Implementation Curriculum Merdeka Belajar Learn Science and Social (IPAS) Learning In Elementary School: Perspective Teacher

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ABSTRACT

Effective and relevant learning plays a key role in improving the quality of education in this modern era. One concept that is currently developing is "Freedom to Learn", which emphasizes individual empowerment in the learning process. The science and technology learning approach (Individual, Choice, Active and Systematic) is one of the strategies used in implementing the Independent Learning concept. The purpose of this article is to present regarding the implementation of science and social learning in the Merdeka Belajar context. This descriptive involves searching and analyzing related articles, journals and publications that discuss the concept of Merdeka Belajar and the science and science learning approach. The results of the literature review show that science learning applied in the Merdeka Belajar context provides a number of benefits for students. This approach gives individuals the freedom to choose materials, methods and learning tempo that suit their needs and interests. In this context, students become the main agents in their own learning process, which encourages intrinsic motivation and personal responsibility. Apart from that, science learning also encourages active involvement of students in the learning process. They are encouraged to be active participants in discussion, collaboration, and problem solving, which helps develop social skills, creativity, and critical thinking. This approach also involves self-evaluation, in which learners independently reflect on their progress and achievements, and make decisions that can improve their learning outcomes. However, the implementation of science and science learning in the Merdeka Belajar context also faces a number of challenges. Some of these challenges include the need to provide adequate support and training to educators to implement this approach effectively, the development of flexible curricula, and the development of infrastructure that supports learner-centered learning.

Keywords: Independent Learning, Effective and Relevant Learning, Science and Social, Active Involvement of Students

A. INTRODUCTION

Education plays a very important role in creating a developed and developing society. In this modern era, education is no longer limited to the transfer of knowledge from teachers to students. Instead, education develops into a dynamic process that emphasizes individual empowerment and independence in learning. One concept that is developing rapidly is "Freedom to Learn".

The concept of Independent Learning places individuals as the main agents in the independent learning process. This concept emphasizes individual freedom in choosing, organizing and managing their own learning process. Through Merdeka Belajar, students are empowered to take control of their education, including choosing learning materials, methods used, and pacing that suits their needs and interests (Fahrurrozi et al., 2022).

Improving the 2013 curriculum to an independent curriculum is actually a fundamental thing for achieving national education goals (Inayati, 2022). In the Independent Learning Curriculum, students have the opportunity to develop their unique potential and pursue their goals through selecting subjects, learning methods, and determining the appropriate learning tempo. This will provide greater space for students to be active in their learning and encourage intrinsic motivation and a sense of personal responsibility.

However, changes aimed at improving this often result in negative thoughts for teaching staff because this can add to their burden. The previous curriculum could not necessarily be understood and implemented well, then suddenly there was a change in the curriculum which required them to accept, understand and implement it into their learning system. The impact of changes that continue to develop requires improvements to various existing components in schools, including increasing teacher competence in mastering the curriculum (Ningrum, 2021). One of the challenges faced by teaching staff in curriculum changes is the need for an in-depth understanding of the basic concepts and principles of the Merdeka Belajar curriculum. Educators must carefully study the structure, objectives and learning methods promoted by this new curriculum. This process of learning and adapting requires extra time and effort which can cause stress and discomfort for teaching staff. Therefore, various training for teaching staff is needed every time a new curriculum change is made.

Unlike the 2013 curriculum which adopted a theme approach, the books in the Merdeka Belajar Curriculum can be accessed via the Merdeka Mengajar platform

application (Budiwati et al., 2023). The Merdeka Mengajar Platform application provides various features that can be used by educators to support the implementation of the Merdeka Curriculum. These features can help educators carry out learning in accordance with the Merdeka Belajar concept. This application allows easy access to the books and learning materials required in the Merdeka Curriculum. In this way, educators can more effectively organize and prepare learning that is tailored to the needs and interests of students.

Through the Merdeka Mengajar Platform application, educators can also take advantage of other available features. For example, online discussion and collaboration features enable educators to encourage students' active participation in learning. The evaluation and monitoring feature of student progress can also help educators track and evaluate student learning progress independently.

