UAD Pendidikan Program Doktor
p-ISSN: 3048-4324
e-ISSN: 3048-4316
CECE
https://journal1.uad.ac.id/index.php/CECE
Contemporary Education and Community Engagement

Implementation and Evaluation of Mathematics Learning in the Merdeka Curriculum in Grade 5

Ariani Haffidah Lestari [a, 1], Ratnasari Diah Utami [b, 2]
[a,b] Elementary School Teacher Education, Muhammadiyah University of Surakarta, Surakarta, Indonesia
[1] a510180241@student.ums.ac.id; [2] rdu150@ums.ac.id

DOI: 10.12928/cece.v2i2.1473
Received: May 18, 2025. Revised: July 4, 2025. Accepted: July 11, 2025
Available Online: July 31, 2025. Published Regularly: July 31, 2025

ABSTRACT

This research explores implementing and evaluating mathematics learning in face-to-face learning using the independent curriculum at Public Elementary School 1 Sambi, Boyolali, Indonesia. The study aims to describe the implementation of the learning process, evaluation, and obstacles to the mathematics learning process. This type of research is descriptive qualitative; the subjects in this study were a grade 5 teacher and 20 fifth-grade students. Data sources were collected from primary and secondary sources. Data collection is oriented towards observation, interview, and documentation techniques. Data were analyzed through data reduction, presentation, and conclusion drawing, while the validity test used triangulation techniques. The results showed that in implementing the learning process, the teacher applies student-centered learning, uses teaching modules as a teacher's guide, and adjusts the subject matter delivered, which is guided by the profile of Pancasila students. The profile of Pancasila students seen in the learning process includes group discussion activities and presentation of discussion results. The learning evaluation carried out is formative. There are supporting factors for evaluation, which include teacher competence, internal conditions of students, and the availability of learning resources, while inhibiting factors include a lack of student accuracy.

Keywords: Independent Curriculum, Learning, Mathematics.

Corresponding Author:
Ariani Haffidah Lestari, Elementary School Teacher Education, Muhammadiyah University of Surakarta
a510180241@student.ums.ac.id

INTRODUCTION

Education in Indonesia continues to undergo changes and developments in learning design with the development of an increasingly advanced era. Education and even the state are vital for human life [1]. According to Fianingrum Novaliyosi and Nindiasari, with schooling,

humans utilize their intellects, tastes, senses, and bodies to become quality people [2]. The quality of education is a picture of a country, so the quality of education must keep up with the times [3].

The soul of education is found in the curriculum. To improve the quality of education, the curriculum must be developed according to the education unit [4]. The challenges and demands of the times make curriculum changes dynamic. [5]. Curriculum development is said to be effective if it is based on the demands and needs [6]. So curriculum development must have a strong and principled foundation for achieving educational goals.

The development of the world of education has made the independent curriculum a policy expected to bring positive changes. The independent curriculum provides flexibility for educators and students to undergo relevant and contextualized learning [7]. The independent curriculum has optimal content in exploring concepts and strengthening competencies [8]. The fun learning makes students increase their motivation to learn without pressure [9].

A vital role in the development of numerical skills is mathematics [10]. Numerical skills are essential for everyday life and affect the understanding of mathematical concepts at the next level of education [11]. With the independent curriculum, it is required to be presented more interestingly and easily understood, and to develop students' critical and creative thinking skills. This is why the role of evaluation in learning is vital in understanding the effectiveness and success of the methods applied. After evaluating learning, it can be seen that independent learning results in quality and more advanced mathematics learning [12].

The mathematics learning process of grade 5 provides an understanding of the concept of material, not memorization. According to Kholil & Safianti [13], mathematical material is understood by reasoning, and reasoning is understood through learning mathematical material. According to Daimah & Suparni [14], the concept of mathematics learning is the process of interaction between teachers and students in developing learning models using methods so that learning develops and grows optimally. Although there are great hopes for curriculum change, there are challenges in implementing and evaluating mathematics learning in the independent curriculum. Evaluation is a systematic and comprehensive activity to control and determine the quality of learning components based on specific considerations and criteria [15].

Curriculum outcomes must have relevance to the learning tools. However, in the implementation of the independent curriculum, there are still pros and cons [16]. This is due to many protests, readiness, solidarity, and implementation time. According to Pradipta in Sobri & Zuwiranti [17], education in Indonesia is still far behind developed countries, and implementing an independent curriculum is not easy. Changes in the learning system will arise during implementation; at this time, it can be implemented as comfortably as possible to facilitate the interaction process.

