

# The Role of Teachers in Implementing the Independent Curriculum to Improve Science Learning Activities

**Retno Purwanti<sup>1</sup>**

Universitas Muhammadiyah Metro, Indonesia

[Retnopurwanti574@gmail.com](mailto:Retnopurwanti574@gmail.com)

**Dedy Subandowo<sup>2</sup>**

Pázmány Péter Catholic University, Hungaria

[subandowo.dedy@hallgato.ppke.hu](mailto:subandowo.dedy@hallgato.ppke.hu)

## Abstract

This research seeks to explore how the Independence Curriculum is applied in Science (IPA) education and to examine the challenges teachers encounter during its implementation. The study adopted a qualitative descriptive design, gathering data through classroom observations and in-depth interviews with science educators at the lower secondary school level. The results of the study show a significant difference between schools where teachers understand the Independent Curriculum and those where teachers have not fully grasped the curriculum. Teachers who understand the curriculum are able to design project-based learning, apply formative assessments, and link materials to local contexts and the Pancasila Student Profile. Meanwhile, teachers who have not fully understood the curriculum still use conventional approaches focused on lectures and memorization. The main challenges identified include the lack of practical training, limited learning resources, high administrative burdens, and the unchanged mindset of teachers. This study recommends continuous and contextual professional development for teachers, strengthening the contribution of school leadership to the development of an independent learning culture, the development of science teacher practitioner communities, multilevel collaboration between schools, education offices, and educational partners, as well as adaptive assessment and oversight that drive continual progress are necessary to ensure the Independent Curriculum is effectively adopted in science education settings.

**Keywords:** merdeka curriculum; science education; implementation; challenges; teacher professional development

## INTRODUCTION

The formation of competent and skilled human resources is heavily influenced by the standard of educational outcomes. Recognizing the importance of quality education, the state uses this need as a foundation to realize its educational goals. The 1945 Constitution explicitly states that Indonesia's educational objectives focus on educate the people's lives. The future of education is planned through the curriculum used by educational units today. Therefore, the

Independent Curriculum is expected to be able to make education in Indonesia more inclusive, creative, and aligned with students' needs (Ripandi, 2023).

One of the efforts of the Indonesian government in preparing students to face the challenges of the 21st century, through the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek), is to launch the Independent Curriculum on February 11, 2021 referring to Ministerial Decree No. 56/M/2022 issued by the Ministry of Education, Culture, Research, and Technology, which outlines the guidelines for curriculum implementation as part of learning recovery efforts.

As an educational model, the Independent Curriculum offers autonomy to educators and learners in selecting instructional methods tailored to their specific characteristics and learning preferences. The Independent Curriculum was developed in Indonesia as a strategic response to the inflexibility and structural constraints of the traditional educational model. The Independent Curriculum has a number of characteristics that distinguish it from the previous curriculum. One of the main characteristics is flexibility in delivering material. Educators under the Independent Curriculum have the flexibility to choose teaching methods and strategies that best respond to learners' diverse needs. By doing so, educators are able to adapt instruction based on local circumstances and learner diversity, making the learning process more meaningful and appealing (Fauzan Novansyah, 2022). According to the Ministry of Education and Culture of the Republic of Indonesia, the Independent Curriculum is designed to foster a learning environment that is both inclusive and responsive to diverse learner needs, with a focus on developing student competencies and character (Indonesian Education Annual Report, 2021). In practice, the Independent Curriculum prioritizes a more contextual and project-based approach. This model promotes student-centered learning, allowing them to think critically and utilize knowledge in practical and contextual settings. For example, in science learning, students can conduct direct experiments in the laboratory or in their surroundings, so that they can better understand scientific concepts.

While the Independent Curriculum is being carried out in Junior High School (SMP) settings, especially for Natural Science (IPA) lessons, it has a strategic role in developing students' scientific mindset and problem-solving skills. IPA is not just a transfer of knowledge, but also invites students to think critically and understand the world through observation, experimentation, and analysis. However, the implementation of effective science learning requires the role of teachers who are not only teachers, but also facilitators and motivators who can support students in exploring science in a deeper and more meaningful way. The role and expertise of teachers are increasing as a result of new developments in teaching and learning (Fatmawati, 2021). This is due to the significant impact that teachers's roles and professional competencies have on students' academic achievement throughout the learning process.