There are many changes that have occurred in the implementation of this latest curriculum, one of which is the merging of subject books, namely Science and Social Sciences which are combined and become the Science AS book. According to Sujana, in the context of teaching science in elementary schools (SD), it is important to provide knowledge by teaching children how to think scientifically and developing their understanding of the world around them. answer various challenges faced by humans in everyday life (Handayani et al., 2019). Books that are used as teaching materials in the student learning process must be designed according to the child's growth and development so that the information to be conveyed can be channeled well to students. With the aim of increasing students' understanding of science, this effort is expected to result in an increase in students' scientific literacy.

The Merdeka Curriculum is a program that is expected to improve learning, which offers 3 characteristics including project-based learning, *soft skills* and character development in accordance with the Pancasila student profile, learning on essential material and a more flexible curriculum structure (Jojor &; Sihotang, 2022). Through science learning, students are given the freedom to become active and responsible individuals in their learning process and are directly involved in tasks that are real and relevant to everyday life by supporting the development of dedicated student character through the freedom given to students to make their own choices. how their learning system will be able to hone their independence, responsibility and integrity. Apart from that, the Merdeka curriculum also accommodates students to further explore learning

through team development or group collaboration which can strengthen the values contained in Pancasila such as mutual cooperation, tolerance, justice and togetherness.

This research perpective teacher implementation Curriculum Merdeka Belajar in Science and Social (IPAS) Learning in Elementary School. The main research question was: “How perpective teacher Implementation Curriculum Merdeka Belajar Learn Science Social in elementary school? This investigation attempted to respond to research problems as follows:

1. How Implementation of Science and social Learning in the Context of Independent Learning ?
2. What do Individual Empowerment in science and social learning?
3. How Benefits of learning science and social for students?
4. Why Challenges in implementing science and social learning in the context of independent learning?
5. How the relevance of science and social learning to the Pancasila student profile?

B. RESEARCH METHODS

In this article, qualitative research methods are used to explore the implementation of science and science learning in the context of Merdeka Belajar. Qualitative research methods are an approach used to understand phenomena in depth, with a focus on interpreting the meaning and social context involved. In the context of the qualitative research in this article, a literature search and analysis was carried out to obtain a comprehensive understanding of the concept of Merdeka Belajar and the science and science learning approach (Anggraini, P.P., Dixiyei, A., and Marhaendra, G., 2020). Relevant articles, journals and related publications were identified and systematically reviewed. Next, the data found is analyzed using a qualitative approach, such as thematic analysis, to identify patterns, themes and relationships that emerge from the literature that has been analyzed. Qualitative research methods provide freedom for researchers to explore the complexity and context involved in implementing science and social learning in the Merdeka Belajar context. This approach allows researchers to gain a deeper understanding of the benefits, challenges, and other important aspects related to science learning. In this article, qualitative research methods are used to gain in-depth insight into the experiences of students, educators, and the implementation of the science and science learning approach in the Merdeka Belajar context.

C. RESULTS AND DISCUSSION

1. How Implementation of Science and Social Learning in the Context of Independent Learning ?

Based on the results of interviews with the homeroom teacher of class V at SDN Kebon Baru 09 Pagi and the science teacher, it can be confirmed that the implementation of the independent learning curriculum at the school is going well. The implementation process is carried out in stages and involves information and outreach delivered through tiered training. This gives teachers the opportunity to manage teaching materials in areas of study that they are effective at. Apart from that, the grouping of study areas has previously been experienced and studied by teachers in the 2016 KTSP curriculum (Oktaviani et al., 2023).

With a gradual approach and training provided to teachers, the implementation of the independent learning curriculum in schools can run well. Teachers have sufficient time to understand and manage teaching materials according to their field of study. Previous experience in the 2016 KTSP curriculum also provides advantages in grouping study areas.

