

Evaluating The Implementation Of Natural And Social Science Learning (IPAS) In The Independent Primary School Curriculum

Wandri Ramadhan¹, Andi Prastowo², Kathlyn Joyce Nebres³

^{1,2} Master of Madrasah Ibtidaiyah Teacher Education, UIN Sunan Kalijaga Yogyakarta, Indonesia. ³ Don Mariano Marcos Memorial State University, Philippines.

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Correspondence

E-mail

*¹ 21204082025@student.uin-suka.ac.id

² andi.prastowo@uin-suka.ac.id

³ kathlynjoyce.nebres@student.dmmmsu.edu.ph

ABSTRACT

This research aims to reveal the evaluation of the implementation of Natural Science and Social Science (IPAS) learning in the fourth grade of elementary school within the Merdeka Curriculum, as well as the supporting factors and obstacles faced by teachers in implementing the learning process. The method used in this research is qualitative research with a descriptive study type. The research focuses on evaluating the CIIP model by Stufflebeam, which focuses on process evaluation. The object of this research is the learning process activities of fourth-grade students at Adisucipto 1 Public Elementary School in Yogyakarta, while the research subjects are fourth-grade teachers. Data collection techniques consist of observation, documentation, and interviews to strengthen the research results. The qualitative comparative technique is used for data analysis. The conclusion of this research is that the implementation of IPAS learning in the fourth grade of elementary school within the Merdeka Curriculum is in accordance with the process standards set in Permendikbudristek No. 16 of 2022. Supporting factors come from the leadership of the school principal, training and workshops related to the implementation of the Merdeka Curriculum, good student enthusiasm, support for school facilities and infrastructure in providing learning materials, teacher activities, the ability to use digital media such as computers and smartphones, and of course, the role of parents in their child's education. Meanwhile, the obstacles faced by teachers in implementation are that they are still new and have not fully understood the components and guidelines for learning and assessment in the Merdeka Curriculum.

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INTRODUCTION

The development of education in Indonesia is closely tied to curriculum reform. Each semester, the curriculum undergoes a definite stage of evaluation. Some are skeptical that when policymakers change, so does the curriculum (Sugiri & Priatmoko, 2020). In the realm of education, curriculum changes are deemed necessary because education cannot be isolated from the social and cultural context prevalent in society (Prastowo, 2018). According to regulations issued by the Ministry of Education, Culture, Research, and Technology (MoECRT), it contains regulations for educational institutions as additional options related to the implementation of learning recovery and the improvement of education quality for the years 2022-2024. This guideline, in 2024, concerning the national curriculum, will undergo improvements based on the assessment framework for learning recovery (Ujang Cepi Barlian, 2022). The foundational role of curriculum development is crucial. If the curriculum lacks a strong foundation, it can easily become unsettled, and the individuals (students) produced by the education system become the stakes (Mubarok et al., 2021). This information indicates that the changes in the curriculum are a form of improvement or refinement by the government to enhance the quality of education in Indonesia.

The curriculum is one of the most crucial components for improving the quality of education. Education professionals interested in curriculum development have different understandings of it. In the book "Curriculum Planning for Better Teaching and Learning" by J. Galen Saylor and William M. Alexander, the curriculum is described as one of the school's efforts in imparting knowledge to students in a way that is useful both within the school and in their social environment (R. Masykur, 2018). The "Merdeka Belajar" curriculum by the Ministry of Education and Culture is regulated in Law Number 3 of 2020 regarding National Education Standards. Planning should be prepared based on education-oriented standards or performance-oriented and competency-based curricula (Wartoyo, 2022). The "Merdeka Belajar" program is one of the initiatives to create a pleasant learning environment in school institutions, fostering a joyful atmosphere for both students and teachers. The inception of the "Merdeka Belajar" program was prompted by numerous complaints from parents about the previous national education policies, including varying minimum scores required for students in different study areas (Sherly et al., 2020). "Merdeka Belajar" embodies a concept that liberates

thinking in learning, and the essence of liberated thinking begins with teachers (Daga, 2022).

In the Merdeka Belajar curriculum, there is a notable difference in subjects, including the integration of the Natural Sciences (IPA) and Social Sciences (IPAS) subjects into a combined subject known as Natural and Social Sciences (IPAS). This integration is considered a new innovation in education (Ramadhan & Santosa, 2023). Referring to the statement by Dwi Nurani and Lanny Anggraini (2022) in the Merdeka Belajar curriculum handbook, the reason for combining these two subjects is that elementary school students inherently observe everything in an integrated and holistic manner. The integration aims to make students aware of the importance of managing their natural and social environment as a unified whole.

However, in its implementation, the Natural and Social Sciences (IPAS) subject faces challenges related to the execution of the Merdeka Belajar curriculum. These challenges include issues with the planning process, which is not fully aligned with the guidelines outlined in the Merdeka Belajar curriculum. The complexity of the learning process, including content and time allocation, assessment and formative assessment, and the application of differentiated learning models, are among the obstacles encountered in the implementation of the Merdeka Belajar curriculum.

Learning is the centerpiece of school education, and everyone involved, including school leaders, teachers, students, and parents, desires an optimal learning and teaching process (Astuti et al., 2018). The implementation of the Merdeka Belajar curriculum is more flexible compared to the previous curriculum. For example, in the creation of textbooks and teaching materials at schools, full authority is given to develop both aspects (Aprima & Sari, 2022). The curriculum should be designed as flexibly as possible to meet the needs of students and achieve the expected qualifications (Fitriyah & Wardani, 2022). The goal of curriculum design is to transform the idea of desired learning objectives and content into elements that drive the practice of learning processes leading to the desired learning outcomes (Nienke M. Nieveen, 2022).

