

Analysis of Learning Methods in Science Subjects among Fifth-Grade Students at MIS Miftahul Huda 2 Palangka Raya

^{1*}Erinthy Artika, ²Istiyati Mahmudah, ³Noor Syifa, ⁴Yuskia Izzatul Jannah

^{1,2,3} State Islamic University of Palangka Raya, Indonesia

*E-mail: erinthyartikapky21@gmail.com ¹, istiyati.mahmudah@uinpalangkaraya.ac.id ²,
noorasyifa984@gmail.com ³, Yuskiaizzatul@gmail.com ⁴

Abstract

This study aims to analyze the application of learning methods in science subjects in grade V of MIS Miftahul Huda 2 Palangka Raya. This study uses a qualitative descriptive approach with research subjects being grade V science subject teachers at MIS Miftahul Huda 2 Palangka Raya. Data collection was conducted through semi-structured interviews to obtain information regarding the application of learning methods in the science learning process. Data analysis was carried out through the stages of data reduction, data presentation, and drawing conclusions. The results of the study indicate that teachers apply various learning methods, namely the lecture method, Project Based Learning (PjBL), and collaborative learning, which are adjusted to the characteristics of the material and the needs of students. Teachers also involve students in experimental activities, environmental observations, discussions, and the use of simple learning media, so that learning can take place more actively and meaningfully. However, teachers still face several obstacles, including limited facilities, the need to improve professional competence, and mastery of more innovative learning methods. Therefore, the application of varied learning methods needs to be supported by improving teacher competence and providing adequate learning facilities, so that science learning can take place more optimally.

Keywords : class V; elementary school; learning methods; science; qualitative research.

Received 24-04-2026, Accepted 24-07-2026, Published 08-08-2026



<https://doi.org/10.32665/jurmia.v6i2.6487>

Copyright© 2026, Erinthy Artika et al

This is an open-access article under the [CC-BY License](#).



INTRODUCTION

Learning methods refer to the approaches used to achieve predetermined goals . In the learning process, educators require a variety of learning methods to adapt them to the goals to be achieved after completing learning activities. (Lestari et al., 2023) . Have you ever wondered how important learning methods are in shaping how students understand the world around them? This reflective question points to a contemporary educational paradigm that positions students not merely as objects receiving data or knowledge, but as individuals who play an active role in shaping understanding through interactions with their environment, educators, and peers.

Learning methods are a crucial component in the implementation of the educational process , serving as a strategy or approach applied by teachers to convey information to students, thus maximizing learning objectives. Selecting the right method significantly impacts the success of the learning process, given that each student has unique characteristics, learning styles, and varying levels of understanding (Budiasningrum et al., 2025) . Therefore , educators are required to competently select and integrate various learning methods relevant to the conditions, characteristics, and needs of students. Variations in learning methods not only facilitate optimal understanding of the material for students but also encourage motivation and active participation of students in learning activities, thereby creating a more effective, engaging, and meaningful learning environment. This statement aligns with the view (Cahyani & Raharjo, 2024) that the better the quality of the learning methods and tools applied, the more effective the learning outcomes will be.

Theoretically, the diversity of learning methods aligns with Lev Vygotsky's theory of social constructivism, which states that knowledge is actively constructed through social interaction and scaffolding support from educators or more competent peers (Nurjamilah et al., 2025) . On the other hand, the differentiated learning approach in the Independent Curriculum also encourages educators to design flexible activities to accommodate the diversity of learning speeds, interests, and learning profiles of students. Without a variety of methods, the science learning process risks becoming trapped in the memorization of scientific facts without in-depth conceptual understanding . On the other hand, the differentiated learning approach in the Independent Curriculum also encourages educators to design flexible activities to accommodate the diversity of learning speeds, interests, and learning profiles of students. Without a variety of methods, the science learning process risks becoming trapped in the memorization of scientific facts without in-depth conceptual understanding.

In science learning , the application of appropriate learning methods not only serves to facilitate students in understanding science concepts , but also encourages their active involvement during the learning process. Learning approaches oriented towards active student participation have been proven to improve learning outcomes while deepening understanding of science concepts more optimally (Kusumawati, 2017) . Educators bear substantial responsibility to realize a relevant, innovative, and effective learning process for students, especially at the Madrasah Ibtidaiyah level. Madrasah Ibtidaiyah as a basic educational institution based on Islamic values, madrasah ibtidaiyah faces its own challenges in balancing mastery of modern science with the instillation of the values of monotheism and morals. Therefore, science learning methods in madrasahs need to be designed not only to develop scientific literacy, but also to foster a sense of gratitude, responsibility as caliphs on earth, and a critical attitude towards natural phenomena in the surrounding environment.

