

p-ISSN: 2442-7470 e-ISSN: 2579-4442

TEACHERS' CHALLENGES IN IMPLEMENTING AN INDEPENDENT LEARNING CURRICULUM IN SCIENCE AND SOCIAL STUDIES FOR PRIMARY IV STUDENTS

Inayah Septiyani¹, Sukartono^{2*}

^{1,2}Universitas Muhammadiyah Surakarta ²suk917@ums.ac.id

Abstract

This study aims to describe the challenges faced by teachers in implementing the independent learning curriculum in natural and social science learning for fourth grade students at SD N 02 Wonorejo. The focus in this study is to discuss the challenges faced by teachers while planning, implementing, and evaluating natural and social science lessons. This research uses a qualitative approach with a phenomenological design. Sources of research data are teachers and fourth grade students and school principals. This research was carried out in semester two of the 2022/2023 school year. Data collection techniques with observation, interviews, and documentation. Validity test using source and method triangulation. The data analysis technique used Miles and Huberman's interactive analysis with the stages of data reduction, data presentation, and conclusions. This research concludes that there are challenges faced by teachers in the stages of planning, implementing, and evaluating learning. Teachers' challenges in natural and social science learning include obstacles in determining learning strategies and models, difficulties in reducing learning outcomes to learning objectives, not understanding the format in detail in making teaching modules, there are no student books yet, the use of learning media is not maximized, difficulties in linking science material with social, and techniques in carrying out the assessment have not been maximized. Thus, it becomes an evaluation that it is necessary to maximize learning by knowing the various challenges in implementing the independent curriculum in natural and social science learning.

Keywords: independent learning curriculum; natural and social science learning; teacher's challenge

Abstrak

Penelitian ini bertujuan untuk mendeskripsikan tantangan yang dihadapi guru dalam penerapan kurikulum merdeka belajar pada pembelajaran IPAS siswa kelas IV SD N 02 Wonorejo. Fokus dalam penelitian ini yaitu membahas mengenai tantangan apa saja yang dihadapi oleh guru selama menyusun perencanaan pembelajaran, melaksanakan pembelajaran, dan mengevaluasi pembelajaran IPAS. Penelitian menggunakan pendekatan kualitatif dengan desain fenomenologi. Sumber data penelitian yaitu guru dan siswa kelas IV serta kepala sekolah. Penelitian ini dilaksanakan pada semester 2 tahun pembelajaran 2022/2023. Teknik pengumpulan data dengan observasi, wawancara, dan dokumentasi. Uji keabsahan menggunakan triangulasi sumber dan metode. Teknik analisis data menggunakan analisis interaktif Miles dan Huberman dengan tahap-tahap reduksi data, penyajian data, dan kesimpulan. Penelitian ini menyimpulkan bahwa terdapat tantangan yang dihadapi guru pada tahap perencanaan, pelaksanaan, dan evaluasi pembelajaran. Tantangan guru pada pembelajaran IPAS antara lain terkendala dalam menentukan strategi dan model pembelajaran, kesulitan dalam menurunkan CP menjadi tujuan pembelajaran, belum paham format secara detail dalam membuat modul ajar, belum terdapat buku siswa, pemanfaatan media pembelajaran belum maksimal, kesulitan dalam mengaitkan materi IPA dengan IPS, dan teknik dalam melaksanakan asesmen belum maksimal. Dengan demikian, menjadi sebuah evaluasi bahwa perlu memaksimalkan pembelajaran dengan mengetahui berbagai tantangan dalam menerapkan kurikulum merdeka pada pembelajaran IPAS.

Kata Kunci: kurikulum merdeka belajar; pembelajaran IPAS; tantangan guru

Received	: 2023-04-26	Approved : 2023-07-14
Reviesed	: 2023-07-07	Published : 2023-07-31

© • 🕤

BY SA Jurnal Cakrawala Pendas is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Introduction

Science and technology are currently developing so rapidly. Recently, more and more interactive instructional technologies are gaining popularity (Nādu, 2022). Technology will affect many things including education (Muhie & Woldie, 2020). So that in an era of development that is so sophisticated, education and teaching need to be balanced with innovation (Nugraha, A., & Aminur Rahman, 2021). In the world of education, good learning strategies are needed by using questions, class discussions, independent learning, inductive and deductive thinking, media or social media, involving students in learning activities and creating innovation in learning (Seechaliao, 2017). In addition, current human resources should be encouraged to keep learning and increasing their knowledge of technology so that the quality of education is better (Syarif et al., 2020). Along with the development of science and technology, education in Indonesia needs to be continuously improved to prepare ourselves to become a quality nation for future generations. So we need a curriculum that can cover all aspects of needs in education both in terms of learning innovation to quality human resources.