The independent curriculum is an effort to overcome learning deficits, especially literacy and numeracy, where students lack understanding of simple reading and applying basic math concepts. According to Wiguna & Tristaningrat [18]The independent curriculum was developed as flexible, focusing on essential material and developing student character and competencies. Research conducted by Jojor & Sihotang shows that learning progress one year before the pandemic was 129 points for literacy and 78 points for arithmetic, and after the pandemic, progress was significantly reduced [19]. Literacy lost learning is equivalent to 6 months, and math lost learning is equivalent to 5 months. To overcome this crisis, the Ministry of Education and Culture developed an independent curriculum to restore learning that had experienced a protracted crisis. The independent curriculum is an effort by education units to overcome the learning lag, especially in literacy and numeracy, where students lack understanding of simple reading and applying basic math concepts.

Based on preliminary observations at Sekolah Dasar Negeri 1 Sambi (a public elementary school), an independent curriculum has been implemented in the 2024/2025 school year. The independent curriculum is expected to make learning fun for students. Based on the description above, researchers are interested in researching the implementation of the independent curriculum in mathematics learning because it is necessary to see how the curriculum is implemented in a school. The material for measuring angles was chosen because it can train students' mathematical abilities. From the above explanation, the purpose of this study is to describe the implementation of an independent curriculum in mathematics learning with material for measuring angles, evaluate independent curriculum learning in mathematics learning with material for measuring angles, and the obstacles experienced by teachers in implementing an independent curriculum in learning mathematics material for measuring angles in grade 5.

METHOD

The type of research used in this study is qualitative research. Qualitative research is oriented towards natural phenomena or symptoms [20]. Qualitative research methods explore a problem, then process data and analyze it. The research design used in descriptive qualitative research with a phenomenological approach.

The subjects in this study were grade 5 teachers and 20 grade 5 students of Public Elementary School 1 Sambi in the 2024/2025 school year. These subjects were chosen because they have criteria (1) the teacher plays an active role in the process of implementing the independent curriculum; (2) the teacher is a recommendation from the principal and is by the object of research researched by the researcher; (3) 20 grade 5 students have a role in teaching and learning activities in implementing the independent curriculum.

In collecting data, researchers make research instruments in the form of interview scripts, observation tables, and documentation of supporting documents needed in research. Data collection was carried out using observation, interview, and documentation techniques. Observations were made in grade 5 twice in different periods. Researchers made observations through direct observation in the field, namely observing the process of implementing math learning in the classroom and evaluating after participating in learning activities. Furthermore, interviews were conducted to obtain supporting data on implementing and evaluating the independent curriculum in mathematics learning. Interviews were structured with grade fifth teachers to collect in-depth data regarding the learning implementation process, learning evaluation, and learning obstacles. Documentation of the teacher's teaching module to determine the learning outcomes, strategies, and learning models used by the teacher, and the arrangement of learning activities.

The data obtained during observations and interviews were then compiled in interview transcripts, which were then analyzed regarding the implementation and evaluation of the independent curriculum in mathematics learning. The validity used in this research is technical triangulation. According to Bungin [21], the triangulation technique prioritizes the process and the desired results. Data were analyzed through data reduction, data presentation, and conclusion drawing. Data analysis, according to Miles and Huberman, in Abdussamad [20], is carried out interactively and continuously until the data is saturated.

RESULTS AND DISCUSSION

Public elementary school 1 Sambi is one of the elementary schools that has implemented the independent curriculum. The implementation of the independent curriculum is adjusted to the conditions of the school and the environment. *Implementing* the independent curriculum at

public elementary school 1 Sambi in mathematics is carried out by carrying out learning activities and evaluating the learning of the mathematics curriculum, and obstacles are encountered in its implementation. This is described in the following explanation.

Implementation of mathematics learning

During the learning process of the math chapter on measuring angles in grade 5 of public elementary school 1 Sambi, the results showed that in its implementation, the teacher adhered to the teaching module. The teaching module is prepared before carrying out learning activities. Teaching modules consist of initial information components, core components, and attachment components. The initial information component of the teaching module consists of the module identity, which is composed of the teacher's name, education unit, year of preparation, subject, phase/class, topic, time allocation, initial competence, Pancasila learner profile, infrastructure facilities, and target participants. The learning module has a core component consisting of learning objectives, meaningful understanding, triggering questions, learning activities, assessment, enrichment, and student/teacher reflection. The attachment comprises teaching materials, learner worksheets, a bibliography, and a glossary. So, the teaching module created by the grade 5 public elementary school 1 Sambi teachers is based on an independent curriculum.