Teachers are entrusted with the task of integrating the curriculum's principles into their instructional strategies, including the freedom for students to develop their understanding through relevant and interactive learning experiences. On the other hand, the integration of the Independent Curriculum into educational practice is also accompanied by various challenges. Teachers are required to be able to design flexible and diverse learning, according to student needs and the characteristics of science material. Teacher readiness in this case includes pedagogical skills, understanding of new curriculum concepts, and the ability to facilitate student-oriented learning processes.

Teacher activity in packaging lesson plans also greatly influences increasing student activity. A study conducted by Hilfa (2020) stated that there is an impression that most students do not like science lessons, because the science lessons they get at school are still conventional. This shows that teachers need to carry out active and creative learning so that students are motivated to learn science.

Abdurrahman's research (2023) it was identified that several factors supported The integration of the Independent Curriculum in Grade I of SD Alam Bengawan Solo, namely support from the government because there were similarities in practice with nature schools. While there were 3 inhibiting factors, namely teachers, students, and parents.

Next is the research of Rahayu, et al. (2022) Which details the application and practical integration of the Independent Curriculum in government-designated driving schools. This study reveals that the curriculum has been implemented effectively and is currently ongoing in driving schools, despite the presence of several shortcomings and operational barriers.

Implementing the curriculum effectively in driving schools requires a strong commitment from both the principal and teachers to initiate transformation. The principal, as a central figure, must foster a change-oriented mindset among school stakeholders to enable the realization of the Independent Curriculum.

In practice, the application of the Independent Curriculum in junior high school science classes is still hindered by various obstacles. Some of the obstacles encountered include (1) Low awareness and understanding of the Independent Curriculum framework, (2) Difficulty in Adapting the Role as a Facilitator, (3) Challenges in Designing Contextual and Student-Centered Learning, (4) Limitations in Implementing Flexible Learning, (5) Lack of Support for Training and Professional Development, (6) Limitations in Managing Diverse Classes, (7) Lack of Access to Learning Resources and Learning Media, (8) Difficulty in Measuring Process-Based Learning Outcomes and (9) Limited Time for In-depth Learning.

This highlights the need for detailed research into the role of educators in facilitating the Independent Curriculum, with a specific focus on science education in junior high schools. The purpose of this research is to explore how teachers function and contribute to the application of the Independent Curriculum in junior high school science instruction, as well as to identify the enablers and barriers in its implementation. Comprehensive exploration of teachers' roles may contribute significantly to the development of effective educational practices in Indonesia, especially in making the implementation of the Independent Curricula success which focuses on contextual learning and student character development.

## **METHOD**

This research outlines the role of teachers in the implementation of the Independent Curriculum in science education through a comprehensive examination of their understanding, applied strategies, and encountered challenges. With this method, researchers can understand how teachers interpret the concept of independent learning, how they apply it in the science learning process, and the factors that influence the success or obstacles in its implementation.

This research was conducted at SMP Terusan Nunyai District, Central Lampung Regency with a total of eight SMPs, both public and private. The subjects in this study were four respondents

who were science teachers from four SMP in Terusan Nunyai District, Central Lampung Regency.

The data collection technique will use 3 methods, namely (1) interviews with science teachers, (2) observations of learning carried out by teachers, (3) study of supporting documents for teaching and learning activities and (4) Utilizing triangulation through both varied data origins and collection methods to strengthen research accuracy.

While the data analysis technique uses two methods, namely (1) Thematic analysis technique and (2) Case study analysis technique. For the data validity technique, the researcher used 4 techniques, namely (1) credibility, (2) transportability, (3) definability and (4) confirmability. In this study there are two research variables, namely:

1. The contribution of teacher to the application of the Independent Curriculum (is the X variable). What is meant in this study is what teachers do related to learning in the independent curriculum, which has three indicators, namely the role of teachers as learning planners, the role of teachers as learning implementers (motivators, facilitators and innovators) as well as the function of teachers in assessing student learning.
2. Science learning activities (is the Y variable). What is meant in this study are all forms of activities designed and carried out during the Natural Sciences (IPA) learning process. The goal is to help students understand science concepts, develop scientific thinking skills, and encourage the development of scientific dispositions, including inquisitiveness and analytical thinking. In this study, the Y variable is Science Learning Activities, which has three indicators, namely oral activities, mental activities and motor activities.