Curriculum is a guideline that develops in response to needs, difficulties and goals in education (Abdullahi, 2022). The developed curriculum must be innovative and meet the needs of the times (Ghufron, 2022). In addition, the curriculum must cover the needs of all students and have a long-term impact (Mackatiani et al., 2022). Indonesia continues to implement curriculum changes that keep up with the times (Amaliyah & Handayani, 2021). In 2022 the Indonesian Ministry of Education and Culture issues decision Number 56/M/2022 regarding curriculum guidelines in the context of learning recovery including the government providing 3 options for school institutions to implement the 2013 curriculum, a curriculum with simplified KI and KD or implementing an independent curriculum. However, it is possible that of the three options, the independent curriculum will still be implemented as a whole in Indonesia in 2024, while in the first year, starting in 2022, it will be implemented in stages. At the elementary school level, the independent curriculum is implemented starting from grades I and IV.

Independent learning curriculum can encourage students to learn and develop themselves, encourage self-confidence and skills, form a character that cares about the environment, and easily adapts to the social environment (Ainia, 2020). In addition, the independent learning curriculum also has the benefit of providing independence for teachers, principals and students to choose learning that is adapted to the conditions of the educational unit, and in accordance with the characteristics of students (Minsih et al., 2023). The implementation of the independent learning curriculum policy encourages the role of the teacher as curriculum development as well as in the learning process. Apart from being a source of learning, in the independent learning curriculum the teacher acts as a learning facilitator which is supported by personality, pedagogic, professional and social competencies with which these competencies the teacher can realize the learning and implementation objectives of the independent learning curriculum policy (Pendi, 2020).

As a teacher, developing integrated and dynamic learning can be optimal when all aspects including the educational environment support all dimensions of child development

(Darling-Hammond, Linda, 2020). In addition, one of the factors that influence student success or failure is the quality of relationships and how teachers build relationships with students (Bambaeeroo, F., & Shokrpour, 2017). Teachers also need to have good classroom management skills by creating a happy or fun atmosphere in the school environment Research conducted by (Bdiwi et al., 2022) shows that the teacher's position can increase student motivation, engagement, and effective learning (Minsih & D, 2018). Based on this statement, of course the role of the teacher is very influential on student progress. Included in implementing the independent learning curriculum the role of the teacher is so important to apply it properly.

In the implementation of the independent learning curriculum there is a problem that the teacher has not properly adopted the concept related to independent learning in the learning process, besides that the teacher also needs an adaptive process in interpreting independent learning. Based on research conducted by (Rosidah et al., 2021) from the results of an FGD involving 50 teachers in Mojokerto, it shows that teachers experience various problems related to their assessment which is quite complicated in the independent curriculum. In addition, there are results of research conducted by (Sasmita, 2022) there are three obstacles for teachers in implementing the independent learning curriculum, namely limited literacy, technology, and soft skills or competencies. This shows that there are problems or it can be said that teachers have concerns and challenges in implementing the independent learning curriculum.

In the implementation of the independent curriculum at the elementary school level, science and social studies subjects are combined into one, namely the natural and social science subject. By combining science and social studies subjects, it is hoped that it will make it easier for students to manage the natural and social environment in one unit (Kemendikbudristek, 2022). But in fact this has become a policy and a new paradigm for a teacher in implementing natural and social science learning where in previous years science and social studies were separate subjects. In accordance with the statement (Cholily et al., 2023) that there is a difference between the independent curriculum and the previous curriculum, namely at the elementary school level there is a separation between science and social studies subjects. Based on these facts, the topic of teacher challenges in implementing an independent curriculum, especially in natural and social science learning, is interesting to discuss. Digging deeper into the teacher's challenges in evaluating so that natural and social science learning can be carried out better in the future.