Curriculum evaluation is necessary to adapt to diverse students, various components, and understandings of how students are stigmatized as "successful" or "failed" within the school system (Katrina Marzetta dan Hillary Mason, 2018). The goal of curriculum evaluation is to assess the overall effectiveness of the curriculum against various criteria (Magdalena et al., 2020). Furthermore, curriculum evaluation aims to inform policymakers,

curriculum developers, and other education professionals about the extent to which improvements can be made (Anderson, 2022). Evaluation is crucial in formal education, as teachers become aware of their performance in the teaching and learning process. On the other hand, curriculum developers use evaluation to gather information for planning improvements. This information is identified and incorporated into the system, including the models within it (Hamdi, 2020). Program evaluation, in this context, is performed by evaluating the learning process, among other things, to determine if the program functions effectively. Subsequently, necessary adjustments are made to the curriculum program (Altunova & Artun, 2020).

It is important to note that the choice of evaluation model should align with the implemented curriculum planning model. Specifically, utilizing an assessment model that refers to predetermined curriculum objectives can distort the procedural or curriculum development approach, particularly because the assessment criteria may not reflect the planner's and teacher's goals (Kelly, 2016). The evaluation model used is based on prioritized components in curriculum implementation (Mohammad Adnan, 2017). Several evaluation models are employed by curriculum experts, with one of the foundational models in education being the CIPP (Context, Input, Process, Product) evaluation model by Stufflebeam. This decision-oriented model is designed to assist leaders (school principals and teacher councils) in policy-making (R. Masykur, 2018). According to Stufflebeam as cited in Mahmudi (2011) evaluation aims not only to identify errors but crucially to facilitate improvement. Evaluation using the CIPP model (Context, Input, Process, Product) is highly effective due to its fundamental, comprehensive, and integrated nature. This includes core learning objectives such as goals, content, teaching-learning processes, and assessment itself, with a focus on all parties involved in learning. This evaluation process is integrated as it involves various stakeholders in learning, especially students (Kurniawati, 2021).

In her research, Meiskarti Luma (2020) found that the implementation of learning at SDN 2 Tabongo was assessed as excellent and effective according to the evaluation using the CIPP method. Furthermore, Yoga Budi (2017) revealed from his research that the use of the CIPP evaluation model was quite effective, meeting the needs for successfully implementing learning. Considering the effectiveness of classroom learning, the evaluation process was well-executed and achieved its objectives. Generally, research on integrated curriculum covers learning patterns and management, pre-implementation, opinions, conceptual perceptions, and inductive thinking within each program (Makiabadi & Abbasiane, 2021). The focus of this study, in contrast to previous research, lies in evaluating the process of implementing

IPAS (Natural and Social Sciences) learning in the fourth-grade elementary school within the context of the Merdeka Belajar Curriculum.

Based on the explanation provided, the curriculum needs to be evaluated in terms of its learning implementation to inform policymakers, curriculum developers, and other education professionals about the extent to which improvements can be made in the implementation of the Merdeka Belajar Curriculum, especially in the execution process. Therefore, the problem addressed in this research is how the implementation of Natural and Social Sciences (IPAS) learning is carried out in the fourth-grade elementary school within the context of the Merdeka Belajar Curriculum. The research objective is formulated to reveal the evaluation of the implementation of Natural and Social Sciences (IPAS) learning in the fourth-grade elementary school within the Merdeka Belajar Curriculum and to identify the supporting constraints faced by teachers in implementing this type of learning.

RESEARCH METHODS

Types of research

The type of research used is qualitative research with a descriptive research design. Qualitative research, according to Fitrah (2017) is highly appropriate for portraying qualitative phenomena whose data sources come from words, actions, behaviors, and documents, which are then analyzed in narrative form rather than with statistical data or numbers. In qualitative research, there is no treatment, manipulation of variables, or development of operational variable definitions. To achieve the goals of this qualitative research, common data collection techniques are utilized, such as observation and interviews. This study focuses on the object of the learning process activities of Natural and Social Sciences (IPAS), specifically on the topic of the States of Matter and Changes in the fourth-grade of Adisucipto 1 Public Elementary School in Yogyakarta. This research was conducted at SDN Adisucipto 1 Yogyakarta in the odd semester of the 2022/2023 academic year. Meanwhile, the research subjects were class IV teachers coded as P1 and class IV students.

Research procedure

Information is recorded and gathered through observation, semi-structured interviews, and documentation. In semi-structured interviews, the implementation is more flexible compared to structured interviews, meaning that researchers can obtain and explore additional data in the field beyond what

has been formulated beforehand. Meanwhile, in observation, an observation instrument is used to monitor learning activities in accordance with the standards of the learning process and indicators of learning implementation. The observation sheet in this research refers to the standards of the learning process as stated in the Ministry of Education and Culture Regulation No. 16 of 2022..

Data, Instruments and Data Collection Techniques

In collecting data, researchers compiled observation sheets and interview tables which were arranged as follows:

Table 1. Learning Process Standard Observation Sheet

Process Standards	Indicator	Implementation Object
Learning Planning	Formulating Learning Achievements, formulating methods or steps to achieve learning goals, and formulating ways to assess the achievement of learning goals.	
Implementation of Learning	Learning is held in a learning atmosphere that is interactive, inspiring, fun, challenging, motivates students to participate actively, and provides sufficient space for initiative, creativity, independence in accordance with the students' talents, interests and physical and psychological development.	
Learning Assessment	Formative assessment and summative assessment.	

The interview technique is utilized to gather data related to IPAS (Natural and Social Sciences) learning and the challenges faced by fourth-grade teachers. The interviews were conducted face-to-face at SDN 1 Adisucipto 1 Yogyakarta on Tuesday, October 25, 2022, with a duration of

approximately 30 minutes. The following is the outline of the interview instrument used by the researcher.

Table 2. Interview Grid

1. Does science and science learning in the independent curriculum refer to process standards?
2. Is the planning in science and science learning in accordance with process standards?
3. Has the implementation of IPAS learning been in accordance with the standard process?
4. Has the assessment of student learning outcomes been in accordance with the standard process?
5. What are the obstacles in learning that refer to the standard process?

