JOURNAL FAST IN SOCIAL SCIENCES
ISSN: 3123-4453 Vol. 2 No. 1, March 2026, pp. 32-38

Implementation of Model Problem Based Learning (PBL) Model with Audio Visual to Increase Students Learning Motivation in Science Subjects for Grade IV UPTD SD Negeri 15 Parepare

Siti Maryam Asfa[1], Ila Israwaty[2], Nur Ilmi[3*]

[1,2,3] Faculty of Education, Universitas Negeri Makassar, Makassar, Indonesia

*Email : nurilmi@unm.ac.id

* Corresponding Author

ARTICLE INFO

Article history

Revised: 1 March 2026
Accepted: 11 March 2026

Keywords
Audio-Visual Media
Problem Based Learning
Learning Motivation
Science Education
Student

ABSTRACT

This study addressed the problem of low student learning motivation in science subjects among fourth-grade students at UPTD SD Negeri 15 Parepare. The research aimed to describe the implementation steps of the Problem Based Learning (PBL) model assisted by audio-visual media and to examine its effectiveness in improving students' learning motivation in science. This study employed a qualitative approach using Classroom Action Research (CAR). The subjects consisted of one teacher and 29 fourth-grade students of UPTD SD Negeri 15 Parepare. Data were collected through observation, questionnaires, and documentation. The data were analyzed using data condensation, data display, and conclusion drawing. The research was conducted in two cycles, each comprising two meetings. The findings from the first cycle indicated that teacher activities were categorized as sufficient (C), and student activities were also categorized as sufficient (C). The results of the motivation questionnaire showed a high level of student motivation. In the second cycle, improvements were observed in the learning process, with teacher and student activities reaching good qualifications (B). Furthermore, the results of the motivation questionnaire increased to the very high motivation category. In conclusion, the implementation of the Problem Based Learning (PBL) model supported by audio-visual media was successfully carried out and effectively enhanced students' learning motivation in science subjects among fourth-grade students at UPTD SD Negeri 15 Parepare.

1. Introduction

Natural and Social Sciences Education (IPAS) at the elementary school level plays a strategic role in developing students' scientific knowledge, attitudes, and critical thinking skills. The implementation of national education in Indonesia is grounded in Law Number 20 of 2003 concerning the National Education System, which emphasizes that education aims to develop learners' potential to become knowledgeable, creative, independent, democratic, and responsible

citizens[1]. In alignment with this mandate, IPAS learning is expected not only to emphasize conceptual mastery but also to cultivate logical reasoning, systematic thinking, scientific attitudes, and problem-solving skills relevant to students' daily lives[2]. Within the Merdeka Curriculum framework, IPAS is designed as an integrated subject that promotes inquiry, exploration, collaboration, and critical thinking through meaningful learning experiences.

However, the implementation of IPAS learning in elementary schools continues to face significant challenges. Previous studies indicate that teachers often experience difficulties in selecting appropriate instructional models and learning media, resulting in teacher-centered instruction and less engaging classroom environments. Monotonous teaching methods and limited use of interactive media contribute to low student participation and decreased learning motivation. Empirical findings consistently demonstrate that learning motivation significantly influences students' academic achievement, particularly in science-related subjects at the elementary level.

Preliminary observations, interviews, and analysis of students' academic records in Grade IV at UPTD SD Negeri 15 Parepare revealed low learning motivation, characterized by limited participation, minimal attention during lessons, low engagement in discussions, and insufficient involvement in problem-solving activities. Classroom instruction was predominantly lecture-based, with limited integration of interactive or contextual media. These conditions indicate a discrepancy between the expectations of the Merdeka Curriculum and actual classroom practices, highlighting the need for innovative instructional strategies.

One instructional approach that encourages students to think actively and construct solutions independently is Problem Based Learning (PBL). PBL is an instructional model that begins with the presentation of contextual, real-life problems that students must analyze and solve collaboratively. Through this process, students are required to engage in critical thinking, inquiry, and reflective reasoning, thereby strengthening their problem-solving abilities. This approach aligns closely with the characteristics and objectives of IPAS learning, which emphasize scientific processes such as observation, investigation, analysis, and the development of scientific attitudes[3].

To optimize the implementation of PBL, the integration of audio-visual media can provide meaningful support. Audio-visual media, including animated and experimental videos, present information through moving images and sound, thereby clarifying abstract concepts and increasing students' attention and engagement[4]. By presenting real-life problems in visual and auditory formats, such media enable students to observe phenomena more concretely, identify relevant information, and analyze potential causes and solutions more effectively. This integration supports the core principles of PBL, which require active observation, interpretation, and problem analysis.