Based on observations, interviews, and documentation at SD N 02 Wonorejo, they have implemented the independence curriculum in the new 2022/2023 school year so that it has been implemented for more than one semester in implementing the independence curriculum. In addition, in the implementation of the independent learning curriculum, a problem was found in SD N 02 Wonorejo in natural and social science learning, namely the lack of textbooks for students so that they were not maximal in exploring knowledge in depth. The target of this study was class IV at SD N 02 Wonorejo because the implementation of the independent curriculum was still gradual, namely grades I and IV, while the natural and social science subjects started from Phase B, namely grade III SD, so this research was quite focused on grade IV. Based on this background, this study will examine the challenges of teachers in implementing the Independent Learning Curriculum in natural and social science learning for grade IV students at SD N 02 Wonorejo.

Research Method

The type and design of this research is qualitative research with a phenomenological approach. In the opinion of (Walidin, W., Saifullah, 2015) qualitative research is a research process to understand human or social phenomena by creating an overall and complex picture to report detailed views of informants, can be presented in the form of words, and carried out with a natural setting. This research was conducted at SD N 02 Wonorejo in March, semester 2 of the 2022/2023 school year. The data sources in this study are primary data sources from school principals, fourth grade teachers, and fourth grade students at SD N 02 Wonorejo as well as secondary data sources in the form of learning tools documents. Data collection techniques using interviews, observation, and documentation. The research object observed was the natural and social science learning process. In this study, researchers used source triangulation and technical triangulation as an examination technique to achieve validity. Interview instruments in data collection can be seen in the Table 1, Table 2, and Table 3.

Table 1. Principal	Interview	Instrument
--------------------	-----------	------------

No	Question
1	What is the teacher planning before carrying out natural and social science learning?
2	What are the challenges faced by teachers in the planning process in natural and social science lessons?
3	How does the teacher deliver material during natural and social science learning?
4	What learning media does the teacher use in natural and social science learning?
5	What method is used by the teacher in the natural and social science learning process?
6	What challenges did the teacher face during the process of implementing natural and social science learning?
7	How does the teacher carry out the evaluation of natural and social science learning?
8	What are the challenges faced by teachers in evaluating natural and social science
	learning?

Table 2. Fourth Grade Teacher Interview Instrument

No	Question
1	How did you plan before carrying out natural and social science learning?
2	Do you diagnose students' learning needs before implementing learning?
3	What challenges did you face in the planning process for natural and social science
	lessons?
4	How do you convey material during natural and social science lessons?
5	What learning media do you use in natural and social science lessons?
6	What method did you use in the natural and social science learning process?
7	What challenges did you face during the process of implementing natural and social science learning?
8	How did you carry out the evaluation of natural and social science learning?
9	What challenges did you face in evaluating natural and social science learning?

Table 3. Fourth Grade Student Interview Instrument

No	Question	
1	How does the teacher deliver material during natural and social science learning?	
2	What learning media does the teacher use in natural and social science learning?	
-		-

3 What method is used by the teacher in the natural and social science learning process?

The focus of this research is regarding the challenges faced by teachers when applying the independent curriculum to natural and social science learning in the process of planning lessons, implementing learning, and evaluating learning. The data analysis technique used Miles and Huberman's interactive analysis with the stages of data reduction, data presentation, and conclusions. The data collected from informants, namely the school principal, fourth grade teachers, and fourth grade students at SD N 02 Wonorejo will be recorded in detail and

thoroughly. The results of the recording will be summarized, and focus on important things so that the results of data reduction provide a clear picture to make it easier to draw conclusions. After the data reduction process, the data can be presented then conclusions will be drawn which are presented in the form of narrative text regarding the teacher's challenges in implementing the independent learning curriculum in natural and social science learning for class IV students at SD N 02 Wonorejo.

Results and Discussion

In the implementation of the independent learning curriculum, there are three stages of natural and social science learning, namely from lesson planning, learning implementation, and learning evaluation.

Learning planning

Learning planning is a process that has a major influence on the success of the students themselves because learning planning contains several aspects such as plans, scenarios, designs, aspect indicators that adjust the theme and learning planning also becomes a guide in carrying out learning (Sufiati & Afifah, 2019). In planning lessons, teachers need to use various kinds of aids such as audio or video and help students to determine their own skills, knowledge, and resources needed to complete the learning process (Ain et al., 2019). A good learning plan must be designed in an effective, creative, innovative, and fun way so that all the targeted goals are achieved.