Student engagement does not arise spontaneously but is influenced by various factors, including the role of educators. Educators are the primary actors in direct contact with students during classroom learning activities (Fitrianti & Hidayati, 2025) . To achieve such learning, teachers need to implement methods that can stimulate active student involvement, such as project-based learning, experiments, group discussions, and utilizing the environment as a learning resource. Through various methods, this is in line with the opinion (Napisah & Mahmudah, 2024) that the learning approach is carried out through observation, interviews, and providing guidance tailored to the individual needs of students, such as observing student behavior during learning, recognizing their temperament and social environment, and discussing with parents. The application of various learning methods allows students to be directly involved in the scientific process, starting from observation, asking questions, experiments, and drawing conclusions. Through this approach , students not only passively obtain information, but actively formulate their own understanding through real-life learning experiences. The application of diverse learning methods also allows for accommodation of students' differing learning styles, so that each individual has an equal opportunity to optimally understand the material. One strategy for achieving learning objectives is the educator's ability to design a meaningful learning process for students, encouraging their active participation and creativity in understanding the material presented. (Aji et al., 2025) . Therefore, the creativity and innovation of educators in selecting and developing learning methods is the main key to improving the quality of science learning in Madrasah Ibtidaiyah.

Teacher creativity in this context is not limited to the use of advanced technology, but also includes the ability to design simple, contextual activities, utilize local materials, and connect the integration of materials to the realities of students' daily lives (Astuti, 2023) . This kind of pedagogical innovation is highly significant amidst the budget constraints often faced by madrasahs, while also proving that meaningful learning does not always depend on luxurious facilities, but rather on teachers' readiness to design authentic and relevant learning experiences.

This article focuses on science teaching practices in fifth grade at MIS Miftahul Huda 2 Palangka Raya. Teachers at this madrasah use a variety of methods, such as lectures, project-based learning, and collaborative approaches, to enhance student interaction, communication, and creativity. (Mahdalena, 2020) in the context of basic education, teachers need to use learning methods that not only convey information, but are also able to foster students' curiosity and creativity through enjoyable learning experiences .

Class V was chosen as the focus of the research because at this stage students have entered the concrete operational stage according to Jean Piaget, where they begin to be able to think logically about concrete objects, group elements, and understand cause-effect relationships. (Susanto et al., 2024) . This phase is a critical moment to strengthen science process skills before entering more abstract levels. Therefore, the learning methods used need to facilitate the transition from memorization-based learning to investigation- and reflection-based learning.

Furthermore, they often utilize their surroundings as a learning resource to create more relevant and meaningful learning. An environment that encourages exploration and hands-on learning can help children develop a solid foundation of knowledge and skills as they grow and develop. (Suhayati & Watini, 2024) . However, the implementation of this strategy still faces several obstacles, such as limited time, minimal resources, and the urgency to create more creative approaches. In line with

(Supriyati, 2015) , challenges in implementing innovative learning methods are often related to limited resources and time, which require effective management strategies from educators.

In addition to external factors, internal challenges also arise from the high administrative burden on teachers, the lack of ongoing training, and the pressure to complete curriculum targets within a limited timeframe. This often leads teachers to revert to conventional methods despite recognizing the importance of a more participatory approach. Therefore, systemic support is needed in the form of realistic time allocation, the provision of adaptable teaching modules, and collaborative spaces among educators to share best practices. This study aims to investigate the level of implementation of relevant learning methods in science teaching at the madrasah. It also explores how these methods can improve student motivation, engagement, and understanding. The findings are expected to provide practical benefits, such as providing guidance for educators to refine more innovative and efficient learning methods.

Specifically , this study answers three main questions: (1) What learning methods are predominantly applied by fifth-grade science teachers at MIS Miftahul Huda 2 Palangka Raya? (2) What are teachers' perceptions of the effectiveness of these methods in increasing student engagement and understanding? (3) What supporting and inhibiting factors influence the application of innovative methods in science learning at the madrasah? The answers to these questions are expected to be an empirical reference for the development of educator professionalism and the improvement of learning policies at the madrasah level.