The teaching module the teacher has prepared adapts to the needs of grade 5 students at Public Elementary School 1 Sambi. According to Azizah & Wardani, the independent curriculum teaching module must be based on learning and assessment guidelines, because the spirit of the vision and mission of preparing teaching modules is to guide educators in carrying out the learning process [22]. Where this is in line with Yaniawati, Indrawan, & Setiawan's teaching modules, the implementation of the flow of learning objectives developed from learning outcomes [23].

In implementing learning to measure angles, the teacher is a facilitator, motivator, and innovator in helping the students' learning process. So that in the process, students play an active role in learning and grow according to the cognitive level of individual students. As in the theory of constructivism developed by Jean Piaget in Amka [24], to achieve learning success, it is essential to align learning activities with students' cognitive development stage. This concept aligns with the approach applied in the independent curriculum, where the learning process is adjusted to the competency level of individual students.

Increased student involvement in the learning process is a positive result of the independent curriculum, where the grade 5 teacher makes learning methods relevant to students' lives, engaging and interactive. So that students are active and enthusiastic in learning. Active student involvement in the learning process makes the learning atmosphere warmer, more focused, and energized. This results in a deep understanding of the material being studied, namely, measuring angles and being able to solve problems well. The math learning time for measuring angles has 2 lesson hours with an allocation of 2x35 minutes.

The learning model teachers use in the learning implementation process is problem-based learning. The problem-based learning model is used in the learning process because it emphasizes discovery and authentic experience so that students can achieve predetermined learning objectives. In this model, students actively think critically in discussions and conduct experiments on angle measurement using available tools and media. After getting a learning experience, student learning outcomes can be seen [25].

In this learning model, teachers use learning video media as content differentiation based on visual and auditory student learning styles. Then the teacher conducts questions and answers to students about the learning content displayed, where this process trains students to think critically. After that, organize students into four groups according to learning styles based on

diagnostic assessments. Students are guided to work on tasks (learner worksheets) and are reminded that during the discussion process, they must cooperate and be active and careful when working on tasks.

After finishing the discussion, each group presented the results of their work. Then the teacher conducts a work assessment, and other students respond to the results of different groups' work presentations. Students are rewarded with applause for groups that have finished presenting in class. Then, the session closed with students listening to the teacher's explanation regarding the presentation of student work.

During the learning process of the chapter on measuring angles, some students experience difficulties. The difficulties experienced by students are still confused when using bows or props, and they still have difficulty reading props from the right or left. In dealing with this problem, the teacher provides students with examples of applying arc props. After students try to practice applying arc props by measuring books or other objects, student work is checked individually. The angle chapter's learning process uses learning media such as rulers, arcs, books, wall clocks, and other objects.

Educators in the learning implementation process implement the Pancasila profile strengthening project in mathematics subjects by presenting the work results in front of the class after conducting group discussions. After completing the tasks the educator gave, students take turns reading the questions on the task sheet and discussing them together. In the process, the educator also provides feedback and explains the material students have covered.

The Pancasila learner profile strengthening project in the independent curriculum is a learning approach that aims to identify and solve challenges through five main aspects, namely self-potential development, individual empowerment, self-improvement, self-understanding, and social roles. In the application of strengthening the profile of Pancasila students in mathematics subjects, namely counting skills, Skillful counting starts from addition, subtraction, multiplication, and division [26].

Learning evaluation

Learning evaluation assesses student competence after carrying out the teaching and learning process in stages. Learning evaluation is used as a benchmark for the success of the teaching and learning process [27]. The results of the interview with the grade 5 teacher revealed that the purpose of learning evaluation is to measure the extent to which students have achieved the learning objectives that have been set. In addition, it is also necessary to provide constructive feedback to students regarding their abilities, correct weaknesses, and improve the quality of learning. So that with the learning evaluation, the teacher can develop appropriate teaching strategies to overcome difficulties and strengthen the understanding of mathematical concepts.