In the independent curriculum, there is a new paradigm regarding lesson planning, namely KI and KD are transformed into learning outcomes. Learning outcomes are an update of Core Competencies and Basic Competencies that are designed to strengthen the focus of learning on competency development (Amiruddin et al., 2020). From these Learning Achievements can be derived into learning objectives. Then from these learning objectives are arranged or arranged in a coherent and logical manner from the beginning of learning to the end of a phase to become a Flow of Learning Objectives (Puspendik Kemdikbud, 2021). Besides that, in the independent curriculum there are teaching modules that are equivalent or can be said to be a substitute for lesson plans. The teaching module is a teaching device that contains a series of plans in carrying out learning that can help and facilitate teachers in carrying out the learning process to achieve Learning Outcomes (CP). The results of interview can be seen in the following table:

	Table 4. Results of the Natural and Social Science Learning Planning Interview		
No	Informant		Answer
1	Headmaster	a.	The teacher makes lesson plans and studies the material to be taught to students.
		b.	Teachers are not too familiar with the format in compiling lesson plans or independent curriculum teaching modules.
2	Teacher	a.	Study the natural and social science material before carrying out learning and making learning plans.
		b.	Yes, the teacher observes the learning needs of students.
		C.	Overall, the steps in compiling lesson plans or teaching modules are not understood and not very detailed.
			not understood and not very detailed.

Table 4. Results of the Natural and Social Science Learning Planning Interview

The results of interviews, observations, and teacher documentation have several challenges in planning natural and social science lessons. The challenges are as follows. a. Constraints in determining learning strategies and models.

When the teacher diagnoses students' learning needs, there is a diversity of students, namely having different learning styles or ways, different levels of ability to explore knowledge, and different student mindset abilities so that the teacher is confused in determining the right learning strategy for students. For example, there are some students who use the audio-visual learning style, there are also some students who use the kinesthetic learning style, and so on. This becomes a teacher's challenge in choosing learning strategies and models to carry out the natural and social science learning process that will be carried out. This is in accordance with the opinion (Anggraeni, 2019) that the importance of choosing to use various strategies and approaches to determine the future so that the learning process goes well.

b. Difficulty in reducing learning outcomes to learning objectives.

In the learning design process, it becomes a challenge for the teacher to translate learning outcomes which is then translated into learning objectives. Unlike the previous curriculum, namely by reducing KI and KD to become learning objectives. Besides that, KI and KD tend to be shorter than learning outcomes. The learning outcomes in the book are presented in the form of long narratives, thereby making it difficult for the teacher to turn them into learning objectives. Because there are still difficulties in making learning objectives, it will also be difficult to determine the next steps. This is in accordance with research by (Rindayati et al., 2022) that one of the difficulties in designing lesson plans is not being able to develop learning objectives from learning outcomes.

c. Do not understand the format in detail in making teaching modules.

There are several differences between the teaching module and the previous RPP curriculum, so that the teacher still has difficulties in making the teaching module independently. The teacher still doesn't understand the format in making it and still has difficulty in reducing learning outcomes to a learning goal, so at the step in making teaching modules there are still obstacles. This is a new paradigm and becomes a challenge for teachers so that it is quite difficult to make teaching modules. This is in accordance with the statement (Fatihah, 2022) that not all teachers understand in making and developing teaching modules.

Implementation of learning

Implementation of learning, namely teaching and learning process activities which are the core of learning activities where when carrying out it is adjusted to the learning plans that have been made before (Majid, 2014). Learning is understood in a four-stage cycle where students must go through each stage, namely thinking, experiencing, reflecting, and acting (McCarthy, 2016). There are three main activities in the implementation of learning, namely preliminary, core, and closing activities. When learning takes place, teachers need to collaborate with students, so opportunities arise for students to engage in collaborative activities that support the learning process (van Leeuwen & Janssen, 2019).