With a comprehensive approach, this article aims to provide a real contribution in improving the quality of science learning, so that it can form a generation that not only masters science, but also has an awareness to... applying it in everyday life Furthermore, this research contribution is also expected to enrich the literature on science education in the context of Indonesian madrasahs, which is still relatively limited compared to research in public schools. By documenting the actual practices of teachers in the field, this article seeks to bridge the gap between pedagogical theory and classroom reality, while also inspiring other researchers to continue similar explorations in different regions and levels of education.

RESEARCH METHODS

This study employed a qualitative descriptive method, collecting data through in-depth interviews . A qualitative research approach, particularly through in-depth interviews, provides researchers with the opportunity to explore information in detail and fully understand the research subjects' perspectives (Putri, 2021) . The research subjects consisted of educators who teach fifth-grade science at MIS Miftahul Huda 2 Palangka Raya. Semi-structured interviews were conducted to gather in-depth information about the learning methods applied, the reasons for their selection, and various obstacles encountered during the learning process . Furthermore, the findings of this study indicate that educator flexibility in selecting and integrating learning methods is a crucial factor in the success of the learning process in the classroom (Hasanah et al., 2025) .

A descriptive qualitative approach was chosen because this research focused on gaining an in-depth understanding of complex socio-pedagogical phenomena, rather than on hypothesis testing or statistical generalization. This design allowed researchers to capture the nuances of the madrasah context, the dynamics of teacher-student interactions, and the meanings teachers attach to their teaching practices. Semi-

structured interviews provided a balance between core question structure and the flexibility to explore responses that emerged spontaneously during the dialogue.

Interview questions focused on teaching practices, the use of instructional media, and strategies used to adapt learning to student characteristics. Interview results indicated that teachers utilize a variety of methods, such as lectures, project-based learning, and collaborative learning, which are considered effective in enhancing student interaction and creativity. Teachers who are able to align learning strategies with student conditions and needs tend to produce more effective and participatory learning.

Teachers also frequently involve students in hands-on activities, such as experiments or observations of the surrounding environment, to make learning more meaningful. In science learning, active student participation in practical activities, such as experiments and environmental observations, plays an essential role in improving conceptual understanding and the relevance of learning (Fitriyanti, 2022) . Hands-on activities not only serve as demonstration tools but also as a forum for developing science process skills (SPS) such as observing, measuring, classifying, predicting, and communicating results. Student involvement in these various activities can also improve science process skills, such as observing , classifying, measuring, and drawing conclusions (Yulianti et al., 2026) .

Educators stated that limited time and resources are major obstacles to implementing more innovative learning methods. The obstacles educators face in implementing innovative learning methods are often closely related to limited time and resources, which can hinder the effectiveness of teaching. (Maesaroh, 2022) . This research supports the importance of developing teacher competencies to create relevant and engaging learning, as suggested by the relevant literature. Therefore, schools need to provide adequate infrastructure and ongoing training for teachers to improve the quality of science learning in elementary schools. (Hanif & Astriani, 2024) .

RESULTS AND DISCUSSION

Based on the results of interviews with fifth-grade science teachers at MIS Miftahul Huda 2 Palangka Raya, information was obtained that teachers apply various learning methods tailored to the characteristics of the material and the learning needs of students. In its implementation, teachers are not fixated on one learning method, but rather integrate several methods to create a more active, interactive, and meaningful learning process. The results of the interviews also showed that the learning methods most frequently applied in science learning include lectures, Project Based Learning (PjBL), and collaborative learning. The selection of these methods is based on learning objectives, material characteristics, and student conditions in the classroom, so that the delivery of material can take place more effectively and support the achievement of learning objectives optimally.

Teachers strive to implement learning methods deemed capable of creating a more active learning environment, so that students not only act as recipients of information but also actively participate in various learning activities. The findings of this study indicate that the application of diverse learning methods is one strategy used by teachers to create a more engaging, interactive, and student-oriented Natural Science (IPA) learning experience. These research findings align with the opinion of (Gunawan & Mahmudah, 2023) who stated that the application of varied learning methods can increase learning motivation and encourage active student involvement in the implementation of Natural Science (IPA) learning.

Based on the interview results, it was found that teachers have a number of considerations in determining the learning methods applied. It was explained that the selection of lecture methods, project-based learning, and collaborative learning was based on the consideration that these three methods were considered more effective in building interaction and communication with students, while also being able to encourage the growth of their creativity during the learning process. Furthermore, teachers stated that the application of varied learning methods makes it easier for students to understand the material, considering that they do not merely play the role of listening to explanations, but are also directly involved in various learning activities. These findings indicate that teachers view the learning process as one that positions students as active subjects, not merely as passive recipients of information.