Data analysis technique

Then documentation, in the form of records of events, pictures, or other monumental works that support the research findings, is utilized. The documentation method is employed in this research with the aim of obtaining information through documents such as lesson implementation plans (Rahmawati et al., 2021). Next, the collected data is analyzed using data reduction, data presentation, and drawing conclusions/verification. Because the amount of data obtained from the field is quite substantial, the researcher requires meticulous and detailed notes. The longer the researcher stays in the field, the greater the amount of data obtained. Therefore, the researcher needs to promptly analyze the data through data reduction.

Data reduction, according to Muhson (2012), is a thinking process that requires intelligence, flexibility, and deep understanding. For novice researchers, the data reduction process can be assisted by discussing it with colleagues or experts in the relevant field. Through such discussions, the researcher's insights will develop, enabling them to reduce various data that holds findings and detailed theoretical knowledge. Data presentation, according to Kalida in Rahmawati et al. (2021) is a collection of information that can assist researchers in drawing conclusions and taking action. Through various data presentations, researchers can understand the situation and determine actions based on the understanding gained from the data. The data collected by the researcher from interviews and documentation in the field will be reduced by selecting information related to the research problem. This data can then be presented in the form of a narrative or text.

In the initial stages, the conclusions drawn tend to be tentative and may change when stronger evidence is available in subsequent data collection phases. However, if the initially drawn conclusions are supported by valid and consistent evidence when the researcher returns to the field to gather additional data, those conclusions become stronger and more reliable (Rahmawati et al., 2021).

RESEARCH RESULTS AND DISCUSSION

RESULTS

This research aims to understand the implementation of Natural and Social Sciences (IPAS) learning in the fourth grade at SDN Adisucipto 1 Yogyakarta. It seeks to explore the entire process, from lesson planning to the execution of teaching and assessment of learning outcomes that occurs within the teaching process.

Social Science Learning Planning in class IV of SD Negeri Adisucipto 1 Yogyakarta

Based on the policy of the Minister of Education and Culture of the Republic of Indonesia No. 56 of 2022 regarding guidelines for implementing the curriculum for the purpose of learning recovery (Merdeka Curriculum) in the context of elementary and secondary education. It states that lesson planning is designed in the form of the Learning Objectives Flow (ATP), learning achievements, and Learning Modules that refer to the content standards.

Based on the observation results regarding the lesson planning by fourth-grade teachers, data show that teachers create clear and simple flexible learning documents, including designing the Learning Objectives Flow (ATP), learning achievements, teaching modules, and Lesson Implementation Plans (RPP) in the subjects of Natural and Social Sciences (IPAS) for fourth-grade elementary school. Furthermore, the fourth-grade teachers, in the preparation of the Learning Objectives Flow, have not applied the mapping of learning objectives in one phase, although in principle, the arrangement of the learning objectives flow should be completed in one phase. While the learning

achievements have been formulated according to the regulations, there are still conceptual errors in their formulation due to uncertainties in determining basic competencies and the direction of learning material in IPAS lessons. Additionally, the preparation of the Teaching Module indicates that the systematic arrangement of teaching modules for the Natural and Social Sciences (IPAS) subject, specifically the States of Matter and Changes, in the fourth grade at SD Negeri 1 Adisucipto is in line with guidelines and adapts to existing principles, as outlined in the teaching and assessment guide by the Ministry of Education and Culture.

Implementation of Science and Technology Learning in class IV of SD Negeri Adisucipto 1 Yogyakarta

Implementation of learning activities involves a series of activities, consisting of: Introduction Activity, Orientation Activity, Aperception Activity (2 hours), Motivation Activity, and Closing Activity. The series of learning implementation activities are outlined in the teaching module.

Based on the observation results during the orientation activity in the learning process, according to observation data on the implementation of the Natural and Social Sciences (IPAS) learning activity on the topic of the States of Matter and Changes in the fourth grade at SD Negeri 1 Adisucipto, the orientation activity consists of students and teachers starting with a prayer together. The students are greeted, and attendance is checked together with the teacher. This activity has been carried out in accordance with the guidelines specified in the learning guide.

In the aperception activity conducted by the fourth-grade teacher, based on the observation results, the compatibility of learning implementation in this core activity in the subject of Natural and Social Sciences (IPAS) on the topic of the States of Matter and Changes in the fourth grade at SD Negeri 1 Adisucipto is based on the approach of the differentiated learning model and the application of the Basic Learning Program model, a direct instruction model, which is already in line with its implementation. This activity is the core activity in learning because it involves the material presented by the teacher. In the motivation activity, based on the observation data in the Natural and Social Sciences (IPAS) learning on the topic of the States of Matter and Changes in the fourth grade at SD Negeri 1 Adisucipto, the teacher provides an overview of the benefits of learning in daily life. The teacher then communicates the learning objectives. This activity is carried out by the teacher in the field in accordance with its sequence and the guidelines provided in the teaching module.

In the closing activity, according to the observation data, in the learning process, the closing activity is the final part of the teaching module prepared by the teacher in the subject of Natural and Social Sciences (IPAS) on the topic of the States of Matter and Changes in the fourth grade at SD Negeri 1 Adisucipto, such as: The teacher provides reflection, then students can summarize the material learned today. Next, students communicate the challenges faced in following today's lesson. After that, students present assignments, and finally, the teacher, along with the students, concludes the activity with a prayer and greetings.

Assessment in science and science learning in class IV of SD Negeri Adisucipto 1 Yogyakarta

Based on the observation and documentation results, the assessment implementation in the subject of Natural and Social Sciences (IPAS) on the topic of the States of Matter and Changes in the fourth grade at SD Negeri 1 Adisucipto is already in line with the assessment of the Merdeka Curriculum, as outlined in the teaching module prepared by the teacher. This includes a scoring rubric covering concept comprehension, creativity and aesthetics, problem-solving, and independence. In terms of assessment, the fourth-grade teacher at SD Negeri 1 Adisucipto has already adopted the Merdeka Curriculum assessment, but there are still errors leading to inaccuracies in the formulation of assessments, including the assessment of attitudes, abilities, and skills. The assessment takes the form of reporting student learning outcomes in the form of a report based on documented assessment results, including portfolios, exhibitions of works, clippings, and focused exercises guided by the teacher.

