the good category of learning motivation (Babasa & Kusnanto, 2026).

C. RESULTS AND DISCUSSION

This PTK will be held in grade IV of SD Negeri 2 Karangnangka on May 4-16, 2026. The research data was collected through observation of teacher activities, student activities, motivation questionnaires, and evaluation tests at the end of each meeting. Learning the material *"Peranku di Lingkungan Sekolah dan Masyarakat"* applies the Problem Based Learning model assisted by Wordwall. Students' abilities were measured using five essay questions that were done independently, and the results are presented in the following Table 1.

Table 1. Improving Student Learning Achievement

No.	Remarks	Cycle I		Cycle II	
		P1	P2	P1	P2
1	KKTP	70	70	70	70
2	Number of students	21	21	21	21
3	Number of students completed	12	14	16	19
4	Number of students is incomplete	9	7	5	2
5	Average	66,90	79,76	79,05	85,00
6	Average percentage of completion of cycle I and cycle II	73,33		82,02	
7	Learning completeness	57,14%	66,66%	76,19%	90,47%
8	Classical completeness	61,90%		83,33%	
9	Criteria	Enough		Good	

Table 1 shows the increase in student learning achievement in each cycle. The classical completeness in the first cycle of 61.90% is still below the target of 75% because student participation is not optimal, such as dependence on friends, low confidence, and lack of involvement in group discussions. After the action was corrected in cycle II, completeness increased to 83.33%, which shows the effectiveness of the Wordwall-assisted Problem Based Learning model in improving learning achievement.

The application of Problem Based Learning has been proven to increase student learning achievement. The consistent implementation of model syntax encourages students to be actively involved in problem solving, discussing, exchanging ideas, and finding solutions, so that their understanding of the material increases. This is in line with the statement of Masrinah et al. (2019) which explains that in the Problem Based Learning model, problems are used as a starting point for learning to encourage students' activeness in seeking information, discussing, and solving problems. This approach contributes to improving students' understanding of concepts and learning achievement.

Learning with Problem Based Learning begins with the formation of four groups consisting of 5–6 students. Each group analyzes contextual problems, solves LKPDs, and discusses to find solutions with teacher guidance. At the end of the lesson, students take an evaluation test to measure their understanding after the application of the model. In the *material "Peranku di Lingkungan Sekolah dan Masyarakat"*, the application of Problem Based Learning creates more active and meaningful

learning. Students engage in discussions, group work, and contextual problem-solving so that they are more courageous to express their opinions and understand the material better.

This research is supported and strengthened by several previous studies, such as the opinion of Utami et al. (2025) shows that the results of the study show that the application of the Problem Based Learning (PBL) model is able to improve student learning achievement in science subjects. Understanding of the material increases as students take an active role in discussion, investigation, and problem-solving. Previous research by Fitriyah et al. (2024) explain that student learning achievement in IPAS learning increases through the implementation of Problem Based Learning (PBL) assisted by LKPD. The increase is supported by students' involvement in critical thinking, information seeking, and problem-solving. In addition, it is supported by research by Irawati et al. (2024) which shows that the learning achievement of elementary school students increases through the implementation of Problem Based Learning (PBL). This model actively involves students in discussion and problem solving, so that their understanding of the material becomes more optimal.

Student learning achievement increased after the implementation of Problem Based Learning assisted by Wordwall media. Classical completeness increased from 61.90% in cycle I to 83.33% in cycle II and has exceeded the success target of 75%. This improvement shows that student involvement in discussions, information retrievals, and problem-solving helps deepen understanding of the material so that learning outcomes are better. In line with the opinion of Hotimah (2020) who states that in Problem Based Learning (PBL), students play an active role in solving problems, discussing, and finding solutions independently or in groups. This process encourages increased motivation, strengthens material understanding, and has an impact on improving learning achievement.

Student learning achievement increases along with the increase in teacher activity, student activity, and learning motivation. Teacher activity increased from 76.66% to 91.66%, while student activity increased from 61.90% to 83.33% in cycle II. The increase in motivation obtained through the questionnaire also shows that the application of Problem Based Learning is able to create more active learning and support the improvement of learning achievement, as shown in Table 2.

Table 2. Improving Students' Learning Motivation

Cycle	Presentase	Criteria
Cycle I	64,28%	enough
Cycle II	88,69%	excellent

Improvements in the implementation of learning have a positive impact on students' learning motivation. It can be seen that the table above shows that the learning motivation of the first cycle reached an average of 6.43, while the second cycle became 8.87. Based on the results of the student motivation questionnaire, there was a fairly good increase. One of the factors that affect students' success in learning is the students' learning motivation during the learning process. This is in line with the opinion of Rahman (2022) who explains that learning motivation is an encouragement from within students that affects enthusiasm and perseverance in achieving learning goals. This motivation encourages students to be more active in asking questions, discussing, and completing assignments so that engagement in learning increases and learning goals are easier to achieve. This research is supported by the opinion of Suharni & Purwanti (2018) who explain that learning motivation is an important factor that encourages student involvement in learning. Students who are highly motivated tend to be more active, diligent, and strive to achieve optimal learning outcomes.

The application of Problem Based Learning with the help of Wordwall media has been proven to be able to increase students' learning motivation to meet research success indicators. The increase is shown by students' enthusiasm during learning, active participation in discussions, courage to

express opinions, and seriousness in completing assignments. In the opinion of Sardiman (2018), it is stated that learning motivation is reflected in students' perseverance in learning, tenacity in facing difficulties, interest in learning, and encouragement to achieve learning goals. Before the implementation of Problem Based Learning with the help of Wordwall media, student motivation and involvement in learning were still low. This condition is shown by a lack of focus when participating in learning, low confidence to express opinions, reluctance to ask questions when experiencing difficulties, and lack of participation in discussions and task completion.