These findings indicate that the selection of learning methods is not solely based on practical aspects for teachers in delivering material, but also considers the level of student engagement during the learning process. The interaction established between teachers and students is a crucial indicator of effective learning. Through good communication, students have the opportunity to ask questions, express their opinions, and collaborate with classmates in completing various learning activities. This environment contributes to a more conducive learning environment and encourages students to play a more active role in constructing their own understanding. The results of this study are in line with (Budiassingrum et al., 2025) which states that the application of appropriate learning methods can increase interest in learning as well as student involvement in the learning process.

In addition to the lecture method, teachers also use project-based learning (PBL) in the learning process. Based on interviews, it was found that the implementation of project-based learning begins with the formulation of basic questions tailored to the material being studied. Next, the teacher and students develop a project plan, determine the implementation schedule, monitor the project progress, and provide an assessment of the completed project results. Teachers also provide opportunities for students to identify problems that arise during the learning process, then formulate a number of alternative solutions based on the results of the joint discussion (Sutrisno et al., 2025). These stages show that students are actively involved from the planning process to the completion of the project, so that they are not only oriented towards the final result, but also gain meaningful learning experiences during the process.

The implementation of project-based learning provides space for students to develop critical thinking skills, collaborate, and solve problems related to Natural Science (IPA) material. Through these activities, students are encouraged to relate the concepts learned to various situations encountered in everyday life. In its implementation, the teacher acts as a facilitator who guides the project, while students actively participate in designing, implementing, and presenting the results of the activities that have been carried out. To support the creation of active learning, teachers often involve students in practical activities and direct observations in the surrounding environment. This has proven effective, given that direct mentoring activities have a positive influence on improving student competency (Annisa & Mahmudah, 2024). This condition indicates that project-based learning is able to create a more meaningful learning experience than learning that only focuses on the delivery of material. This finding supports the opinion (Kusumawati et al., 2017) that learning that actively involves students is more effective in improving understanding of science concepts than passive learning.

Based on the interview results, it was discovered that teachers not only base their choice of learning methods on the characteristics of the material, but also consider the characteristics of the students. It was explained that the process of recognizing student characteristics is carried out through several efforts, including observing student behavior during the learning process, recognizing each student's temperament, building direct communication, understanding the students' social environment, and discussing with parents when necessary. The involvement of parents in overseeing their children's learning process is a crucial factor that can significantly encourage an increase in students' academic achievement. (Rahmawati & Mufidah, 2025) . Additionally, teachers involve students in self-introduction activities as a way to understand each individual's learning needs. This approach helps teachers determine learning methods that are appropriate to the students' abilities and conditions, thus enabling a more effective learning process.

These findings indicate that teachers have implemented student-centered learning. Identifying student characteristics before determining learning methods is a crucial step in realizing an inclusive learning process and providing equal opportunities for all students to understand the material according to their individual abilities. By understanding these student characteristics, teachers can determine more targeted learning methods, preventing the learning process from becoming monotonous. The results of this study are in line with (Fitrianti & Hidayati, 2025) which states that teachers have an important role in creating learning that is able to accommodate the needs and characteristics of students through the selection of appropriate learning strategies.

In science instruction, teachers provide opportunities for students to actively participate through various learning activities. Interviews revealed that frequently conducted activities include simple experiments, observing the surrounding environment, showing experimental videos, and presenting observations or work to teachers and classmates. These various activities are designed to provide students with hands-on learning experiences and not solely rely on teacher explanations in class.

Interview results indicate that experimental activities are one of the most frequently implemented activities in science learning. Teachers utilize simple practical activities with the aim of allowing students to observe a scientific concept or phenomenon directly. In addition to experimental activities, students are also directed to make observations of the environment around their homes and schools, such as observing weather conditions, plants, animals, and various other natural phenomena. Teachers also utilize experimental video media as an alternative in certain conditions when practical activities are not possible to carry out directly. After the learning activity ends, students are asked to submit the results of their observations or work that they have created in the form of a report or simple presentation. This series of activities shows that science learning not only emphasizes mastery of concepts, but also trains the ability to observe, communicate results, and express opinions based on the facts found.

These findings indicate that teachers have attempted to implement contextual learning by providing students with direct learning experiences. Through experiments and observations, students have the opportunity to build understanding based on real-life experiences, making science concepts easier to grasp. Students' active involvement during the learning process also provides them with opportunities to develop critical thinking skills, observation skills, and the ability to communicate the results of their observations. These research findings support the theory. (Mulia & Murni, 2022)

which states that practical activities in science learning play an important role in increasing conceptual understanding as well as developing students' science process skills.