In this case, the homeroom teacher of class IV at SDN Kebon Baru 09 Pagi and the instructor of the science and sciences field of study gave testimony that the implementation of the independent learning curriculum had been successful at the school. An organized implementation process and the training provided to teachers played an important role in this success.

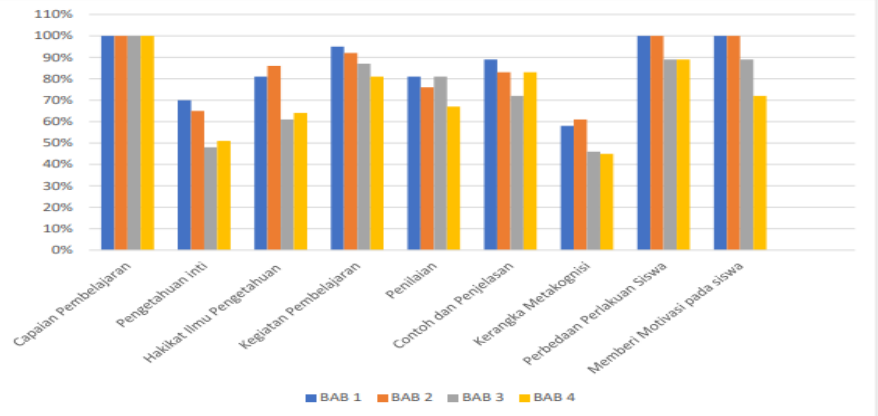
The research results show that the implementation of science and science learning in the context of Merdeka Belajar has a positive impact on students. The science and science learning approach gives individuals the freedom to choose materials, methods and learning tempo that suit their needs and interests. Learners become the primary agents in their own learning process, which encourages intrinsic motivation and personal responsibility.

2. What do Individual Empowerment in science and social learning?

Science learning provides opportunities for students to take an active role in the learning process. They are encouraged to be active participants in discussion, collaboration, and problem solving. This helps develop students' social skills, creativity and critical thinking. Learners also engage in self-evaluation, where they independently

reflect on their progress and achievements, and make decisions that can improve their learning outcomes.

In research conducted by Nurul Saadah in her journal entitled "Analysis of Pedagogical Content Knowledge of Science Teacher Books in Independent Curriculum Elementary School Science Content", the focus of the analysis was limited to class IV science AS books in science content, especially in CHAPTER 1 to CHAPTER 4. Evaluation PCK components are based on indicators which are divided into two components, namely Content Knowledge (CK) and Pedagogical Knowledge (PK). The Content Knowledge (CK) component includes learning achievements, core knowledge, and the nature of knowledge. Meanwhile, the Pedagogical Knowledge (PK) component includes learning activities, assessment, examples and explanations, metacognitive framework, different treatment of students, and providing motivation to students.



Gambar 1: Persentase Kemunculan PCK pada Setiap BAB

Tabel 2. Hasil analisis *Pedagogical Content Knowledge* (PCK) pada buku IPAS

Komponen PCK	**Sub Komponen**	**Persentase**	**Kategori**
Content Knowledge	Capaian Pembelajaran	100%	Sangat Tercapai
	Pengetahuan inti	58%	Cukup Tercapai
	Hakikat Ilmu Pengetahuan	73%	Tercapai
Pedagogical Knowledge	KegiatanPembelajaran	89%	SangatTercapai
	Penilaian	76%	Tercapai
	Contoh dan Penjelasan	82%	Sangat Tercapai
	Kerangka Metakognisi	53%	Sangat Tercapai
	Perbedaan Perlakuan Siswa	95%	Sangat Tercapai
	MemberiMotivasipadasiswa	90%	SangatTercapai
Total		84%	SangatTercapai

The results of the analysis of teachers' books on science content in science books show variations in the percentage of appearance of Pedagogical Content Knowledge (PCK) components. Based on the data listed in Table 2, it can be concluded that the percentage of occurrence of each subcomponent is not uniform. The subcomponent with the highest percentage is learning achievement, reaching 100% in the highly achieved category. This shows

that the science teacher's book comprehensively displays learning achievements in the science field, gives appropriate weighting and clear explanations (Agustina et al., 2022).