Science is largely based on the assimilation of content and the development of skills (Mora, H., Signes-Pont, M. T., Fuster-Guilló, A., & Pertegal-Felices, 2020). Meanwhile, social science is one way in which researchers and practitioners can understand the human dimension of the conservation and management of natural resources (Bennett, Nathan J., 2017). In the independent learning curriculum there are several recommended learning models including inquiry learning models, project-based learning, and differentiated learning. But in practice the teacher may also apply other learning models. In natural and social science

learning, the focus is on process skills, so the inquiry model is recommended. There are six inquiry skills, namely starting from observing, then asking and predicting, then planning and carrying out investigations, then processing and analyzing information, and evaluating and reflecting.

During the process of implementing learning the role of the teacher is very important. According to (Buchari, 2018) there are four roles for the teacher, namely the teacher as class manager, demonstrator, mediator and facilitator, and evaluator. So that the teacher has a big contribution in the learning process so that it is carried out optimally. The results of interview can be seen in the following table:

No	Informant	Answer		
1 Headmaster		a. Teachers often convey material by writing on the whiteboard and then students take notes.		
		b. Teachers usually use whiteboards, markers, erasers.		
		c. Teachers are not only focused on one method only. Some of the methods that teachers use such as lectures, questions and answers, discussions.		
		d. There are no textbooks or worksheets for natural and social science subjects for students yet. Even 1 book for 10 students is still not available due to budget constraints.		
2	Teacher	a. Deliver material by writing material on the whiteboard and then students record in their respective books.		
		b. Using whiteboard, marker, eraser. There is no media specifically for natural and social science learning.		
		c. Lectures, questions and answers, discussions. Occasionally study outside the classroom by observing the surrounding plants.		
		d. There is no handbook for students either in the form of a textbook or LKS, so students must record independently in notebooks.		
3	Student	a. The teacher usually conveys the material by writing on the whiteboard and then we record in the notebook.		
		b. Teachers usually use whiteboards, markers, erasers.		
		c. The teacher usually lectures, questions and answers, discussions. Never studied outside the classroom with each student observing a different plant around.		

Table 5. Interview Results for the Implementation of Natural and Social Science Learning

The results of interviews, observations, and teacher documentation teachers face several challenges in implementing natural and social science learning. The challenges are as follows. a. There are no student books yet

Books are the main source of learning for students, because with books students can read freely and can explore knowledge more deeply. At SD N 02 Wonorejo there are no student books either in the form of textbooks or LKS. In the implementation of learning the teacher conveys the material by writing on the whiteboard then students record in their respective books. When learning takes place, students only hold on to their notebooks without any textbooks or worksheets so that they are less than optimal in exploring science during the natural and social science learning process. With limited books for students, this becomes a challenge for teachers when delivering material during learning. This is in accordance with research (Mawati et al., 2023) that one of the obstacles for teachers in implementing the independent curriculum is that textbooks for students are incomplete, only there are guidebooks for teachers who are complete.

b. Utilization of learning media is not maximized

The media used by the teacher in implementing natural and social science learning at SD N 02 Wonorejo are whiteboards, markers, and erasers. Teachers still rarely use

technology-based media in face-to-face learning. When delivering material the teacher often writes on the whiteboard and then students take notes in their respective books. Apart from that, students tend to get bored with the routine learning activities. This is in accordance with the opinion (Wahyu et al., 2020) which states that teachers are reluctant to use existing media and more often teach in the traditional way, namely the teacher explains to students while students record, remember, and write down their memories during exams.

c. Difficulty in associating science material with social studies

At the time the implementation of natural and social science learning became a challenge and a new paradigm for teachers to link science content to social studies. Even though the teacher has referred to the teacher's book, sometimes in the learning process, especially when delivering material, science and social studies are still separated. In accordance with research conducted by (Nurcahyono & Putra, 2022) one of the obstacles to implementing learning is linking subject matter with other relevant knowledge.