In addition to utilizing various learning activities, teachers also utilize learning media to support the delivery of material. Based on interviews, it was discovered that the media used were simple teaching aids made from readily available materials, such as used bottles, balloons, straws, and rubber bands, to explain the human respiratory system. It was explained that the use of these teaching aids was intended to make it easier for students to understand abstract material through simple, easily observed visual forms.

The use of simple learning media shows that limited facilities are not an obstacle for teachers in creating engaging learning. Teachers utilize materials available in the surrounding environment as learning media, so that students can relate science concepts to everyday life. This strategy also provides opportunities for students to be more active during the learning process, considering they can directly observe how the teaching aids work. This finding indicates that learning effectiveness is not always determined by the use of modern media, but rather is more influenced by the teacher's ability to select and utilize media that are appropriate to learning objectives (Astuti et al., 2023), which states that teacher creativity in utilizing simple learning media can create more contextual and meaningful learning for students.

Interview results also showed that teachers almost always involve students in practical activities and direct observations during science lessons. According to teachers, practical activities are a crucial part of the learning process, as they provide students with the opportunity to experience the science concepts they are studying firsthand. Through these activities, students not only gain theoretical knowledge but also are able to relate the learning material to real-world situations in their surroundings.

Student involvement in practical activities and observations provides a more meaningful learning experience than learning that focuses solely on teacher explanations. Through these hands-on experiences, students can develop their ability to observe, identify problems, and draw conclusions based on the facts discovered during the learning process. In addition to enhancing conceptual understanding, these activities also foster curiosity and concern for their surroundings. This finding strengthens the opinion (Rohayati et al., 2018) which states that the surrounding environment is an effective learning resource to support science learning because it is able to provide authentic learning experiences to students.

Based on the interview results, it was found that teachers evaluate students' understanding through their ability to re-explain the material they have learned and implement the concepts in everyday life. Teachers assess that students have understood the material if they are able to re-explain the concept using their own language and demonstrate behavioral changes appropriate to the material learned. In the respiratory organ material, for example, teachers observed changes in students' behavior in maintaining respiratory health after participating in the learning process. According to the teachers, these changes are one indicator that the learning that has been implemented has had a positive impact on students' understanding.

These findings indicate that learning evaluation is not solely oriented toward achieving cognitive aspects through the ability to memorize material, but also considers the application of knowledge in everyday life. Teachers view the success of science learning as being determined by students' ability to connect scientific concepts to real-

world activities. This evaluation approach provides a more comprehensive picture of students' level of understanding, considering that learning outcomes are measured not only through written answers but also through behavioral changes and the ability to apply knowledge to relevant situations. This finding is in line with (Islahudin et al., 2022) which states that learning that actively involves students will more easily form conceptual understanding while encouraging the application of knowledge in everyday life.

The teacher also stated that the learning methods currently being implemented are considered quite effective in supporting the science learning process. This effectiveness is reflected not only in increased student participation during the learning process, but also in their ability to participate in practical activities, discussions, and demonstrate changes in attitude in accordance with the material being studied. According to the teacher, the application of varied methods makes students more enthusiastic in participating in learning compared to using only the continuous lecture method. This condition indicates that a variety of learning methods can provide a more interesting learning experience, thereby increasing student engagement in each learning activity.

However, interviews revealed that teachers still face several obstacles in implementing various science learning methods. One of the main challenges they face is the need to continually expand their knowledge, develop creativity in designing lessons, and master various learning methods that align with current educational developments. According to teachers, these skills need to be continuously developed so that science learning can be more engaging and tailored to student characteristics.

These findings indicate that the success of using learning methods is not only influenced by the characteristics of the students, but also depends on the professional competence of the teacher. (Djalo et al., 2024) shows that improving teacher professional competence is an essential aspect for realizing an innovative and engaging learning process. Teachers are required to continuously update their knowledge and develop pedagogical skills to be able to choose learning methods that are relevant to developments in science and technology. Therefore, developing teacher competence is an important factor in improving the quality of science learning in Madrasah Ibtidaiyah. The results of this study are in line with (Khalisatun Husna, 2023) who explained that educational transformation in the digital era requires teachers to continuously improve their professional competence to be able to develop innovative learning. This statement is in line with the view (Mahmudah et al., 2023) who stated that the professional competence of educators is the main determining factor in realizing innovative learning, because competent educators are able to develop learning strategies that are interesting, contextual, and appropriate to the needs of students.