Learning motivation itself is a fundamental internal drive that transforms students' potential into purposeful learning actions. Strong motivation enhances engagement, sustains attention,

[1] Republik Indonesia, 'Undang-Undang Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional', *Lembaran Negara Republik Indonesia Tahun 2003 Nomor 78*, 2.1 (2003), 39–45 <https://doi.org/10.24967/ekombis.v2i1.48>.

[2] Fransiska Faberta Kencana Sari and Idam Ragil Widianto Atmojo, 'Analisis Kebutuhan Bahan Ajar Digital Berbasis Flipbook Untuk Memberdayakan Keterampilan Abad 21 Peserta Didik Pada Pembelajaran IPA Sekolah Dasar', *Jurnal Basicedu*, 5.6 (2021), 6079–85.

[3] Verra Triyanti Agustin and Ila Israwaty, 'Peningkatan Hasil Belajar Siswa Materi Operasi Hitung Campuran Melalui Model Pembelajaran Based Learning', *Pinisi Journal PGSD*, 1.November (2021), 1180–90.

[4] Indira Pratiwi and Mawardi, 'Penerapan Model Problem Based Learning Berbantuan Audio Visual Untuk Meningkatkan Kemampuan Berpikir Kritis Dan Hasil Belajar Siswa', *Journal of Education Action Research*, 6.3 (2022), 10132–38 <https://doi.org/10.54371/jiip.v6i12.2413>.

directs learning behavior, and ultimately contributes to improved academic outcomes[5]. Therefore, strengthening students' learning motivation is essential for achieving optimal IPAS learning objectives.

Although previous research has demonstrated that PBL improves learning outcomes and that audio-visual media increase student engagement, limited studies have specifically examined the integrated implementation of the PBL model assisted by audio-visual media in IPAS learning at the fourth-grade elementary level within the Merdeka Curriculum context. This gap represents the scientific novelty of the present study.

Therefore, it is urgent to implement an innovative, problem-oriented, and media-supported instructional strategy to address low student motivation in IPAS learning. This study aims to describe the implementation steps of the Problem Based Learning model assisted by audio-visual media and to examine its effectiveness in improving the learning motivation of fourth-grade students in IPAS at UPTD SD Negeri 15 Parepare. The research problem addressed in this study is: How can the implementation of the PBL model supported by audio-visual media improve the learning motivation of fourth-grade students in IPAS?

2. Research Method

2. 1. Research Design

This study employed a qualitative approach using Classroom Action Research (CAR). The qualitative approach was chosen to obtain an in-depth and descriptive understanding of the learning process and students' learning motivation in IPAS. Qualitative research produces descriptive data in the form of written or spoken words and observed behaviors, focusing on exploring real classroom phenomena rather than testing hypotheses.

The type of research applied was Classroom Action Research (CAR), which aims to improve the quality of the teaching and learning process through reflective cycles. This study adopted the Kemmis and McTaggart model, consisting of four stages: planning, action, observation, and reflection[6]. The research was conducted in two cycles, and each cycle consisted of two meetings. If the first cycle did not achieve the predetermined success indicators, improvements were implemented in the second cycle.

2. 2. Research Subjects and Data Sources

The subjects of this study were one fourth-grade teacher and 29 students (12 boys and 17 girls) of Grade IV at UPTD SD Negeri 15 Parepare during the 2025/2026 academic year. The researcher acted as the classroom teacher during the implementation of the action. The data sources consisted of primary and secondary data. Primary data were obtained from classroom observations and students' responses to the learning motivation questionnaire. Secondary data were collected through documentation, including lesson plans, students' score records, photographs, and other relevant documents.

Data collection techniques included observation, questionnaires, and documentation. Observation sheets were used to assess the implementation of the Problem Based Learning (PBL) model assisted by audio-visual media. The main instrument was a learning motivation

[5] Khamila Husna and Supriyadi Supriyadi, 'Peranan Manajeman Media Pembelajaran Untuk Meningkatkan Motivasi Belajar Siswa', *AL-MIKRAJ Jurnal Studi Islam Dan Humaniora (E-ISSN 2745-4584)*, 4.1 (2023), 981–90 <https://doi.org/10.37680/almikraj.v4i1.4273>.

[6] Stephen Kemmis and Robin McTaggart, 'The Action Research Planner', *Capítulo 1 Del Libro Del Mismo Nombre, Editado Por La Deakin University*, 1988, 1–16.

questionnaire developed based on Keller's ARCS model (Attention, Relevance, Confidence, and Satisfaction) using a five-point Likert scale. All instruments were validated through expert judgment to ensure content validity and clarity.