Evaluation of learning

Evaluation of learning is an ongoing process regarding the collection and explanation of information in assessing decisions made to design learning systems (Febriana, 2019). In the process of evaluating or assessing the implementation of the independent curriculum according to (Nurcahyono & Putra, 2022) there are several things, namely 1) At the beginning of learning there is a diagnostic test (cognitive tests for learning and non-cognitive to determine student background), and to determine character (happy/not students) at the end of learning. 2) KKM is abolished. 3) Teaching Modules can be made one module for one week and there are formative tests and summative tests. 4) The results of long-term project learning expect more character changes. 5) In learning assessment there are two report cards, namely academic assessment report cards and project assessment report cards. 6) Learning outcomes in the form of report cards will be approved by the school principal and reported to parents/guardians of students. The results of interview can be seen in the following table:

No	Informant	Answer
1	Headmaster	a. In evaluating teacher learning using multiple choice questions and short answers.
		b. The learning evaluation process is basically the same, there are only slight differences from the previous curriculum.
2	Teacher	a. Make multiple choice questions and short answers for learning evaluation.
		b. There is a slight difference with the previous curriculum in the learning evaluation process. In addition, there are no books for practicing questions for students.

Table 6. Results of the Natural and Social Science Learning Evaluation Interview

The results of interviews, observations, and teacher documentation, teachers have challenges in evaluating natural and social science learning. The challenges are as follows. a. The technique in carrying out the assessment has not been maximized.

In carrying out the assessment, the teacher uses written or oral test techniques in the form of multiple choices or short descriptions. There are 30 multiple choice questions and 10 essay questions. From these questions the teacher carried out the assessment and got the results in terms of students' cognitive abilities. Teachers are still lacking in carrying out other assessment techniques in the form of practices, projects, products, and portfolios. This is in accordance with the learning and assessment guidebook (Puspendik Kemdikbud, 2021) that

what teachers need to leave behind is only using oral or written test techniques and not using other assessment techniques such as observation, projects, practices, products, and portfolios.

From the results of this study, it can develop knowledge and insights related to teacher challenges in implementing the independent curriculum in natural and social science learning. For schools, this can be used as evaluation material in the future in implementing the independent learning curriculum properly. Teachers and students can maximize learning even better by knowing the various challenges in implementing the independent curriculum in natural and social science learning. Researchers can conduct research that can be followed up in the future to find better solutions. While the limitations of this research are that this research only focuses on the challenges faced by teachers, not covering broader challenges such as challenges faced by students, parents, or schools. In addition, there is no detailed and overall solution to deal with these challenges. So that future researchers can conduct research on the challenges in implementing the independent curriculum in natural and social science learning the independent curriculum in natural and social science conduct research on the challenges in implementing the independent curriculum in natural and social science learning in a more comprehensive manner and provide detailed solutions to deal with these challenges.

Conclusion

The conclusion of this study is that there are challenges faced by teachers in implementing the independent learning curriculum in natural and social science learning for fourth grade students at SD N 02 Wonorejo. There are three stages in learning, namely lesson planning, learning implementation, and learning evaluation. The challenges faced by teachers at the planning stage were constraints in determining learning strategies and models, difficulties in reducing learning outcomes to learning objectives, and not understanding the format in detail in making teaching modules. While the challenges faced by teachers in the process of implementing learning include the absence of student books, the use of instructional media is not maximized, and difficulties in linking science material with social studies. In the evaluation of learning, the challenges faced by the teacher, namely the technique in carrying out the assessment have not been maximized. By knowing the various kinds of challenges faced by teachers, it can be an evaluation and can maximize natural and social science learning better in the future. Teachers can learn how to arrange lesson plans in the independent curriculum regarding formats and how to reduce learning outcomes and create teaching modules. Besides that teachers can maximize existing media such as technology and the surrounding environment in implementing learning and teachers can evaluate learning with various evaluation techniques

Bibliography

- Abdullahi, N. J. K. (2022). Curriculum Management Strategies and Effective Implementation of Universal Basic Education in Nigeria. *Profesi Pendidikan Dasar*, 9(1), 55–70. https://doi.org/10.23917/ppd.v9i1.18016
- Ain, Q.-, Farah-Shahid, Muhammad, A., Muhammad, A., Muhammad, A., & Muhammad, M. (2019). A review of technological tools in teaching and learning computer science [Una revisión de las herramientas tecnológicas en la enseñanza y el aprendizaje de la informática]. Eurasia Journal of Mathematics, Science and Technology Education, 15(11), 17. https://n9.cl/igiqu
- Ainia, D. K. (2020). Merdeka Belajar Dalam Pandangan Ki Hadjar Dewantara dan Relevansinya Bagi Pengembangan Pendidikan Karakter. Jurnal Filsafat Indonesia, 3(3), 95–101. https://doi.org/https://doi.org/http://dx.doi.org/10.23887/jfi.v3i3.24525