In addition to these obstacles, teachers also expressed their desire to implement integrated learning methods in science lessons. However, these methods have not been optimally implemented due to the need for teacher preparedness and adequate facilities and infrastructure. Teachers hope for more comprehensive learning facilities so that various learning methods can be optimally implemented according to the characteristics of the material being taught. Such support is considered crucial to help teachers develop more innovative learning and provide more meaningful learning experiences for students.

These teachers' expectations indicate that improving the quality of science learning requires support from various parties, both teachers and schools. Teacher creativity in selecting learning methods needs to be balanced with the availability of

facilities that support the implementation of learning activities. This is in line with the opinion (Masrdah et al., 2025) that teachers' teaching styles impact students' enthusiasm for learning during learning activities. With this support, teachers have wider opportunities to apply various learning methods that are appropriate to student characteristics so that learning objectives can be optimally achieved. This finding aligns with (Hanif & Astriani, 2024) who stated that the availability of learning facilities and infrastructure is one of the factors supporting the success of the learning process in schools. According to (Amaliyah & Rahmat, 2021) Educators play a crucial role in providing guidance and support to students through various activities designed to enhance their self-understanding, thereby supporting personal growth.

Overall, the results of the study indicate that the use of science learning methods in class V of MIS Miftahul Huda 2 Palangka Raya has been implemented by utilizing various methods adapted to the characteristics of the material and the needs of students. Teachers not only use lecture methods, but also apply project-based learning, collaborative learning, experimental activities, environmental observations, and the use of simple learning media to create more meaningful learning. Although there are still several obstacles, especially related to the development of teacher competencies and limited facilities, the various methods used have made a positive contribution to increasing student engagement in the science learning process. These findings indicate that the success of learning is not only determined by the methods used, but also by the teacher's ability to select, adapt, and combine various learning methods according to the learning objectives and characteristics of students.

CONCLUSION AND SUGGESTIONS

Based on the research results, it can be concluded that the application of learning methods in science subjects in grade V of MIS Miftahul Huda 2 Palangka Raya was carried out by combining several methods, namely the lecture method, Project Based Learning (PjBL), and collaborative learning. The selection of these methods was adjusted to the characteristics of the material and the needs of students so that the learning process can take place more effectively and is able to increase student engagement in learning activities.

The research also showed that teachers adapted learning methods to student characteristics through behavioral observations, direct communication, and discussions with parents. During the learning process, students were actively involved through experiments, environmental observations, discussions, presentations of learning outcomes, and the use of simple learning media utilizing materials found in the surrounding environment. These activities provided a more meaningful learning experience and helped students understand science concepts more concretely.

Learning evaluation is carried out through students' ability to re-explain the material they have learned and apply it to their daily lives. Although the implementation of the learning method is considered quite effective, this study also found several obstacles faced by teachers, namely limited learning facilities, the need to improve professional competence, and the need to master and develop more innovative learning methods. Therefore, the implementation of varied learning methods needs to be supported by improving teacher competence and providing adequate learning facilities, so that science learning in Madrasah Ibtidaiyah can take place more optimally.

Based on the research results, teachers are expected to continue improving their professional competencies, particularly in selecting and developing innovative learning methods appropriate to the characteristics of students and learning materials. Schools

are also expected to provide support by providing adequate facilities and infrastructure and facilitating training for teachers, so that the implementation of various learning methods can run more optimally. Furthermore, further research is recommended to involve more research subjects and use a wider range of data collection techniques, such as observation and documentation, so as to provide a more comprehensive picture of the implementation of science learning methods in Madrasah Ibtidaiyah.

THANK-YOU NOTE

The author expresses his deepest gratitude to all parties who have provided assistance in the process of compiling this article. Special thanks are extended to the course supervisor who provided guidance and direction, and to MIS Miftahul Huda 2 Palangka Raya for granting permission and the opportunity to conduct this research. The author also expresses his appreciation to the teachers and all parties who have volunteered to be research respondents and provided invaluable information. Hopefully, this article can make a positive contribution to the development of learning, particularly in the field of science education in Madrasah Ibtidaiyah.