Then, the interview quotes from the teacher also reveal difficulties in understanding diagnostic assessment in the Merdeka Curriculum. According to the interview quotes from the P1 class teacher:

“Assessment in the Merdeka Curriculum still has similarities with the previous authentic assessment in the 2013 curriculum. However, what differentiates it is the presence of many divisions such as diagnostic assessment, summative assessment. There is still uncertainty about the arrangement and components assessed in the Merdeka Curriculum because the workshop held earlier did not provide a thorough understanding of assessment material in the Merdeka Curriculum, such as the formulation of assessments, including the assessment of attitudes, abilities, and skills.”

Supporting and inhibiting the implementation of science and science learning for grade IV elementary schools in the Independent Curriculum

In the implementation of the Merdeka Curriculum in Grade IV at SDN Adisucipto 1 Yogyakarta, the researcher examines the supporting factors and inhibiting factors of implementing learning in the Merdeka Curriculum in Grade IV. The implementation in Grade IV has only been running for two semesters, with workshops and training conducted by the education department in the city of Yogyakarta, as well as training among fellow teachers within the cluster where the school is located. As a result, Grade IV teachers have received instructional materials on the implementation of the Merdeka Curriculum.

The researcher found supporting factors for the implementation of the Merdeka Curriculum in the learning process in Grade IV at SD Negeri Adisucipto. Among these factors are: the school principal as a leader providing support and motivation to Grade IV teachers who have received training and workshops related to the implementation of the Merdeka Curriculum, enthusiastic and well-behaved students, support from the school's facilities and infrastructure in providing learning tools, the active involvement of teachers and the implementation of the school cluster's MGMP (Teacher Working Group), the ability to use digital media such as computers and smartphones, and, of course, the role of parents in their children's education at school.

Based on the interview with the Grade IV homeroom teacher regarding support for the implementation of the Merdeka Curriculum, Grade IV teacher P1 stated, *"Factors such as the school principal, parents, and students support the improvement of the curriculum. Additionally, educational facilities that support the curriculum are available, but there is a need for continuous capacity building and understanding for me as a Grade IV teacher in implementing this Merdeka Curriculum."*

Meanwhile, the researcher also identified inhibiting factors in the implementation of the Merdeka Curriculum in Grade IV at SDN Adisucipto 1, including the following: Grade IV teachers still do not fully understand the components and guidelines for teaching and assessment in the Merdeka Curriculum. Furthermore, the conducted training is not well-implemented, affecting the teachers' understanding of the curriculum. The selection of teaching methods is considered less attractive.

Based on the interview with Grade IV homeroom teacher P1, *"Due to the curriculum change, I am just starting to understand and become familiar*

with new terms, which essentially have the same essence as in the previous curriculum. The guidelines provided are sometimes confusing, and the training is not yet regularly conducted."

DISCUSSION

In lesson planning, in accordance with the regulations of the Ministry of Education and Culture of the Republic of Indonesia, Number 56 of 2022 concerning learning guidelines, the Process of Learning Objectives (ATP) functions similarly to what is now known as a 'syllabus'. It involves the planning and scheduling of lessons and assessments within a one-year syllabus (Ramadhan et al., 2023). Therefore, educators can only use the learning objectives flow by: first, designing their own learning outcomes (CP), second, developing and modifying the provided templates, and third, taking examples provided by the government. For educators who plan their own learning objectives, the formulated learning objectives in the previous steps must be arranged sequentially, systematically, and logically from the beginning to the end of the process. The learning process, whose objectives should also be linear and unidirectional, follows the sequence of daily learning activities (Nahar et al., 2022).

It is crucial for educators to understand the curriculum content in connecting teaching and learning activities. By doing so, teachers are recognized as a significant resource for the implementation and achievement of curriculum objectives (Zama dan Mashiya, 2022). Furthermore, quoting the explanation from (Budiastuti et al., 2021). Instructional design is a systematic approach that includes learning needs analysis, formulating objectives, developing strategies, instructional materials, and assessment tools to achieve the expected learning outcomes. The use of teaching and learning tools is essential for the success of the learning process. The instructional components should adhere to the guidelines found in the teaching and learning tools (Akmal Rijal dan Putra, 2019).

The teaching module is developed from the learning objectives flow used by teachers in conducting the teaching and learning process according to the students' profiles and the learning outcomes of Pancasila (Asrizal et al., 2022). Teaching modules are a continuation of the learning objectives of a course and are organized according to the level or developmental stage of students. The teaching module is developed based on the principles of characteristic learning, the abilities, and interests of students at each level (Supriatna & Lusa, 2021). Here are four criteria that a teaching module must meet: Firstly, Essential - understanding the subject concepts through learning experiences and various subjects. Secondly, Engaging, relevant, and

challenging - it should enhance learning interest and actively involve students in the learning process. Thirdly, Meaningful and Contextual - knowledge and experiences that students have relate to the context in which students find themselves. Lastly, Continuous - meaning the sequence of learning activities is related to student learning.

A teaching module is a part of the learning materials or instructional design that adheres to the curriculum, applied simultaneously with the goal of achieving predetermined competency standards (Nurdyansyah & Mutala'iah, 2015). Learning modules are designed to meet the needs of students based on the environment so that they are more easily understood, integrated, and can be used independently (Candra et al., 2020). Furthermore, teaching modules play a crucial role in the teaching and learning process for both teachers and students; therefore, teaching modules are essential media for improving grades in the learning process (Maulinda, 2022).

referring to the process standards on lesson planning in the Minister of Education and Culture Regulation No. 16 of 2022, which includes planning learning activities by formulating learning objectives for a unit of study based on Learning Outcomes, outlining the methods or steps to achieve learning objectives, and formulating methods to assess the achievement of learning objectives (Turmuzi, 2023). While there is conformity between the standards and their implementation in the established learning, there are doubts among teachers as outlined above. Therefore, teachers need to be more competent and creative in developing instructional materials.