- Amaliyah, N., & Handayani, L. R. (2021). The Use of Application Namely Quizizz in Elementary School Students' Outcomes . Proceedings of the 1st Annual International Conference on Natural and Social Science Education (ICNSSE 2020), 547(Icnsse 2020), 42–48. https://doi.org/10.2991/assehr.k.210430.007
- Amiruddin, Hasim, M., & Irfan, A. M. (2020). Pkm Guru Pamong Dan Mahasiswa Kkn Ppl Terpadu Pembelajaran Berbasis Merdeka Belajar Dalam Situasi Pandemi Covid-19. Seminar Nasional Hasil Pengabdian Kepada Masyarakat, 1097–1105.
- Anggraeni, N. E. (2019). Strategi Pembelajaran Dengan Model Pendekatan Pada Peserta Didik Agar Tercapainya Tujuan Pendidikan Di Era Globalisasi. *ScienceEdu*, *June*, 72. https://doi.org/10.19184/se.v2i1.11796
- Bambaeeroo, F., & Shokrpour, N. (2017). The impact of the teachers' non-verbal communication on success in teaching. *Journal of Advances in Medical Education & Professionalism*, 5(2), 51.
- Bdiwi, R., Runz, C. De, Faiz, S., Ali-cherif, A., Bdiwi, R., Runz, C. De, Faiz, S., & Smart, A. A. (2022). Smart learning environment : Teacher 's role in assessing classroom attention. *Research in Learning Technology*, 27.
- Bennett, Nathan J., at all. (2017). Conservation social science: Understanding and integrating human dimensions to improve conservation. *Biological Conservation*, 205, 93–108. https://doi.org/10.1016/j.biocon.2016.10.006
- Buchari, A. (2018). Peran Guru Dalam Pengelolaan Pembelajaran. Jurnal Ilmiah Iqra', 12(2), 106–124.
- Cholily, Y. M., Restian, A., & Istanti, B. (2023). Instructional design : Urgensi Kurikulum Budaya Berbasis Muatan Lokal Kabupaten Lembata Nusa Tenggara Timur. Jurnal Pendidikan Ke-SD-An, 6(2), 70–79.
- Darling-Hammond, Linda, et al. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24, 2.
- Fatihah, W. (2022). Diseminasi Modul Ajar pada Kegiatan Implementasi Kurikulum Merdeka dan Proses Pembelajaran di Kelas. *Jurnal Abdimas Kartika Wijayakusuma*, 4(1), 1–11.
- Febriana, R. (2019). Evaluasi Pembelajaran. Jakarta: Bumi Aksara.
- Ghufron, L. F. H. P. A. (2022). Menjawab Tantangan Era Society 5.0 Melalui Inovasi Kurikulum Merdeka Di Sekolah Dasar. *Jurnal Pendidikan Dan Konseling*, 4(5), 5197–5202.
- Kemendikbudristek. (2022). Buku Saku: Tanya Jawab Kurikulum Merdeka. *Kemendikbudristek*, 9–46. ult.kemdikbud.go.id
- Mackatiani, C. I., Likoko, S. N., & Mackatiani, N. (2022). Coronavirus Era: Implications for Reconceptualization of Curriculum Delivery in Kenyan Primary and Secondary Schools. *World Journal of Education*, *12*(3), 29. https://doi.org/10.5430/wje.v12n3p29

Majid, A. (2014). Strategi Pembelajaran. Bandung: Rosdakarya.

Mawati, A. T., Hanafiah, & Arifudin, O. (2023). Dampak pergantian kurikulum pendidikan

terhadap peserta didik sekolah dasar. *Jurnal Primar Edu*, 1(1), 69–82. https://jurnal.rakeyansantang.ac.id/index.php/primary/article/view/316/89