2. 3. Research Procedure and Data Analysis

The research process began with a preliminary study to identify classroom problems related to low learning motivation. Each cycle then followed four stages: planning (preparing teaching modules, materials, media, worksheets, and instruments), action (implementing the PBL model assisted by audio-visual media), observation (monitoring teacher and student activities), and reflection (evaluating results and determining improvements for the next cycle).

Data were analyzed using the interactive model of Miles and Huberman, which includes data condensation, data display, and conclusion drawing/verification. Triangulation was applied by comparing observation results, questionnaire data, and documentation to ensure credibility.

The analytical framework of this study focused on examining improvements in students' learning motivation through the implementation of the PBL model assisted by audio-visual media. The study was considered successful if the implementation of the learning process reached 76%–100% (good qualification) and at least 76% of students achieved a high level of learning motivation based on the ARCS motivation indicators.

3. Results and Discussion

The Results and Discussion section presents the main findings of the study in a systematic and integrated manner. The findings are described objectively based on data obtained during two cycles of Classroom Action Research conducted in Grade IV at UPTD SD Negeri 15 Parepare. The study involved 29 students in IPAS learning through the implementation of the Problem Based Learning (PBL) model assisted by audio-visual media. The presentation combines empirical findings with theoretical analysis to demonstrate the contribution of the study.

Table 1. Teacher and Student Activity in Cycles I and II

Cycle	Teacher Activity (%)	Qualification	Student Activity (%)	Qualification
I – Meeting 1	66,66	Fair	62,29	Fair
I – Meeting 2	73,33	Fair	69,19	Fair
II – Meeting 1	86,66	Good	76,55	Good
II – Meeting 2	93,33	Good	83,90	Good

The data in Table 1 show that teacher and student activities improved significantly from Cycle I to Cycle II. In Cycle I, the implementation of PBL had not yet met the predetermined success indicators (≥76%). Teacher activity ranged from 66.66% to 73.33%, while student activity ranged from 62.29% to 69.19%, both categorized as fair. These results indicate that students were still adapting to student-centered learning and collaborative problem-solving activities.

After reflection and improvement in Cycle II—such as strengthening individual guidance, improving classroom management, and optimizing the use of contextual audio-visual media—both teacher and student activities increased to the good category. Teacher activity reached 93.33%, while student activity reached 83.90%. This improvement demonstrates that systematic implementation of PBL can enhance classroom engagement.

Table 2. Students Learning Motivation Results

Cycle	Average Score	Motivation Category
Cycle I	72,96	Moderate
Cycle II	81,51	Very High

Table 2 indicates that students' learning motivation increased from an average score of 72.96 (moderate) in Cycle I to 81.51 (very high) in Cycle II. In Cycle I, several students were still categorized as having low or moderate motivation. However, in Cycle II, all students reached high or very high motivation levels.

This improvement can be explained using the ARCS motivational theory developed by John Keller, which emphasizes four components: *attention, relevance, confidence,* and *satisfaction*. The integration of PBL with audio-visual media successfully captured students' attention, connected learning material with real-life contexts, increased students' confidence in expressing ideas, and provided satisfaction through successful problem-solving experiences[7].

The findings also support the characteristics of PBL, who explains that PBL encourages active learning through authentic problem-solving and collaborative discussion[8]. Furthermore, the use of audio-visual media aligns, who states that audio-visual learning resources enhance motivation and engagement by providing concrete and meaningful learning experiences[9].

Conceptually, this study contributes to the understanding that integrating innovative instructional models with appropriate media strengthens intrinsic motivation in elementary science learning[10]. Practically, the findings suggest that elementary school teachers can effectively implement the PBL model assisted by audio-visual media to foster higher student engagement and motivation in IPAS.

Despite these positive results, this study has limitations. It was conducted in only one class with a limited number of participants and over a relatively short duration of two cycles. Therefore, further research with broader samples and longer implementation periods is recommended to enhance the generalizability of the findings.

Overall, the integrated analysis demonstrates that the implementation of the Problem Based Learning model assisted by audio-visual media significantly improved teacher performance, student participation, and learning motivation in IPAS learning for Grade IV students at UPTD SD Negeri 15 Parepare.

4. Conclusion

This study concludes that the implementation of the Problem Based Learning (PBL) model assisted by audio-visual media in IPAS learning on the topic *"Forces Around Us"* was carried out

[7] Aura Poulsen and others, 'ARCS Model of Motivational Design', *Development and Use of the ARCS Model of Motivational Design*, 2008, 177.