In the implementation of learning, the fourth-grade teacher in the introduction is in line with the preparation activities outlined in the Minister of Education and Culture Regulation No. 81a of 2013, as explained by Andi Prastowo, (2015) The preparation activities conducted by the teacher are as follows: (a) Prepare students mentally and physically to participate in the learning process. (b) Ask questions about what is being learned and relate it to what has been learned. (c) Pose questions to students. (d) State the learning objectives. (e) Provide a summary of the material and activities to be carried out by students. Based on the data obtained from the observation of the implementation of learning activities in the Natural Sciences and Social Sciences (IPAS) subject on the topic of the Forms of Matter and Changes in fourth-grade at SD Negeri 1 Adisucipto, the introductory activities in the implementation of learning are in accordance with the learning and assessment guidelines issued by the Ministry of Education and Culture regarding Process Standards, and the teacher implements all components completely.

Learning the procedures and processes of prayer should be done from an early age. This is explained in the Minister of National Education Regulation in the section "*Scope of the Development of Religious and Moral Values*" to achieve group development standards (Mahardhika, 2015). The researcher concludes that orientation activities are carried out so that learning starts with spiritual activities and preparation by teachers and students regarding attendance.

Then, the function of aperception in every learning activity is the prior knowledge (perception) of students. Educational activities should provide learning experiences that are relevant to students' prior knowledge and tailored to their skills and values (Fatihatul Kitab, 2012). Aperception is an activity carried out by the teacher before the core learning activity begins to attract the attention of students to focus more on new information or experiences conveyed by the teacher. The goal is to capture the students' attention so that they can focus on the learning. Additionally, it prepares students mentally and physically (Imrotin & Sari, 2022).

In the motivation activity, the teacher must be able to develop more innovative and engaging learning to enhance students' learning motivation. Learning motivation essentially involves intrinsic and extrinsic motivation in students who are learning to bring about behavior change, mostly with several supporting indicators or elements. It plays a crucial role in learning success (Faradita, 2017). The presence of motivation creates enthusiasm and provides direction to students in their learning. Learning motivation occurs when a student wants to learn (Amna Emda, 2015).

In the closing activity of the lesson, the teacher's actions at the end of the lesson are aimed at providing a comprehensive overview of what students have learned and its relevance to their previous experiences. It helps determine the success of the teacher in implementing the lesson (Monica & Hadiwinarto, 2020). Furthermore, Andi Prastowo (2015) explains that the closing activity involves both teachers and students, either individually or in groups, engaging in reflection to evaluate: (a) the entire series of learning activities and the obtained outputs to discover personal benefits and non-personal benefits based on the completed learning outputs, (b) providing feedback on the process and results of learning, (c) carrying out follow-up activities in the form of task rewards, both individual and group tasks, (d) informing the planning of learning activities for the next meeting.

Referring to the process standards for teaching in Permendikbudristek No. 16 of 2022, which includes the implementation of learning in an interactive, inspirational, enjoyable, challenging atmosphere, motivating

students to participate actively, and providing enough space for initiative, creativity, and independence according to the talents, interests, and physical and psychological development of students (Mutamimah et al., 2023). There is conformity with the process standards of implementing learning, which consists of several steps and the use of methods, models, strategies, and learning media in teaching that are in line with the ideal criteria for learning.

In the assessment of learning outcomes, it is aligned with the curriculum model designed, focusing on the development of creative thinking skills based on three main components: knowledge, attitude, and skills for elementary school students (Safaei et al., 2021). Assessment is a form of evaluation conducted by a teacher or educator to measure the level of achievement of students' capacities or abilities in the field of information, including memory or recognition, understanding, application, examination or investigation, synthesis, and evaluation (Hasyim Achmad & Prastowo, 2022). Competency-based education assessments should create opportunities for students to integrate learning and practice, thus resulting in the mastery of professional skills that students will need in their future workplaces. The purpose of assessment is to provide students with opportunities to engage in authentic tasks to develop, use, and expand their knowledge and higher-order thinking skills in the 21st century (Ozan, 2019). Referring to the process standards for assessing learning outcomes in Permendikbudristek No. 16 of 2022, which includes formative and summative assessments, it is evident that teachers report students' learning outcomes in the form of a report that is prepared based on documentation of assessment results such as portfolios, exhibition of works, and exercises given by the teacher.

Meanwhile, supporting factors in the implementation of learning in accordance with the organization of teaching in educational institutions need to be well-structured and carried out with clear guidelines, as well as coordinated well and systematically. Therefore, curriculum management is needed to achieve the desired educational goals. Parties within the educational institution, such as teachers, school committees, and all those involved in curriculum management, play a crucial role in this (Aprilia, 2020). Furthermore, there are obstacles in the implementation, including challenges in curriculum development planning such as: (a) inadequate equipment, as the number of students in the class is large and not proportional to the available facilities, (b) limited sources, (c) Monotonous teaching by teachers causing boredom among students because the teacher's teaching style influences the teaching and learning process; and (d) insufficient funds to support educational programs (Wardani et al., 2016).

From the research results, there are supporting factors that stem from the school principal's leadership, training and workshops related to the implementation of the independent curriculum (Kurikulum Merdeka), good student enthusiasm,

school support in providing learning materials, teacher activities, the ability to use digital media such as computers and smartphones, and of course, the role of parents in their children's education. Meanwhile, the constraints in implementation include new teachers who have not fully understood the components and guidelines for teaching and assessment in the independent curriculum.