The method used by fifth-grade teachers at Public Elementary School 1 Sambi in evaluating math learning in the chapter on measuring angles is formative evaluation. Formative evaluation is an essential element in an independent curriculum that focuses on students' understanding of mathematical concepts [28]. Formative assessment carried out by the grade 5 teacher of public elementary school 1 Sambi is carried out continuously during the learning process to help teachers and students understand the extent to which students master the material and what needs to be improved. Formative assessments carried out by educators are as follows:

1. Assessment of attitudes (cooperation/cooperation and critical reasoning)
    a. Assessment technique in the form of observation
    b. Assessment instrument in the form of a rubric
2. Assessment of knowledge

a. Assessment technique in the form of a written test
b. Assessment instrument in the form of a rubric

3. Assessment of skills
   a. Assessment technique in the form of performance
   b. Assessment instrument in the form of a rubric

The observation results show that the learning evaluation process is done well and according to the teacher's procedures. Students' activities during the learning evaluation aligned with the expected standards, where they actively participated and received the learning evaluation instructions. This is because the learning evaluation instrument used proved to be appropriate.

The change in curriculum on the achievement of mathematics learning outcomes is pretty good because the independent curriculum implements a project to strengthen the Pancasila learner profile. So that students can design a project or research on solutions to problems from those faced in everyday life (critical reasoning). This can be seen in student discussions with friends, such as compiling work (student worksheets). The Pancasila learner profile strengthening project is a means for students to deepen their knowledge and talent interests as a process of enhancing character [26]. The Pancasila learner profile that is applied in the learning process is faith and devotion to God Almighty (the use of polite language in expressing opinions), critical reasoning (asking questions and collecting data or references) and cooperation (learning process in groups, being able to obtain and process information which is then analyzed and evaluated and make decisions).

In addition to students working on tasks that educators have determined and given. Educators are responsible for directing the work on the task sheet. Then, when the given task is completed, it will be discussed and checked together, and the students will read the questions. In the discussion, the educator also explains the material covered by students.

Then, from the evaluation that has been carried out, it is found that the learning outcomes of fifth-grade students in the angle chapter have been met, where the results are obtained with an average of 76.75. This finding is in line with Putri & AR's conclusions that the assessment and project of strengthening the Pancasila learner profile in an independent curriculum has a significant influence on student learning outcomes [29]. The project of strengthening the profile of Pancasila students in an independent curriculum has the aim of encouraging student independence, initiative, time management, and problem-solving [30].

Finally, the learning evaluation helps teachers evaluate the teaching methods used during grade 5, measuring angles in math lessons, and obtain data on student learning outcomes for future lesson planning. With this, teachers can assess whether the chosen approach successfully makes students understand the mathematics subject matter presented. So that in the future, teachers can improve or develop the learning process, which includes learning models, methods, and learning priorities tailored to the needs and characteristics of fifth-grade students.

Implementation barriers

The difficulties educators face when implementing the independent learning curriculum are constrained by not understanding IT, the difficulty of teachers in making lesson plans and teaching modules, limited facilities and infrastructure, creating varied questions, and funds in carrying out projects to strengthen the profile of Pancasila students and assessments. From the difficulties faced, educators have solutions in dealing with them, namely by learning to use IT or collaborating with colleagues in using IT, designing teaching modules, and maximizing the use of media or infrastructure available at school. This is supported by research by Mailani, which states that there are difficulties in implementing the independent curriculum due to the lack of teacher ability. Therefore, teachers increase their experience by attending training and

adding literacy about the independent curriculum, and collaboration between educators and schools can solve this problem [5]. The lack of school facilities can be addressed by making teaching aids that students can use.

In implementing the independent curriculum in mathematics, educators must have the ability of pedagogic competence, professional competence, social competence, and personality competence. With the qualified competence of educators, the learning process will be more easily accepted and understood by students. Then the existence of an independent curriculum influences changes in the behavior of students who are more active and interactive when learning occurs.

CONCLUSION

Based on the research results and discussion, it can be concluded that the implementation and evaluation of mathematics learning at Public Elementary School 1 Sambi runs quite well. This can be seen from the learning process by educators and the learning outcomes obtained by students. In the implementation stage, educators have designed learning by using teaching modules, and implementing and managing the learning process well to make it easy for students to accept or understand. As well as evaluating the learning process by giving assignments to students in groups and presenting the results. Besides that, there are obstacles in mastering IT, and students' lack of accuracy/focus in understanding questions/orders. They must also be improved, and facilities or learning facilities/infrastructure that support implementing learning and evaluating fifth-grade mathematics. Therefore, along with the times where humans are required to continue to develop following technological advances, training is needed for teachers to be proficient in answering the challenges that exist in the world of education today, and a method is required to increase the focus and accuracy of students.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ACKNOWLEDGEMENT

The researcher would like to thank the supervising lecturer, parents, principal of public elementary school 1 Sambi, fifth-grade teachers, and 20 fifth-grade students of public elementary school 1 Sambi.