## RESULT AND DISCUSSION

### A. The Role of Teachers in Improving Science Learning Activities

#### 1. Learning Planning

In schools where teachers already understand the Independent Curriculum such as SMP Satya Dharma Sudjana and SMP Negeri 3 Terusan Nunyai, where both schools have teachers who have received a lot of Independent Curriculum training and both also have long teaching experience, It significantly contributes to the development of effective instructional planning and positively influences student engagement in science learning. By mastering the principles of the Independent Curriculum, teachers from both schools are able to:

- a. Prepare learning objectives that refer to LA (Learning Achievements) appropriately.
- b. Map student needs based on student characteristics in the class, both in terms of interests, learning styles, and environmental backgrounds.
- c. Create varied learning designs that allow each student to engage based on their unique abilities.
- d. Integrate the Pancasila Student Profile in science learning activities, such as collaboration, critical thinking, and creativity.

Through targeted learning planning and focusing on the goals to be achieved, science learning activities in junior high schools will increase in terms of:

- a. Students are more actively involved in learning activities, especially in observation, experimentation, and discussion activities.
- b. Learning activities are more contextual, because teachers are able to link science material with phenomena around students. Increased student curiosity, because the learning approach is probing and provokes critical questions.

- c. Improved student achievement across cognitive, affective, and psychomotor domains.

This is supported by the outcomes of research conducted by Nadlir, et al (2024) which states that the role of teachers in lesson planning is very important to increase learning activities, because effective planning allows teachers to develop more interesting and efficient learning strategies. By designing lessons carefully, teachers can create opportunities for active student participation, which increases motivation and involvement in the learning process. This proactive approach not only improves teachers' ability to deliver material but also fosters an environment where students are more likely to engage, ultimately leading to better learning outcomes.

## 2. Learning Implementation

With a strong planning foundation, learning implementation is more active and enjoyable. Teachers:

- a. Implement inquiry learning models, discovery learning, and PBL (Project Based Learning).
- b. Apply technology-based resources like video-based learning and simulation tools to enhance science instruction.
- c. Encourage active student participation by involving them in collaborative group dialogues and presentations of their observations.
- d. Provide continuous formative feedback, as part of the assessment for learning.

The implementation of learning aligned with the Independent Curriculum has shown its impact through:

- a. Increased student activity in science learning, both physically (conducting experiments), mentally (critical thinking), and socially (discussing, working together).
- b. Students are more confident in expressing opinions and presentations.
- c. Increased curiosity and interest in science, because the approach used is explorative and contextual.
- d. Improved learning outcomes both cognitively (test scores), affectively (attitudes), and psychomotorically (scientific competencies).

Evidence for this can be found in the study conducted by Hilmi, et al. (2023) who stated that teachers play a crucial role in the application of active learning strategies, because their creativity and skills directly affect student engagement and success. A skilled educator fosters an environment that encourages self-development and meaningful learning, increasing overall learning activities in the classroom.

## 3. Learning Evaluation

Comprehensive knowledge of the Independent Curriculum enables teachers to:

- a. Comprehend the importance of evaluation as part of the learning process, not just to assess the final results.
- b. Be able to use various forms of assessment, such as diagnostic assessments, formative assessments, and summative assessments, according to student needs.
- c. Adjust evaluations based on differentiation of learning outcomes, not just numerical scores.

With this understanding, teachers are able to design meaningful, adaptive learning evaluations that can encourage active participation of students. Evaluation

is no longer a tool for judgment, but a tool to strengthen the learning process, so that student activity in science learning increases significantly in terms of:

- a. Students are more motivated because the form of evaluation is varied, not only in the form of written tests.
- b. Students participate more actively because they feel that the learning process is assessed fairly and appreciates their efforts.
- c. Improved scientific communication skills, because students are often asked to explain their work results, both verbally and in writing.
- d. The formation of an active learning culture, where students do not only wait for assignments from the teacher, but also actively explore the material.

This aligns with the findings of Septiani et al., who emphasize that teachers hold a significant role in the evaluation process by assessing student performance, recognizing areas of strength and weakness, and modifying instructional strategies accordingly. This reflective practice improves the quality of teaching, supports student development, and ultimately improves overall learning activities in elementary education.