CONCLUSIONS AND IMPLICATIONS

Conclusion

The conclusion of this research is that the implementation of Natural Sciences and Social Studies (IPAS) learning in the fourth grade of the Elementary School using the Independent Curriculum (Kurikulum Merdeka) is in accordance with the process standards outlined in Minister of Education and Culture Regulation No. 16 of 2022. Furthermore, in lesson planning, teachers create clear and simple flexible learning documents, including designing the Learning Objectives Flow, learning outcomes, teaching modules, and Lesson Implementation Plans (RPP). Additionally, during implementation, the alignment with the process standards of implementing learning, which involves several steps and the use of methods, models, strategies, and learning media that meet the ideal criteria for learning.

Regarding the assessment of learning outcomes, the teacher reports the results in the form of a report, structured based on the documentation of assessment results such as portfolios, exhibition of works, and exercises given by the teacher. Supporting factors include leadership from the school principal, training and workshops related to the implementation of the independent curriculum, good student enthusiasm, school support in providing learning materials, teacher activities, and the ability to use digital media such as computers and smartphones. The role of parents in their children's education is also crucial.

However, there are challenges in implementation, particularly with new teachers who have not fully grasped the components and guidelines for teaching and assessment in the independent curriculum.

Implications

The following are several implications that can be drawn from research evaluating the implementation of science and science learning in the Independent Elementary School Curriculum:

1. Training and improvement of teacher quality are needed. This research indicates that the majority of fourth-grade teachers still do not fully understand the components and guidelines for teaching and assessment in the independent curriculum. Therefore, there is a need for training and improvement of teacher quality to strengthen their understanding of the independent curriculum and assist them in developing effective teaching strategies.
2. The support of school facilities and infrastructure is essential. In this study, the support of school facilities and infrastructure in providing learning materials is a crucial supporting factor in the implementation of IPAS learning in the Independent Curriculum. Therefore, adequate attention and support from the school are required to facilitate adequate learning facilities and infrastructure.
3. The importance of the role of parents in child education. This research shows that the role of parents in child education is also a supporting factor in the implementation of IPAS learning in the Independent Curriculum. Therefore, there is a need for more intensive campaigns and programs to involve parents in the learning process of their children at school.

Comprehensive Learning Process Evaluation This research focuses on the evaluation model of CIIP by Stufflebeam, which emphasizes the process evaluation. Therefore, it is expected that future research can pay more attention to more comprehensive aspects of evaluation, such as evaluating the results and impacts of learning on students, as well as factors that influence the overall success of the implementation of the independent curriculum.

REFERENCE

- Akmal Rijal, & Putra, M. R. P. (2019). Pengembangan Rencana Pelaksanaan Pembelajaran (Rpp) Matematika Berbasis Model Learning Cycle 7e Untuk Siswa Kelas V Sekolah Dasar. *ELSE (Elementary School Education Journal) : Jurnal Pendidikan Dan Pembelajaran Sekolah Dasar*, 3, 77–92.
- Altunova, N., & Artun, H. (2020). Evaluation of the Science Laboratory Applications Course in a Pre-service Primary School Teacher Curriculum. *Journal of Science Learning*, 3(3), 205–215. <https://doi.org/10.17509/jsl.v3i3.23706>
- Amna Emda. (2015). Motivasi Pembelajaran Perspektif Guru dan Siswa. *Lantanida Journal*, 5(2).
- Anderson, N. (2022). Synthesizing frameworks and tools to develop a plan for evaluating an online data utilization curriculum for teachers. *Evaluation and Program Planning*, 94(May), 102148. <https://doi.org/10.1016/j.evalprogplan.2022.102148>
- Andi Prastowo. (2015). *Menyusun Rencana Pelaksanaan Pembelajaran (RPP) Tematik Terpadu Implementasi Kurikulum 2013 untuk SD/MI*. Prenadamedia Group.
- Aprilia, W. (2020). Organisasi dan Desain Pengembangan Kurikulum. *Islamika*, 2(2), 208–226. <https://doi.org/10.36088/islamika.v2i2.711>
- Aprima, D., & Sari, S. (2022). Analisis Penerapan Pembelajaran Berdiferensiasi Dalam Implementasi Kurikulum Merdeka Pada Pelajaran Matematika SD. *Cendikia : Media Jurnal Ilmiah Pendidikan*, 13(1), 95–101.
- Asrizal, Maharani Zan, A., & Mardian, V. (2022). The Impact of Static Fluid E-Module by Integrating STEM on Learning Outcomes of Students. *Journal of Education Technology*, 6(1), 110–118. <https://dx.doi.org/10.23887/jet.v6i1.4>
- Astuti, D. A., Haryanto, S., & Prihatni, Y. (2018). Evaluasi implementasi kurikulum 2013. *Wiyata Dharma: Jurnal Penelitian Dan Evaluasi Pendidikan*, 6(1), 7. <https://doi.org/10.30738/wd.v6i1.3353>
- Bhakti, Y. B. (2017). Evaluasi Program Model CIPP pada Proses Pembelajaran IPA. *JIPFRI (Jurnal Inovasi Pendidikan Fisika Dan Riset Ilmiah)*, 1(2), 75–82. <https://doi.org/10.30599/jipfri.v1i2.109>
- Budiastuti, P., Soenarto, S., Muchlas, M., & Ramndani, H. W. (2021). Analisis Tujuan Pembelajaran Dengan Kompetensi Dasar Pada Rencana Pelaksanaan Pembelajaran Dasar Listrik Dan Elektronika Di Sekolah Menengah Kejuruan. *Jurnal Edukasi Elektro*, 5(1), 39–48. <https://doi.org/10.21831/jee.v5i1.37776>
- Candra, R., Rahayu, E. S., & Putra, N. M. D. (2020). Development of Science Module SETS Approach to Strengthen Cognitive Learning Outcomes of Elementary School Students. *Journal of Primary Education*, 9(3), 248–257. <https://doi.org/10.15294/jpe.v9i3.37713>
- Daga, A. T. (2022). Penguatan Peran Guru Dalam Implementasi Kebijakan Merdeka