REFERENCES

[1] M. K. Kholillah and Y. F. Furnamasari, "Peran Pendidikan Dalam Menghadapi Arus Globalisasi," *Edumaspul J. Pendidik.*, vol. 6, no. 1, 2022, doi: 10.33487/edumaspul.v6i1.2508.

[2] F. Fianingrum, N. Novaliyosi, and H. Nindiasari, "Kurikulum Merdeka pada Pembelajaran Matematika," *EDUKATIF J. Ilmu Pendidik.*, vol. 5, no. 1, 2023, doi: 10.31004/edukatif.v5i1.4507.

[3] L. E. Prasetyo and Sutama, "Kedisiplinan Dalam Pembelajaran Matematika Daring Pada Siswa SMA Negeri 8 Surakarta," *J. Cendekia J. Pendidik. Mat.*, vol. 6, no. 3, 2022, doi: 10.31004/cendekia.v6i3.1438.

[4] D. Rahmadayanti and A. Hartoyo, "Potret Kurikulum Merdeka, Wujud Merdeka Belajar di Sekolah Dasar," *J. Basicedu*, vol. 6, no. 4, 2022, doi: 10.31004/basicedu.v6i4.3431.

[5] E. Mailani, N. T. Ashayudha, M. Ramadhani, D. D. A. B. Kaban, D. Saskia, and Aldino, "Analisis Kesulitan Guru dalam Menerapkan Kurikulum Merdeka pada Pembelajaran Matematika di SD," *J. Inov. Pendidik.*, vol. 7, no. 6, 2024.

[6] Y. Indarta, N. Jalinus, W. Waskito, A. D. Samala, A. R. Riyanda, and N. H. Adi, "Relevansi Kurikulum Merdeka Belajar dengan Model Pembelajaran Abad 21 dalam Perkembangan Era Society 5.0," *Edukatif J. Ilmu Pendidik.*, vol. 4, no. 2, 2022, doi: 10.31004/edukatif.v4i2.2589.