REFERENCE

- Aji, WKP, Sulistyowati, & Mahmudah, I. (2025). Improving Student Learning Outcomes Using the Scramble Type Cooperative Model Assisted by Question Card Media. *Journal of Social, Humanities, and Educational Research* , 4 (1), 238–248. <https://doi.org/10.58192/Sidu.V4i1.3164>
- Amaliyah, A., & Rahmat, A. (2021). Developing Students' Potential Through the Educational Process. *Attadib: Journal of Elementary Education* , 5 (1), 28. <https://doi.org/10.32507/Attadib.V5i1.926>
- Annisa, DR, & Mahmudah, I. (2024). Beginning Reading Assistance Using the Spelling Method for Grade I Students of MIN 2 Palangka Raya City. *Indonesian Community Service Journal* , 2 (2), 14–19.
- Astiti, Kadek Ayu. (2023). Training in Designing Contextual-Based Learning for Science Teachers. *Indonesian Journal of Community Service* , 4 (4), 4920–4929. <https://doi.org/10.55338/jpkmn.V4i4.2288>
- Budiasningrum, RS, Setiawan, J., & Efendi, AS (2025). The Importance of Selecting Learning Methods in Increasing Student Learning Interest. *Journal of Educational Innovation & Teaching* , 5 (2), 295–304. <https://doi.org/10.51878/Educational.V5i2.5017>
- Cahyani, EPN, & Raharjo, RP (2024). The Learning Process of Indonesian Cultural Wealth Material at Pakel Elementary School, Trenggalek Using Picture Media. *Journal of Elementary School Research* , 4 (1), 96–106.
- Djalo, A., Missa, H., Ndukang, S., Nabu, A., Klau, OS, Nau, ME, & Baunsel, AB (2024). Improving Science Teacher Competence at SMP Negeri 2 Kupang Tengah Through Innovative Learning Model Training . 5 (3), 3706–3715.
- Fitrianti, & Hidayati, N. (2025). The Role of Teachers in Increasing Student Learning Engagement in the Classroom. *Damhil Education Journal* , 1 (5), 64–73. <https://doi.org/10.37905/Dej.V5i1.2788>

- Fitriyanti, R. (2022). *The Effectiveness of Interpersonal Communication of the Principal at Mts N 1 Ogan Komering Ilir* . Jakarta , 9.
- Gunawan, MA, & Mahmudah, U. (2023). Improving Integrated Science and Social Studies (IPAs) Education in Elementary Madrasahs: Implementing Hypnoteaching as an Innovative Alternative Learning Method. *2nd Annual International Conference on Islamic Education and Language (Aiciel) 2023* , Muspiroh 2015 , 441–456.
- Hanif, Muhammad Ssabar, & Astriani, L. (2024). Efforts to Provide Facilities and Infrastructure for Learning Activities of Grade 1 Students at Sdn Benda Baru 03. *National Seminar and Scientific Publication* , 636–641.
- Hasanah, U., Masitoh, S., Dealova, Zahra Khairul, Yunus, M., Frimananda, Gilang Restu, & Prihantini. (2025). Factors Supporting Success in the Learning Process of Elementary School Students. *Journal of Education and Teaching Review* , 8 (1), 1184–1188.
- Islahudin, I., Isnaini, M., & Hidayat, S. (2022). *As an Alternative Learning Media for Elementary School Teachers 2 Aisyiyah Mataram* . 6 (September), 1468–1472.
- Khalisatun Husna, Farras Fadhilah, Ulfa Hayana Sari Harahap, Muhammad Arby Fahrezi, Khalid Samahangga Manik, M. Yasir Ardiansyah, & Inom Nasution. (2023). Transformation of Teachers' Roles in the Digital Era: Challenges and Opportunities. *Perspective: Journal of Education and Language Studies* , 1 (4), 154–167. <https://doi.org/10.59059/Perspektif.V1i4.694>
- Kusumawati, N. (2017). The Effect of the Cooperative Learning Model with Snowball Throwing on Science Learning Outcomes of Fourth Grade Students at Bondrang Elementary School, Sawoo District, Ponorogo Regency. *Ibriez: Journal of Science-Based Islamic Elementary Education* , 2 (1), 1–12. <https://doi.org/10.21154/Ibriez.V2i1.19>
- Lestari, NC, Hidayah, Y., & Zannah, F. (2023). Application of Educational Game Learning Methods to Science Learning Outcomes at Sdn 1 Sungai Miai 7 Banjarmasin. *Journal on Education* , 5 (3), 7095–7103. <https://doi.org/10.31004/Joe.V5i3.1497>
- Maesaroh, RF (2022). *Analysis of Students' Learning Interest in Science Subjects, Wave Vibrations, and Sound, Class VIII, Smpn 2 Genteng Banyuwangi* .
- Mahdalena. (2020). Product-Based Science Learning Strategy. *Unhp* . <https://jurnal.uhnp.ac.id/psn-uhnp/article/download/106/102/227>
- Mahmudah, I., Sulistyowati, & Jasiah. (2023). Teacher Preparation Assistance in Implementing the Independent Curriculum at MI Fathl Iman Palangka Raya. *Indonesian Community Service Journal* , 3 (2), 727–732.
- Masrdah, U., Supriadi, G., & Mahmudah, I. (2025). The Influence of Teacher Teaching Style on Student Learning Motivation in Social Sciences Subject of Grade V. *Journal of Informatics Media* , 6 (3), 1687–1696.
- Mulia, S., & Murni, S. (2022). Implications of Natural Science Practical Learning on Students' Cognitive Development. *Science Education Research (Search) Journal* , 1–11.
- Napisah, N., & Mahmudah, I. (2024). Optimizing the Literacy of Grade II Students