- Belajar Di Sekolah Dasar Agustinus Tanggu Daga Pendidikan Guru Sekolah Dasar STKIP Weetebula Sumba NTT Indonesia. *ELSE (Elementary School Education Journal) Jurnal Pendidikan Dan Pembelajaran Sekolah Dasar*, 6, 1–24.
- Dwi Nurani;Lanny Anggraini. (2022). Buku Saku Serba-Serbi Kurikulum Merdeka Kekhasan Sekolah Dasar. In B. Tim Pusat Kurikulum dan Pembelajaran (Puskurjar) (Ed.), *Serba-Serbi Kurikulum Merdeka Kekhasan Sekolah Dasar E* (pp. 1–51). ditpsd.kemdikbud.go.id. ditpsd.kemdikbud.go.id
- Faradita, M. F. (2017). Pengaruh Model Pembelajaran Kooperatif Tipe Course Review Horay Terhadap Motivasi Belajar Siswa Mata Pelajaran IPA di Sekolah Dasar. *ELSE (Elementary School Education Journal): Jurnal Pendidikan Dan Pembelajaran Sekolah Dasar* , 1(2b), 185–192.
- Fatihatul Kitab. (2012). *Hubungannya Dengan Hasil Belajar Siswa Pada Bidang Studi Aqidah Akhlak Di Mts Salafiyah Oleh : Kementerian Agama Republik Indonesia Institut Agama Islam Negeri (Iain) Syekh Nurjati Cirebon*. Institut Agama Islam Negeri (Iain) Syekh Nurjati Cirebon.
- Fitrah, M., dan L. (2017). *Metodologi Penelitian; Penelitian Kualitatif, Tindakan Kelas dan Studi Kasus*. https://www.google.co.id/books/edition/Metodologi_penelitian_penelitian_kualit_a/UVRtDwAAQBAJ?hl=id&gbpv=1&dq=studi+kasus+dipilih+karena&pg=PA214&printsec=frontcover
- Fitriyah, C. Z., & Wardani, R. P. (2022). Paradigma Kurikulum Merdeka Bagi Guru Sekolah Dasar. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 12(3), 236–243. <https://doi.org/10.24246/j.js.2022.v12.i3.p236-243>
- Hamdi, M. M. (2020). Evaluasi Kurikulum Pendidikan. *Intizam, Jurnal Manajemen Pendidikan Islam*, 4(1), 66–75. <http://ejournal.staida-krempyang.ac.id/index.php/intizam/article/view/248>
- Hasyim Achmad, G., & Prastowo, A. (2022). Authentic Assessment Techniques on Cognitive Aspects in Islamic Religious Education Learning at Elementary School Level. *Jurnal Ilmiah Sekolah Dasar*, 6(1), 75–84. <https://dx.doi.org/10.23887/jisd.v6i1.43470>
- Imrotin, & Sari, I. N. (2022). Kesiapan Guru Bahasa Indonesia Sekolah Menengah Kejuruan (SMK) dalam Menghadapi Program Merdeka Belajar. *Jgi : Jurnal Guru Indonesia*, 2(1), 9–19. <https://doi.org/10.51817/jgi.v2i1.184>
- Katrina Marzetta , Hillary Mason, B. W. (2018). ‘Sometimes they are fun and sometimes they are not’: Concept mapping with english language acquisition (ELA) and gifted/talented (GT) elementary students learning science and sustainability. *Education Sciences*, 8(1). <https://doi.org/10.3390/educsci8010013>
- Kelly, A. V. (2016). Theory and Practice Theory and Practice. *Journal of Pastoral Care & Counseling*, 30(3), 145–145. <http://0-search.ebscohost.com/catalogue/libraries.london.ac.uk/login.aspx?direct=true&db=a9h&AN=9609194503&site=ehost-live>

- Kurniawati, E. W. (2021). Evaluasi Program Pendidikan Perspektif Model CIPP (Context, Input, Process, Product). *Jurnal GHAITSA Islamic Education Jurnal*, Volume 2(1), 24.
- Luma, M., Tola, A., & Hadirman, H. (2020). Evaluasi Implementasi K-13 Berdasarkan Model CIPP di SDN 2 Tabongo Kabupaten Gorontalo. *Jurnal Ilmiah Iqra'*, 14(2), 186. <https://doi.org/10.30984/jii.v14i2.1307>
- Magdalena, I., Maula, N. H., Amelia, S. A., & Ismawati, A. (2020). Evaluasi Penerapan Pembelajaran K13 di Sekolah Dasar Dharmawati Arief Tangerang. *Manazhim*, 2(1), 19–28. <https://doi.org/10.36088/manazhim.v2i1.596>
- Mahardhika, G. P. (2015). Digital game based learning dengan model ADDIE untuk pembelajaran doa sehari-hari. *Teknoin*, 21(2), 115–122. <http://journal.uui.ac.id/index.php/jurnal-teknoin/article/view/3700>
- Mahmudi, I. (2011). CIPP : Suatu Model Evaluasi Pendidikan. At-Ta'Dib. *Jurnal At-Ta'dib*, 6(1), 9–11.
- Makiabadi, H. A., & Abbasiane, H. (2021). Investigating the effect of integrated teaching patterns with traditional teaching methods on students' creativity. *Management and Educational* https://www.jmep.ir/article_140934.html?lang=en
- Maulinda, U. (2022). Pengembangan Modul Ajar Berbasis Kurikulum Merdeka. *Tarbawi*, 5(2), 130–138.
- Mohammad Adnan. (2017). Evaluasi Kurikulum Sebagai Kerangka Acuan Pengembangan Pendidikan Islam. *Al-Idaroh*, 1(2), 108–129. <https://www.ptonline.com/articles/how-to-get-better-mfi-results>
- Monica, S., & Hadiwinarto. (2020). Pengaruh keterampilan membuka dan menutup pembelajaran terhadap keaktifan belajar siswa di sekolah Menengah Kejuruan (Smk) Negeri 1 Lubuklinggau. *Jurnal Administrasi Manajemen Pendidikan*, 3(2), 12–23. <https://jurnal.um-palembang.ac.id/jaeducation/article/view/3054>
- Mubarak, A. A., Aminah, S., Sukamto, S., Suherman, D., & Berlian, U. C. (2021). Landasan Pengembangan Kurikulum Pendidikan di Indonesia. *Jurnal Dirosah Islamiyah*, 3(1), 103–125. <https://doi.org/10.47467/jdi.v3i2.324>
- Muhson, A. (2012). Meningkatkan Profesionalisme Guru: Sebuah Harapan. *Jurnal Ekonomi Dan Pendidikan*, 1(2). <https://doi.org/10.21831/jep.v1i2.665>
- Mutamimah, D. H., Fadhilah, D., & Pratiwi, D. G. (2023). Identifikasi Standar Kurikulum Merdeka Belajar 2022. *Shibghoh: Prosiding Ilmu Kependidikan*.
- Nahar, S., Suhendri, Zailani, & Hardivizon. (2022). Improving Students' Collaboration Thinking Skill under the Implementation of the Quantum Teaching Model. *International Journal of Instruction*, 15(3), 451–464. <https://doi.org/10.29333/iji.2022.15325a>
- Nienke M. Nieveen, J. J. . (2022). Curriculum design. *International Encyclopedia of*