[7] P. Sasmita, F. Y. J, A. Hidayati, and M. F. Amsal, "Implementasi Kurikulum Merdeka Dalam Pembelajaran Matematika Kelas VII di SMP Negeri 1 Pariaman," *J. Pendidik. Tambusai*, vol. 8, no. 1, 2024.
[8] S. R. Adla and S. T. Maulia, "Transisi Kurikulum K13 Dengan Kurikulum Merdeka Terhadap Hasil Belajar Siswa," *Lencana J. Inov. Ilmu Pendidik.*, vol. 1, no. 2, 2023, doi: 10.55606/lencana.v1i2.1518.
[9] I. Muna and M. Fathurrahman, "Implementasi Kurikulum Merdeka pada Mata Pelajaran Matematika di SD Nasima Kota Semarang," *J. Profesi Kegur.*, vol. 9, no. 1, 2023.
[10] M. Elvira and S. Sainuddin, "Uji Model Instrumen The Mathematical Development Beliefs Survey (MDBS) Pada Pendidikan Prasekolah," *Presch. J. Perkemb. Dan Pendidik. Anak Usia Dini*, vol. 1, no. 2, 2020.
[11] M. Genc and A. K. Erbas, "Secondary Mathematics Teachers ' Conceptions of Mathematical Literacy," *Int. J. Educ. Math. Sci. Technol.*, vol. 7, no. 3, 2019.
[12] D. Anggreini and E. Priyojadmiko, "Peran Guru dalam Menghadapi Tantangan Implementasi Merdeka Belajar untuk Meningkatkan Pembelajaran Matematika pada Era Omicron dan Era Society 5.0," *Pros. Webinar Nas. PGSD UST*, vol. 3, no. 1, 2022.
[13] M. Kholil and O. Safianti, "Efektivitas Pembelajaran Penemuan Terbimbing Terhadap Hasil Belajar Matematika Siswa Materi Barisan dan Deret," *Laplace J. Pendidik. Mat.*, vol. 2, no. 2, 2019, doi: 10.31537/laplace.v2i2.246.
[14] U. S. Daimah and Suparni, "Pembelajaran Matematika pada Kurikulum Merdeka dalam Mempersiapkan Peserta Didik di Era Society 5.0," *SEPREN J. Math. Educ. Appl.*, vol. 4, no. 2, 2023, doi: 10.36655/sepren.v4i02.888.
[15] A. Kurniawan *et al.*, *Evaluasi Pembelajaran*. Padang: PT. Global Eksekutif Teknologi, 2022.
[16] M. Suryaman, "Orientasi Pengembangan Kurikulum Merdeka Belajar," in *Prosiding Seminar Daring Nasional: Pengembangan Kurikulum Merdeka Belajar*, 2020, pp. 13–28.
[17] M. Sobri and A. Zuwiranti, "Penerapan Kurikulum Merdeka SD/MI di Indonesia.," *J. Dev. Res. Educ.*, vol. 3, no. 2, 2023.
[18] I. K. W. Wiguna and M. A. N. Tristaningrat, "Langkah Mempercepat Perkembangan Kurikulum Merdeka Belajar," *EDUKASI J. Pendidik. Dasar*, vol. 3, no. 1, 2022.
[19] A. Jojor and H. Sihotang, "Analisis Kurikulum Merdeka dalam Mengatasi Learning Loss di Masa Pandemi Covid-19 (Analisis Studi Kasus Kebijakan Pendidikan)," *Edukatif J. Ilmu Pendidik.*, vol. 4, no. 4, 2022, doi: 10.31004/edukatif.v4i4.3106.
[20] Z. Abdussamad, *Metode Penelitian Kualitatif*. Makassar: CV Syakir Media Press, 2021.
[21] B. Bungin, *Analisis Data Penelitian Kualitatif*. Jakarta: PT Rajagrafindo Persada, 2016.
[22] N. Azizah and H. Wardani, "Analisis Pembelajaran Matematika dengan Mengimplementasikan Kurikulum Merdeka," *J. Cendekia J. Pendidik. Mat.*, vol. 8, no. 1, 2023, doi: 10.31004/cendekia.v8i1.3061.
[23] R. P. Yaniawati, R. Indrawan, and G. Setiawan, "Core Model on Improving Mathematical Communication and Connection, Analysis of Students' Mathematical Disposition," *Int. J. Instr.*, vol. 12, no. 4, 2019, doi: 10.29333/iji.2019.12441a.
[24] H. Amka, *Filsafat Pendidikan*. Sidoarjo: Nizamia Learning Center, 2019.
[25] F. N. M. Janah, B. S. Sulasmono, and E. W. Setyaningtyas, "Peningkatan Hasil Belajar Matematika Melalui Model Pembelajaran Problem Based Learning Berbantuan Media Video Siswa Kelas IV SD," *J. Pendidik. Dasar*, vol. 7, no. 1, 2019, doi: 10.20961/jpd.v7i1.29002.
[26] K. N. Aini, S. N. Salam, and Y. M. Septiana, "Pengaplikasian P5 Kurikulum Merdeka Pada Mata Pelajaran Yang Ada Di SD Pembangunan Laboratorium UNP," *Pop. J. Penelit. Mhs.*, vol. 3, no. 1, 2024, doi: 10.58192/populer.v3i1.1780.
[27] M. Makbul, D. S. S, and L. O. I. Ahmad, "Pengembangan Evaluasi Formatif dan Sumatif," *J. Pendidik. Agama dan Keagamaan Islam*, vol. 3, no. 1, 2021.
[28] H. Solehah and D. Setiawan, "Kurikulum Merdeka dan Penilaian Pembelajaran Matematika dalam Membangun Generasi Matematika yang Kompeten (Studi Literatur)," *J. Pendidik. Tambusai*, vol. 7, no. 3, 2023.
[29] C. A. Putri and A. AR, "Pengaruh Asesmen Formatif, Peran Guru, dan P5 dalam Kurikulum

Merdeka Terhadap Hasil Belajar Siswa AKL," *EDUNOMIA J. Ilm. Pendidik. Ekon.*, vol. 4, no. 1, 2023, doi: 10.24127/edunomia.v4i1.4877.

[30] M. A. Fatah and E. Zumrotun, "P5 dalam kurikulum merdeka memiliki tujuan untuk mendorong kemandirian siswa , inisiatif, mengatur waktu dan memecahkan masalah," *Attadrib J. Pendidik. Guru Madrasah Ibtidaiyah*, vol. 6, no. 2, 2023.

AUTHORS

Ariani Haffidah Lestari is an undergraduate Student of Elementary School Teacher Education, University of Muhammadiyah Surakarta, Indonesia. Her research interests focus on curriculum analysis and learning evaluation. For further inquiries, she can be reached at a510180241@student.ums.ac.id

Ratnasari Diah Utami is a lecturer at Muhammadiyah University of Surakarta, Indonesia. For further inquiries, she can be reached at rdu150@ums.ac.id