#### B. Challenges Encountered in the Implementation of the Independent Curriculum Science Education

Based on the data gathered through interviews and observations, the researchers identified several challenges encountered by teachers in implementing the Independent Curriculum within science education, including:

1. Limited teacher's comprehension regarding the core concepts and foundational principles of the Independent Curriculum. Many teachers still consider the Independent Curriculum as a curriculum that simply replaces the structure of the material, not as a new approach that emphasizes student-based learning, differentiation, and character building through the Pancasila Student Profile. As a result, the implementation carried out in the classroom is often only administrative, for example only changing the term "RPP" to "teaching module" without really changing the learning approach.
2. Limited supporting facilities and resources, such as science practicum tools, interactive learning media, and access to technology are also major obstacles. This makes it difficult for teachers to apply the scientific approach which is an important part of science learning. Although the Independent Curriculum encourages the use of local resources, teachers are often not used to or do not have enough creativity to use the environment as a learning resource.
3. Lack of ongoing training and mentoring. As the researcher found at SMP Negeri 1 Terusan Nunyai where the teacher had never received Independent Curriculum training and had never participated in MGMP activities. The teacher also said that they did not have an active learning community or discussion forum between teachers to share good practices. This causes teachers to feel like they are working alone and have difficulty reflecting on and improving their learning practices.
4. Heavy administrative duties and the pursuit of academic goals often interfere with the optimal execution of the Independent Curriculum. Teachers feel they have to fulfill many reports, recapitulations of grades, and documentation of activities, so that the time and energy to design innovative learning is limited. The old paradigm that still places exam scores as the main benchmark for student success also

strengthens resistance to the formative and holistic approaches offered by the Independent Curriculum.

5. Change in paradigm or mindset. Some teachers still see their role as the main source of knowledge, not as facilitators. As a result, even though they have been given the freedom to develop their learning, they still rely on lecture methods, practice questions, and memorization of science concepts. This contradicts the core philosophy of the Independent Curriculum, which promotes student-centered, collaborative, and reflective learning practices.

These findings are consistent with the research conducted by Hernández, & Olivo-Franco (2020) which states that teachers face obstacles such as excessive work, lack of student motivation, maintaining discipline, and bureaucratic challenges. These factors hinder their ability to effectively improve student learning activities, requiring solutions such as improving teacher-family relationships and better teaching and learning strategies.

Likewise, research conducted by Suryandari, et.al (2024) which states that the main obstacles for teachers in improving student learning activities include lack of motivation, inadequate interventions for practicing teachers, as well as limited access to reliable and comprehensive materials essential for conducting methodological research in education, as identified in the study.

In addition, research conducted by Nageen, et.al (2023) has been noted that teachers encounter various challenges in enhancing student engagement in learning. These include insufficient professional development, ineffective instructional planning, lack of teacher innovation, scarcity of educational resources, overly extensive subject matter, and oversized class populations—all of which impede the successful execution of activity-oriented curriculum.

#### C. Strategies for Overcoming Challenges in Implementing the Independent Curriculum in Science Education

Overcoming the difficulties in science curriculum implementation demands a well-rounded, teamwork-oriented, and sustainable framework. Here are some solutions that can be applied both at the education unit and policy levels:

1. Improving Teacher Capacity through Continuous and Contextual Training.  
The government and education offices need to provide training programs that are not only theoretical, but also practical and based on teacher needs. Training should be accompanied by direct practice, case studies, and mentoring when teachers apply learning in the classroom. Training materials should also focus on project-based learning strategies, formative assessments, and scientific approaches that are contextual to the student's environment.
2. Strengthening Teacher Learning Communities (TLC).  
Schools need to encourage the formation of active and functional teacher learning communities. In this community, teachers can share good practices, discuss teaching modules, and provide feedback to each other. The community also serves as a platform for collective reflection, helping teachers feel supported and not isolated in addressing the challenges of implementing the Independent Curriculum.
3. Simplifying Administrative Burden and Focusing on the Essence of Learning.



Internal school policies and support from local governments are needed to simplify teachers' administrative burdens. Teachers should be facilitated to be able to focus more on designing and implementing meaningful learning. For example, by using a concise but functional document format, and reducing the demands for repetitive reporting that is less relevant to the learning process.

4. Utilizing the Surrounding Environment and Simple Practical Tools.

In conditions of limited laboratory facilities, science teachers can be trained and encouraged to utilize the surrounding environment as a learning resource. For example, using plants in the school garden to observe flower parts, or utilizing river water to test for water pollution. This approach offers financial practicality while supporting the Independent Curriculum's focus on situational and student-centered learning.