The percentage of appearance of the core knowledge subcomponent was recorded at 58% in the moderately achieved category. This indicates that the science content contained in the class IV science teacher's book is not optimal. The low percentage of the core knowledge subcomponent is caused by the absence of several indicators in the book. Therefore, teachers need to understand the initial knowledge that students must have so that they can be guided in studying further, more complex material.

3. How Benefits of learning science and social for students?

The implementation of science and science learning in the Independent Learning context provides a number of benefits for students. Students have the freedom to choose learning materials that suit their interests and needs. They can also set the learning methods that are most effective for them, thereby increasing learning engagement and motivation. In addition, science learning encourages the development of social skills, creativity and critical thinking that are important in students' daily lives and future.

The use of learning media follows the latest developments in the world of education in the Industrial Revolution 4.0 era. This accelerates progress in new areas of literacy which is an important aspect of the learning process and can be implemented immediately. In the blended learning approach, character education can still be emphasized. This means that students are not only trained in critical thinking or problem solving skills, but also in the ability to create and innovate. They are also taught to communicate and work together well, while still developing positive character. This means that this approach not only produces students who have good academic abilities, but also students who are honest, religious, hardworking, responsible, fair, disciplined, tolerant, and have other character values (Robby et al., 2022).

4. Why Challenges in implementing science and social learning in the context of independent learning?

Although science and science learning has significant benefits, its implementation in the Merdeka Belajar context also faces a number of challenges. These challenges include the need to provide adequate support and training to educators to be able to implement this approach effectively. They need to understand the concept of Merdeka Belajar and science learning strategies in order to implement them effectively. Adequate support and training is needed to increase the competence of educators in adopting this approach (Goestjahjanti et al., 2022). Apart from that, there is a need for flexible curriculum development. In the implementation of science and science learning in the Merdeka Belajar context, students are given the freedom to choose materials, methods and learning tempo that suit their personal characteristics. In this case, changes are needed in curriculum development that pay attention to aspects of freedom and flexibility so that students can organize their learning according to individual preferences

and needs and development of infrastructure that supports student-centered learning (Nadhiroh &; Anshori, 2023). In the context of implementing science and science learning in Merdeka Belajar, adequate infrastructure is needed, such as internet access, technological devices and adequate learning facilities. This aims to facilitate learning using technology and enable students to easily access learning resources.

5. How the relevance of science and social learning to the Pancasila student profile?

Science learning also has relevance to the Pancasila student profile. Through science learning, students are empowered as individuals who have responsibility, integrity and Pancasila values, such as mutual cooperation, tolerance, justice and togetherness. Science learning provides opportunities for students to develop character and soft skills that suit the Pancasila student profile (Rahayu &; Fitriza, 2021).

Science learning provides each individual with the freedom to choose learning materials, methods and tempo according to their characteristics and needs. This is in line with the principle of freedom in Pancasila which respects individual rights to make their own choices. Apart from that, the IPAS approach also encourages active involvement of students in the learning process. They are encouraged to actively engage in discussion, collaboration, and problem solving, which contributes to the development of social skills, creativity, and critical thinking. This approach is in line with the principles of activeness and creativity in Pancasila (Efendi &; Suastra, 2023). Changes in science-based curriculum development and learning in schools have important implications that need to be considered (Basri et al., 2023).

First, curriculum design needs to change. The Merdeka Belajar curriculum emphasizes students' flexibility and freedom in choosing learning materials, methods and tempo. Therefore, it is necessary to develop a curriculum that can offer a variety of learning materials and approaches that can be adapted to the needs and interests of students (Amirudin &; Sugiharto, 2022).

Second, the role of teachers also needs to change. Teachers not only act as providers of information, but also as learning facilitators who support students in understanding and developing their abilities. Teachers need to have the ability to manage learning that focuses on students and provide guidance that suits their individual characteristics.

Third, the availability of adequate infrastructure and learning resources is important. Science-based learning requires internet access, technological devices and adequate learning facilities so that students can easily access learning resources and utilize them effectively.