- Nurdyansyah, & Mutala'iah, N. (2015). Pengembangan Bahan Ajar Modul Ilmu Pengetahuan Alambagi Siswa Kelas IV Sekolah Dasar. *Program Studi Pendidikan Guru Madrasa Ibtida'iyah Fakultas Agama Islam Universitas Muhammadiyah Sidoarjo*, 41(20), 1–15.
- Ozan, C. (2019). The effect of authentic assessment on academic achievement and attitude towards educational measurement and opinions of prospective teachers. *International Journal of Evaluation and Research in Education*, 8(2), 299–312. <https://doi.org/10.11591/ijere.v8i2.18564>
- Prastowo, A. (2018). Transformasi Kurikulum Pendidikan Dasar Dan Menengah Di Indonesia (Kurikulum Tingkat Satuan Pendidikan Menuju Kurikulum 2013 Hingga Kurikulum Ganda). *Ilmiah PGMI*, 4(2), 111–125.
- R. Masykur. (2018). *Teori Dan Telaah Pengembangan Kurikulum* (ISBN: 978-).
- Rahmawati, C., Supena, A., Hairun Nisa, J., & Yusuf Ferdiansyah, M. (2021). Penerapan Rencana Pelaksanaan Pembelajaran Anak Berkebutuhan Khusus Di Sekolah Dasar Negeri Meruya Selatan 06 Pagi. *Jurnal Gentala Pendidikan Dasar*, 6(2), 13–31. <https://doi.org/10.22437/gentala.v6i2.13997>
- Ramadhan, W., Rifana, F., Meisya, R., Putro, K. Z., & Frasandy, R. N. (2023). Analisis Penerapan Pembelajaran Berdiferensiasi Pendidikan Pancasila dan Kewarganegaraan (PPKn) dalam Kurikulum Merdeka Sekolah Dasar. *Sekolah Dasar: Kajian Teori Dan Praktik Pendidikan*, 32(1), 1. <https://doi.org/10.17977/um009v32i12023p1-14>
- Ramadhan, W., & Santosa, S. (2023). Analisis Integrasi Nilai-Nilai Keislaman dalam Pembelajaran Ilmu Pendidikan Alam dan Sosial (IPAS) Pada Kurikulum Merdeka di Sekolah Dasar. *El-Ibtidaiy: Journal of Primary Education*, 1, 1–12.
- Safaei, N., Zarei, E., & Samavi, A. (2021). Design and validation of a curriculum pattern based on creative thinking skills for elementary students. *Technology of Education Journal*, 15(3), 579–590. <https://doi.org/10.22061/jte.2019.5241.2191>
- Sherly, Dharma, E., & Sihombing, B. H. (2020). Merdeka Belajar di Era Pendidikan 4.0. *Merdeka Belajar: Kajian Literatur*, 184–187.
- Sugiri, W. A., & Priatmoko, S. (2020). Perspektif Asesmen Autentik Sebagai Alat Evaluasi Dalam Merdeka Belajar. *At-Thullab : Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 4(1), 53. <https://doi.org/10.30736/atl.v4i1.119>
- Supriatna, I., & Lusa, H. (2021). Pengembangan Bahan Ajar Matematika Berbasis Realistic Mathematics Education (RME) untuk Membangun Pemahaman Konsep Article Information. *JGPD : Jurnal Gentala Pendidikan Dasar*, 6(2), 112–138. <http://online-journal.unja.ac.id/index.php/gentala>
- Turmuzi, A. (2023). Peningkatan Kompetensi Guru Dalam Menyusun Perangkat Ajar Kurikulum Merdeka Melalui Supervisi Akademik di SMP Negeri 4 Jerowaru Kabupaten Lombok Timur. *Semesta: Jurnal Ilmu Pendidikan Dan Pengajaran*, 1(1), 24–38.

- Ujang Cegi Barlian, S. S. (2022). Implementasi Kurikulum Merdeka Dalam Meningkatkan Mutu Pendidikan. *Journal of Educational and Language Research, 10*(1), 1–52. <https://doi.org/10.21608/pshj.2022.250026>
- Wardani, N. W., Imron, A., & Maysaroh. (2016). Perencanaan Pengembangan Kurikulum. *Jurnal Pendidikan, 1*(2013), 910–916.
- Wartoyo, F. X. (2022). Menakar Korelatifitas Merdeka Belajar Dengan Sistem Pendidikan Nasional Undang- Undang Nomor 20 Tahun 2003 dan Pancasila. *Jurnal Kajian Dan Penelitian Hukum, 4*(2), 140–153.
- Zama, C. Z., & Mashiya, N. (2022). Early Childhood Care and Education teachers' experiences of integrating the activities of the national curriculum framework into themes. *South African Journal of Childhood Education, 12*(1), 1–10. <https://doi.org/10.4102/sajce.v12i1.1089>