- McCarthy, M. (2016). Experiential Learning Theory: From Theory To Practice. Journal of Business & Economics Research (JBER), 8(5), 131–140. https://doi.org/10.19030/jber.v8i5.725
- Minsih, Fuadi, D., & Rohmah, N. (2023). Character Education Through an Independent Curriculum. *Al-Ishlah: Jurnal Pendidikan*, *15*(1), 597–602. https://doi.org/10.35445/alishlah.v15i1.2812
- Minsih, M., & D, A. G. (2018). Peran Guru Dalam Pengelolaan Kelas. Profesi Pendidikan Dasar, 1(1), 20. https://doi.org/10.23917/ppd.v1i1.6144
- Mora, H., Signes-Pont, M. T., Fuster-Guilló, A., & Pertegal-Felices, M. L. (2020). A collaborative working model for enhancing the learning process of science & engineering students. *Computers in Human Behavior*.
- Muhie, Y. A., & Woldie, A. B. (2020). Integration of Artificial Intelligence Technologies in Teaching and Learning in Higher Education. *Science and Technology*, *10*(1), 1–7. https://doi.org/10.5923/j.scit.202001001.01
- Nādu, T. (2022). A Path Towards Child-Centric Artificial Intelligence based Education. International Journal of Early Childhood Special Education (INT-JECS), 14(03), 9915–9922. https://doi.org/10.9756/INT-JECSE/V14I3.1145
- Nugraha, A., & Aminur Rahman, F. (2021). Android Application Development of Student Learning Skills in Era Society 5.0. *Journal of Physics: Conference Series*, 1779, 1.
- Nurcahyono, N. A., & Putra, J. D. (2022). Hambatan Guru Matematika Dalam Mengimplementasikan. *Wacana Akademika: Majalah Ilmiah Kependidikan*, *6*(September), 377–384.
- Pendi, Y. O. (2020). Merdeka Belajar Yang Tercermin Dalam Kompetensi Profesional Guru Bahasa Inggris SMP Negeri 01 Sedayu. *Seminar Nasional Pendidikan*, 291–299. http://jurnal.ustjogja.ac.id/index.php/semnas2020/article/view/7743
- Puspendik Kemdikbud. (2021). Pembelajaran dan Asesmen. In *Pusat Asesmen dan Pembelajaran*. Jakarta: Badan Penelitian dan Pengembangan dan Perbukuan Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.
- Rindayati, E., Putri, C. A. D., & Damariswara, R. (2022). Kesulitan Calon Pendidik dalam Mengembangkan Perangkat Pembelajaran pada Kurikulum Merdeka. *PTK: Jurnal Tindakan Kelas*, 3(1), 18–27. https://doi.org/10.53624/ptk.v3i1.104
- Rosidah, T. C., Pramulia, P., & Susiloningsih, W. (2021). Analisis Kesiapan Guru Mengimplementasikan Asesmen Autentik Dalam Kurikulum Merdeka Belajar. Jurnal Pendidikan Dasar, Vol 12 No(1), 87–103.
- Sasmita, E. D. (2022). Analisis Faktor-Faktor Penyebab Kendala Guru Dalam Menerapkan Kurikulum Merdeka (Studi Kasus: Sdn 21 Koto Tuo, Kec. Baso). Jurnal Pendidikan Dan Konseling, 4(20), 1349–1358.

Seechaliao, T. (2017). Instructional Strategies to Support Creativity and Innovation in

Education. *Journal of Education and Learning*, *6*(4), 201. https://doi.org/10.5539/jel.v6n4p201

- Sufiati, V., & Afifah, S. N. (2019). Peran perencanaan pembelajaran untuk performance mengajar guru pendidikan anak usia dini. *Jurnal Pendidikan Anak*, 8(1), 48–53. https://doi.org/10.21831/jpa.v8i1.26609
- Syarif, M. I., Batusangkar, I., & Barat, S. (2020). Disrupsi Pendidikan IPA Sekolah Dasar dalam Menyikapi Merdeka Belajar dan Kampus Merdeka Menuju New Normal Pasca COVID-19. Jurnal Basicedu, 4(4), 929–937.
- van Leeuwen, A., & Janssen, J. (2019). A systematic review of teacher guidance during collaborative learning in primary and secondary education. *Educational Research Review*, 27(July 2018), 71–89. https://doi.org/10.1016/j.edurev.2019.02.001
- Wahyu, Y., Edu, A. L., & Nardi, M. (2020). Problematika Pemanfaatan Media Pembelajaran IPA di Sekolah Dasar. Jurnal Penelitian Pendidikan IPA, 6(1), 107. https://doi.org/10.29303/jppipa.v6i1.344