5. Transforming Mindsets through School Leadership.

The principal needs to be the driving force behind changes in teachers' mindsets. Through routine reflection activities, coaching, and modeling good practices, the principal can encourage teachers to see themselves as facilitators of learning, not just transmitters of material. In addition, it is necessary to instill that the success of learning is not only measured by students' cognitive values, but also by the extent to which students are active, think critically, and reflect the character dimensions defined in the Pancasila Student Profile through actions and interactions.

6. Utilization of Technology and Digital Resources.

Teachers can be guided to utilize digital platforms such as Merdeka Mengajar, learning videos, interactive science simulations, and educational social media that suit students' learning styles. This can help overcome resource limitations, while making learning more interesting and in tune with the habits and preferences of students who are part of the digital era.

The solutions to the obstacles offered in this discussion are in accordance with the results of research from Hanna (1993) which states that teachers can overcome obstacles to improving learning activities in outdoor education and the environment by utilizing existing curricula to create support systems that involve teachers, students, and parents. They should be involved in team teaching or personal training to improve their skills and confidence. Developing a risk management plan addresses safety issues, while creative scheduling can resolve time conflicts. In addition, keeping costs low and pursuing fundraising through grants and student activities can alleviate budget problems, foster commitment and persistence in delivering effective programs.

These observations are supported by the research conducted by Mufarihah, et.al (2024) which highlights that the Friendly Teacher method serves as an effective means of addressing communication gaps between educators and learners, thereby increasing learning activities. By fostering empathy, understanding, and open communication, this approach improves interpersonal relationships, builds trust, and creates a supportive environment. Implementing a teacher training program that focuses on this approach can further optimize communication skills, leading to increased student engagement and motivation. Ultimately, overcoming these barriers is essential to improving students' academic outcomes and social-emotional development.



In addition, it is also stated in the research of Merle, et.al (2022) which reveals that this study identified key solutions to overcome the barriers faced by teachers, especially limited time availability and inadequate support from school leadership. It is recommended that school leaders be empowered to help teachers reorganize their priorities and allocate dedicated, structured time for collaborative work and professional growth. This strategy aims to increase teacher self-advocacy and enable them to adopt evidence-based classroom practices effectively, ultimately improving learning activities in schools.

## CONCLUSION

The implementation of the Independent Curriculum remains uneven across schools, with some schools, such as Satya Dharma Sudjana Junior High School and Terusan Nunyai Junior High School 3, successfully implementing student-centered learning, formative assessment, and approaches that encourage creativity. This success is supported by teacher understanding and school leadership that encourages comprehensive change. On the other hand, schools like Nurul Huda Junior High School and Terusan Nunyai Junior High School 1 still face challenges, including limited teacher understanding and a teacher-centered learning approach. The lack of a reflective culture has slowed the learning improvement process. Successful implementation depends heavily on the readiness of human resources, school leadership, and the quality of the learning environment.

Science teachers are advised to actively participate in training and form learning communities to share good practices. Principals are crucial for fostering a collaborative culture and providing technical support, as well as providing science learning facilities. The Education Office is expected to conduct ongoing training tailored to teacher needs, as well as monitor and evaluate the implementation of the Independent Curriculum. Schools experiencing difficulties need special attention and be facilitated with communication forums to share solutions.

## ACKNOWLEDGMENTS

The completion of this thesis cannot be separated from the assistance, support, and cooperation of various parties. Therefore, the author would like to express his gratitude to:

1. Mr. Dr. Nyoto Suseno, M.Si. Rector of Muhammadiyah Metro University.
2. Mr. Dr. Muhfahroyin, M.Si. Director of Postgraduate Program, Muhammadiyah Metro University.
3. Mrs. Dr. Sutrisni Andayani, M.Pd. Head of the Master of Educational Administration Study Program, Muhammadiyah Metro University and as Supervisor II who has provided direction and guidance during the preparation of this thesis.
4. Mr. M. Ihsan Dacholfany, M.Ed. as Supervisor I who has provided direction and guidance during the preparation of this thesis.
5. Mr. Prof. Dr. H. Marzuki Noor, M.Pd. as the Examiner who has provided direction and guidance during the preparation of the Thesis.
6. Fellow students and all parties who have helped complete this thesis.