[8] Sarif Nirwana, Mira Azizah, and Hartati Hartati, 'Analisis Penerapan Problem Based Learning Berbantu Quizizz Pada Pembelajaran IPAS Kelas V Sekolah Dasar', *Jurnal Inovasi, Evaluasi Dan Pengembangan Pembelajaran (JIEPP)*, 4.1 (2024), 155–64 <https://doi.org/10.54371/jiepp.v4i1.396>.

[9] Syarifuddin and Eka Dewi Utari, 'Media Pembelajaran (Dari Masa Konvensional Hingga Masa Digital)', *Bening Media Publishing*, 18.1 (2022), 64–80.

[10] Fajar Prasetiawan, Muhammad Sofwan, and Bunga Ayu Wulandari, 'The Effect of Problem-Based Learning Model on Learning Motivation and Problem-Solving Skills of Fourth Grade Elementary School Students', *Journal of Innovation and Research in Primary Education*, 4.3 (2025), 543–56 <https://doi.org/10.56916/jirpe.v4i3.1403>.

in accordance with the PBL syntax and showed progressive improvement throughout the research cycles.

The findings confirm that integrating PBL with audio-visual media effectively enhances students' learning motivation, as reflected in increased engagement and motivation scores. This study provides empirical support for the use of innovative, student-centered models combined with relevant media to strengthen motivation in elementary science learning and offers practical guidance for teachers in improving instructional quality.

5. Acknowledgment

This research was supported by the Faculty of Teacher Training and Education, Universitas Muhammadiyah Parepare. The authors would like to express sincere gratitude to the principal and teachers of UPTD SD Negeri 15 Parepare for their cooperation and support during the implementation of this study. Appreciation is also extended to all fourth-grade students who participated actively in this research.

References

Agustin, Verra Triyanti, and Ila Israwaty, 'Peningkatan Hasil Belajar Siswa Materi Operasi Hitung Campuran Melalui Model Pembelajaran Based Learning', *Pinisi Journal PGSD*, 1 (2021), 1180–90

Husna, Khamila, and Supriyadi Supriyadi, 'Peranan Manajeman Media Pembelajaran Untuk Meningkatkan Motivasi Belajar Siswa', *AL-MIKRAJ Jurnal Studi Islam Dan Humaniora (E-ISSN 2745-4584)*, 4 (2023), 981–90 <https://doi.org/10.37680/almikraj.v4i1.4273>

Indonesia, Republik, 'Undang-Undang Nomor 20 Tahun 2003 Tentang Sistem Pendidikan Nasional', *Lembaran Negara Republik Indonesia Tahun 2003 Nomor 78*, 2 (2003), 39–45 <https://doi.org/10.24967/ekombis.v2i1.48>

Kemmis, Stephen, and Robin McTaggart, 'The Action Research Planner', *Capítulo 1 Del Libro Del Mismo Nombre, Editado Por La Deakin University*, 1988, 1–16

Nirwana, Sarif, Mira Azizah, and Hartati Hartati, 'Analisis Penerapan Problem Based Learning Berbantu Quizizz Pada Pembelajaran IPAS Kelas V Sekolah Dasar', *Jurnal Inovasi, Evaluasi Dan Pengembangan Pembelajaran (JIEPP)*, 4 (2024), 155–64 <https://doi.org/10.54371/jiepp.v4i1.396>

Poulsen, Aura, Khoa Lam, Sarah Cisneros, and Torrey Trust, 'ARCS Model of Motivational Design', *Development and Use of the ARCS Model of Motivational Design*, 2008, 177

Prasetiawan, Fajar, Muhammad Sofwan, and Bunga Ayu Wulandari, 'The Effect of Problem-Based Learning Model on Learning Motivation and Problem-Solving Skills of Fourth Grade Elementary School Students', *Journal of Innovation and Research in Primary Education*, 4 (2025), 543–56 <https://doi.org/10.56916/jirpe.v4i3.1403>

Pratiwi, Indira, and Mawardi, 'Penerapan Model Problem Based Learning Berbantuan Audio Visual Untuk Meningkatkan Kemampuan Berpikir Kritis Dan Hasil Belajar Siswa', *Journal of Education Action Research*, 6 (2022), 10132–38 <https://doi.org/10.54371/jiip.v6i12.2413>

Sari, Fransiska Faberta Kencana, and Idam Ragil Widianto Atmojo, 'Analisis Kebutuhan Bahan Ajar Digital Berbasis Flipbook Untuk Memberdayakan Keterampilan Abad 21 Peserta Didik Pada Pembelajaran IPA Sekolah Dasar', *Jurnal Basicedu*, 5 (2021), 6079–85

Syarifuddin, and Eka Dewi Utari, 'Media Pembelajaran (Dari Masa Konvensional Hingga Masa Digital)', *Bening Media Publishing*, 18 (2022), 64–80