The implementation of Problem Based Learning with the help of Wordwall media improves the quality of learning in the classroom. Students who previously had difficulty understanding the material became more active in discussing, daring to ask questions and opinions, and easier to understand the material through collaborative problem-solving activities. This is in line with the opinion of Nur et. al (2026) who stated that the application of the Problem Based Learning model is able to increase student involvement in learning because students are trained to actively seek information, discuss, and solve problems.

In the first cycle, students' learning motivation is still not optimal. This can be seen from the low enthusiasm at the beginning of learning, lack of participation in discussions, lack of confidence when expressing opinions, and reluctance to ask questions when experiencing difficulties. In addition, some students also did not dare to present the results of the discussion in front of the class. These findings became the basis for learning improvements in cycle II. After implementing Problem Based Learning with the help of Wordwall media in cycle II, students' motivation to learn increased. Students began to show higher enthusiasm, actively discuss, were able to work together to complete the LKPD, and were more confident when presenting the results of discussions, asking questions, and responding to friends' opinions. Although there are still some students who occasionally lose focus, their engagement in learning looks much better than in previous cycles. These results show that Problem Based Learning assisted by Wordwall media is effective in increasing student learning motivation. This model encourages students to be directly involved in problem-solving, information seeking, and discussion so that learning becomes more meaningful. Such active involvement not only increases students' confidence and participation, but also helps them understand the material better and complete tasks independently and collaboratively.

Learning motivation is the encouragement that arises from within students to carry out learning activities so that students have enthusiasm, perseverance, and desire to achieve learning goals (Uno, 2021). The implementation of Problem Based Learning with the help of Wordwall media has succeeded in increasing the learning motivation of fourth grade students of SD Negeri 2 Karangnangka to exceed the success indicator by 75%. The average learning motivation increased from 64.28% in the first cycle (adequate category) to 88.69% in the second cycle (excellent category). This research is strengthened by the research of Arni (2023) who stated that students' motivation to learn increased from cycle I to cycle II after the implementation of Problem Based Learning. The improvement is supported by students' active involvement in discussions, problem-solving, and group cooperation. This is also in line with the opinion of Hotimah (2020) who explains that the Problem Based Learning model is learning that involves students to actively solve problems so that it can increase student involvement and motivation in learning.

The increase in learning motivation that occurred during the implementation of Problem Based Learning assisted by Wordwall media contributed to the increase in student learning achievement. Students who have high learning motivation tend to be more active in participating in learning, participating in group discussions, daring to express opinions, and showing perseverance in completing the assigned tasks. This condition provides opportunities for students to build a deeper understanding of concepts so that it has an impact on improving learning evaluation results. Thus, the findings of this study show that there is a mutually supportive relationship between learning

motivation and learning achievement, where increased motivation during the learning process is followed by an increase in student learning outcomes achievement.

The implementation of Problem Based Learning assisted by Wordwall media has several advantages in learning social studies in elementary schools. This model is able to create a more active learning atmosphere because students are directly involved in problem-solving activities, group discussions, and presentations of work. The use of Wordwall as an interactive learning medium also increases students' attention and enthusiasm so that the learning process becomes more interesting. The combination of problem-solving activities and interactive digital media provides opportunities for students to build knowledge independently while increasing learning motivation.

On the other hand, the implementation of this model still has some limitations. Teachers need more time to design lessons, prepare Wordwall media, and manage group discussions so that all students actively participate. In addition, the diverse abilities of students cause not all students to show the same improvement, so teachers still need to provide individual assistance to students who experience difficulties. The findings of this study provide an implication that the integration of the Problem Based Learning model with interactive digital media, such as Wordwall, can be used as an alternative learning strategy in science subjects in elementary schools. In addition to increasing motivation and learning achievement, the application of this model also supports student-centered learning in accordance with the implementation of the Independent Curriculum. Therefore, primary school teachers can leverage the combination of these models and media to create more active, contextual, and meaningful learning.

D. CONCLUSIONS AND SUGGESTIONS

The application of the Problem Based Learning model assisted by Wordwall media has proven to be effective in increasing student motivation and learning achievement in learning IPAS material *"Peranku di Lingkungan Sekolah dan Masyarakat."* This increase is shown through increased student involvement in the learning process, courage to express opinions, participation in discussions, and completeness of learning outcomes that have met the indicators of research success. These findings show that the integration of problem-solving-based learning models with interactive learning media can create a more active, contextual, and meaningful learning experience for elementary school students. The main contribution of this research lies in the application of Problem Based Learning combined with Wordwall media as a learning strategy that not only increases learning achievement, but also strengthens students' motivation to learn at the same time. The results of this study provide empirical evidence that the combination of learning models and interactive digital media can be one of the learning alternatives that support the implementation of the Independent Curriculum through student-centered learning, encourage active participation, and create a more interesting and effective learning atmosphere.

Elementary school teachers are advised to use the Problem Based Learning model assisted by Wordwall media as one of the learning alternatives in science subjects and other subjects that have similar characteristics. Schools are also expected to support the implementation of the model through the provision of digital learning facilities and improving teachers' competence in designing technology-based learning. The next research is suggested to test the application of the Problem Based Learning model assisted by Wordwall media on different learning materials, more diverse education levels, and different student characteristics to obtain a more comprehensive picture of the effectiveness of the model. In addition, subsequent research can use a broader research design, such as experiments or quasi-experiments with a larger sample size, so that the results of the study have a stronger generalization power.

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