## REFERENCES

Ahmad Syukron. (2021). Kesadaran lingkungan siswa SMP Negeri Kecamatan Grogol Petamburan, Jakarta Barat (Studi pengaruh pengetahuan tentang lingkungan, locus of

- control, dan komunikasi interpersonal terhadap kesadaran lingkungan) [Doctoral dissertation, Universitas Negeri Jakarta].
- Fatmawati, I. (2021). Peran guru dalam pengembangan kurikulum dan pembelajaran. *Revorma: Jurnal Pendidikan dan Pemikiran*, 1(1), 20-37. <https://doi.org/10.62825/revorma.v1i1.4>
- Fauzan Novansyah. (2022). Peran guru dalam meningkatkan motivasi belajar siswa saat pembelajaran daring. *Jurnal Banten*, 1(1), 82-88.
- Hanna, G. (1993). Overcoming barriers to implementing outdoor and environmental education. *Pathways: The Ontario Journal of Outdoor Education*, 6(1), 24-25. <https://eric.ed.gov/?id=EJ48003>.
- Hernández, F., & Olivo-Franco, J. L. (2020). Dificultades del profesorado en sus funciones docentes y posibles soluciones. *Un estudio descriptivo actualizado*, 4(2), 7-25. <https://doi.org/10.22206/CYED.2020.V4I2.PP7-25>.
- Hilmi, H., & Summiyani, S. (2023). Implementation of active learning strategies. [https://doi.org/10.30631/jcps.2\(1\).1778](https://doi.org/10.30631/jcps.2(1).1778).
- Kementerian Pendidikan dan Kebudayaan. (2022). *Laporan tahunan pendidikan Indonesia*. Jakarta: Kementerian Pendidikan dan Kebudayaan.
- Keputusan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi nomor 56/M/2022 tentang pedoman penerapan kurikulum dalam rangka pemulihan pembelajaran. Diakses tanggal 18 Oktober 2024 (07.40).
- Marta, H., Hilda, F., & Yanti, (2020). Penerapan pendekatan contextual teaching and learning pada pembelajaran IPA untuk meningkatkan hasil belajar dan motivasi belajar siswa sekolah dasar. 149-157.
- Merle, J. L., Larson, M., Cook, C. R., Brewer, S. K., Hamlin, C., Duong, M. T., McGinnis, J., Thayer, A. J., Gaias, L. M., & Lyon, A. R. (2022). A mixed-method study examining solutions to common barriers to teachers' adoption of evidence-based classroom practices. *Psychology in the Schools*, 59(9), 1825-1843. <https://doi.org/10.1002/pits.22732>.
- Moleong, L. J. (2021). *Metodologi penelitian kualitatif*. Bandung: PT Remaja Rosdakarya.
- Mufarihah, A., Saleh, S. N., & Aimang, H. A. (2024). The friendly teacher approach: Strategies to overcome communication barriers between teachers and students. *Jurnal Pendidikan Glasser*, 8(2), 195-200. <https://doi.org/10.32529/glasser.v8i2.3504>.
- Nadlir, N., Khoiriyatin, V. Z., Fitri, B. A., & Ummah, D. N. (2024). Peran perencanaan pembelajaran dalam meningkatkan kualitas pengajaran. *Modeling: Jurnal Program Studi PGMI*, 11(2), 1-15. <https://doi.org/10.69896/modeling.v11i2.2332>.
- Nageen, S., Hussan Hisham ul, & Akmal. (2023). Role of teacher for the successful implementation activity based curriculum. *VFAST Transactions on Education and Social Sciences*. <https://doi.org/10.21015/vtess.v11i1.1416>.
- Ripandi, A. J. (2023). Hakikat kurikulum dalam pendidikan. *Jurnal Al Wahyu*, 1(2), 123-133. <https://doi.org/10.62214/jayu.v1i2.129>.
- Rahayu, Restu. (2022). Implementasi kurikulum merdeka belajar di sekolah penggerak. *Universitas Pendidikan Indonesia*. DOI:10.31004/basicedu.v6i4.3237. 6313-6319.
- Septiani, A. N., Pratiwi, D. R., & Rossy, R. (2023). Evaluasi pembelajaran dalam meningkatkan mutu pendidikan di sekolah dasar. *MASALIQ*, 3(5), 824-832. <https://doi.org/10.58578/masaliq.v3i5.1380>.
- Sugiyono. (2018). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*. Alfabeta, CV. Bandung.

Suryandari, K. C., Rokhmaniyah, R., & Wahyudi, W. (2024). Perspectives of students and teachers from continuing professional development: Challenge and obstacle. *Al-Ishlah*, 16(2). <https://doi.org/10.35445/alishlah.v16i2.4572>