Fourth, the importance of assessment that is in accordance with the science and science learning approach. Assessment is not only related to giving academic grades, but also involves formative assessments that provide feedback to students to develop their abilities.

The results of this research provide important implications for curriculum development and learning in schools. Efforts are needed to support educators in implementing science learning effectively through adequate training and support. Apart from that, it is necessary to adjust the curriculum to be more flexible to facilitate the implementation of science and social learning. Improved infrastructure and supporting facilities are also needed to support student-centered learning.

D. CONCLUSION

From the research conducted, several conclusions can be drawn as follows:

Education plays an important role in creating a developed and developing society. Modern education emphasizes individual empowerment and independence in learning, with the concept of "Freedom to Learn" as one of the approaches that is currently developing. The Merdeka Belajar curriculum provides opportunities for students to develop their unique potential and pursue their own interests in learning. Students have the freedom to choose materials, methods and learning tempo according to their needs and interests. Implementation of the Independent Learning Curriculum requires changes in the education system, including increasing teacher competence in understanding and implementing this new curriculum. Continuously developing changes can cause stress and discomfort for teaching staff, so training is needed to support these changes.

The Merdeka Mengajar Platform application can help educators access the books and learning materials needed in the Merdeka Curriculum. Features such as online discussion and collaboration, as well as evaluating and monitoring student progress, can also support the implementation of the Independent Learning Curriculum.

Implementation of science and social sciences (Natural and Social Sciences) learning in the context of the Independent Learning Curriculum has been carried out in several elementary schools. The science and science learning approach gives students the freedom to become active and responsible individuals in the learning process, as well as being involved in real tasks that are relevant to everyday life. Science and science learning in the Merdeka Belajar Curriculum empowers individuals through active participation in discussions, collaboration, and problem solving. This helps develop students' social skills, creativity and critical thinking, as well as giving them personal responsibility in self-evaluation and decision making. The implementation of the Independent Learning Curriculum in science and science learning in elementary schools has a positive impact on students. Students become more active and involved in the learning process, with freedom in choosing learning materials and methods.

E. SUGGESTION

Based on research articles regarding the implementation of Merdeka Belajar in science and social learning, here are several suggestions that can be taken:

1. Teacher Training and Development: In implementing Merdeka Belajar, it is necessary to provide adequate training and development for teachers. Teachers need to understand the concepts, principles and learning methods related to Merdeka Belajar. This training may include an understanding of the structure and objectives of the Merdeka Curriculum, project-based learning, soft skills and character development, as well as appropriate assessments. With the right training, teachers can be more prepared and confident in implementing Merdeka Belajar in science and science learning.
2. Project Based Learning: In Merdeka Belajar, project based learning is one of the important approaches. Learning projects can be designed to involve students in exploring and understanding science concepts in more depth. Learners can work in groups or independently to complete projects that are relevant to everyday life contexts. Teachers need to provide sufficient guidance and guidance in project-based learning and ensure that there is appropriate assessment of the project results achieved.
3. Student Involvement: Merdeka Belajar encourages active involvement of students in the learning process. Teachers need to create an environment that supports student involvement, such as by encouraging discussion, collaboration and problem solving. Students also need to be given the freedom to choose learning materials, methods used, and learning tempo that suit their needs and interests. By providing space for student involvement, they will feel more motivated and responsible for science learning.
4. Use of Technology: Technology can be an effective tool in supporting the implementation of Merdeka Belajar in science and science learning. Teachers can utilize online applications and platforms, such as the Merdeka Mengajar application, to access learning materials, share resources, and facilitate discussion and collaboration between students. Technology can also be used to monitor student learning progress and provide appropriate feedback.
5. Evaluation and Monitoring: In Merdeka Belajar, evaluating and monitoring student progress is also important. Teachers need to design assessments that are appropriate to the science learning objectives and provide constructive feedback to students. Evaluation can be carried out formatively and summatively, taking into account various aspects of students' learning progress, both in terms of knowledge and skills.

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