- Through Reading Tutoring Min 2 Palangka Raya City. *Journal of Community Service*, 3 (2), 21–32.
- Nurjamilah, Rizki, Salsabila Alfiatur, Bik, M. Tizani Nawa, & Susanti, E. (2025). Constructivist Learning Theory. *Journal of Social Humanities Education*, 4 (4), 6867–6882.
- Putri, WR (2021). *Analysis of Teachers' Beliefs About Students' Scientific Creativity in Science Learning (Case Study of the Junior High School Science Mgmp Forum in... April*.
[Http://Etheses.iainponorogo.Ac.Id/Id/Eprint/14119%0ahttp://Etheses.iainponorogo.Ac.Id/14119/1/Skripsi 211317079 Widya Retno Putri.Pdf](http://Etheses.iainponorogo.Ac.Id/Id/Eprint/14119%0ahttp://Etheses.iainponorogo.Ac.Id/14119/1/Skripsi%20211317079%20Widya%20Retno%20Putri.Pdf)
- Rahmawati, M., & Mufidah, VN (2025). Parental Involvement Strategies for the Academic Achievement of Ra Bait Al-Arqam Students. *Journal of Islamic Education*, 3 (2), 99–111. <https://Doi.Org/Https://Doi.Org/10.61104/Ihsan.V3i2.771>
- Rohayati, H. (2018). Utilizing the Surrounding Environment as a Supporting Medium for Science Learning to Improve Student Learning Outcomes at Sdn 263 Rancaloa. *Jurnal Elementaria Edukasia*, 1 (1), 94–100.
<https://Doi.Org/10.31949/Jee.V1i1.811>
- Suhayati, Y., & Watini, S. (2024). Implementation of the Fun Model in Improving Science Literacy by Utilizing the Surrounding Environment in Early Childhood. *Journal of Teacher Studies and Learning*, 7 (2), 562–578.
- Supriyati. (2015). Science Learning for Elementary School Children Using a Scientific Approach. *Elementary: Islamic Teacher Journal*, 1 (2), 45–51.
- Susanto, AH, Wulandari, MD, & Darsinah. (2024). Optimizing Elementary School Children's Learning Through Understanding Jean Piaget's Cognitive Development Theory. *Scientific Journal of Elementary Education*, 09 (04), 689–706.
- Suttriso, S., Shalihah, F. R., & Fithriyah, D. N. (2025). Development of Role Playing Based on Traffic Sign Miniature Learning Media in Elementary Schools. *Indonesian Journal of Education Methods Development*, 20(2), 10-21070.
- Widayanti, UA, Pratiwi, AF, & Rofisian, N. (2023). Analysis of the Demonstration Method for Learning Science on Changes in the Form of Objects for Class IV MI Al-Ma'arif Drono. *Journal of Educational Technology and Learning | E-Issn: 3026-6629*, 1 (2), 261–265.
- Yulianti, E., Kasmini, L., & Sari, SM (2026). Rainbow Practicum as an Effort to Strengthen Science Process Skills in Science Learning at Orbit School Aceh Besar Islamic Nature School. *Jurnal Ilmiahpendidikan Dasar*, 11 (01), 121–135.
[Https://Doi.Org/Https://Doi.Org/10.23969/Jp.V11i01.42010](https://Doi.Org/Https://Doi.Org/10.23969/Jp.V11i01.42010)