

TEACHERS' PERCEPTIONS OF THE IMPLEMENTATION OF THE INDEPENDENT CURRICULUM IN SCIENCE LEARNING AT SD NEGERI 1 MEDAN, 2023/2024

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Abstract

This research examines teachers' perceptions of the implementation of the Merdeka Curriculum in science learning at the elementary school level in Indonesia. Prior to 2021, science education in the Indonesian curriculum was divided into distinct subjects: Physics, Chemistry, and Biology. The 2013 Curriculum introduced a scientific approach that emphasized active learning, encouraging students to engage in observation, experimentation, and problem-solving. The Merdeka Curriculum continues this emphasis, focusing on student-centered learning with teachers acting as facilitators. It integrates the Pancasila Student Profile and P5 (Strengthening Character Education) to foster creativity, emotional intelligence, and spirituality in learning. The study revealed that teachers generally have positive perceptions of the Merdeka Curriculum, viewing it as a tool to reduce their workload while enhancing students' active participation in learning. However, teachers face challenges, including the need to develop innovative learning models and strategies tailored to students' needs and aligning them with the principles of the Merdeka Curriculum. Observations and interviews were conducted with elementary school teachers and students to collect data, highlighting both the benefits and obstacles of implementing the curriculum. Findings indicate that while the Merdeka Curriculum promotes flexibility and creativity in teaching, its success depends on teachers' readiness, sufficient educational facilities, and effective adaptation strategies. The study underscores the importance of teacher preparation and support in developing interactive, student-focused learning environments. By addressing these challenges, the Merdeka Curriculum can significantly contribute to enhancing science education in Indonesia, fostering critical thinking, creativity, and a deeper understanding of natural and social sciences among students..

Keywords

Merdeka Curriculum; Active Learning; Teacher as Facilitator

Introduction

Science according to the curriculum before 2013, the curriculum in Indonesia divided learning Natural Sciences (IPA) into three main subjects, namely Physics, Chemistry and Biology. Each subject is taught separately with the aim of understanding basic concepts and principles in science. At the elementary school (SD) level, science learning focuses on introducing basic concepts in science such as the properties of objects, motion, energy and ecosystems. Natural Sciences (IPA) according to the 2013 Curriculum in Indonesia prioritizes a scientific approach and active learning. Thus, science learning in the 2013 Curriculum encourages students to be active in the learning process, involving them in observation, experimentation and problem solving. The term "perception" is often used in everyday life to describe the process by which individuals or society give meaning or significance to information, events, objects and other things originating from the environment around them. Perception is a process in which a person organizes the stimulus received and provides an interpretation of it, so that the individual can realize and understand the information received. This can produce two types of thinking, namely positive and negative thinking. In the research "Teachers' Perceptions of the Implementation of the Merdeka Curriculum in Science Learning at SD Negeri 1 Medan", teachers at the school had positive perceptions of the Merdeka Curriculum. They feel that this curriculum reduces the teacher's workload in pursuing learning material.

Apart from that, the Independent Curriculum also places a focus on students' active role in learning, with teachers acting as facilitators. However, the implementation of the Independent Curriculum also has an impact on teachers. Teachers are required to be ready for teaching and learning activities and must develop learning models, methods and strategies that suit students' learning needs. This involves linking the student profile of Pancasila (basic Indonesian values) and P5 (strengthening character education, cultivating emotional intelligence, fostering creativity, developing literacy, and strengthening spiritual intelligence) in learning.

Based on the situation analysis above, there are several relevant studies that also discuss the same problem. The first research was entitled "Teachers' Perceptions Regarding the Implementation of the Independent Curriculum in Elementary Schools in Natural Science Subjects". Elementary school teachers at SD Almadany in the city of Gresik have a good perception regarding the independent curriculum in science and science subjects. This is very good because having a good perception will enable teachers to be more active, creative and innovative in developing learning and learning media in the independent curriculum. The teachers at Almadany Elementary School are also considered to be ready to carry out these science learning activities, judging from the planning process and the results of interviews that have been carried out, the availability of learning facilities and facilities at Almadany Elementary School are sufficient and adequate.

Apart from that, the independent curriculum implemented at this school helps students to be freer and more flexible in expressing their interests and activities. The next research which is also relevant is about teachers' perceptions of the independent curriculum in science learning in elementary schools with the title "Primary School Teachers' Perceptions of Science Subjects in the Independent Curriculum". Elementary school teachers' perceptions and views on Natural and Social Sciences (IPAS) subjects in the Independent Curriculum are very important in determining the success of implementing quality science and technology learning. The concept of science as understood by teachers is science as a combination of science and social science

material which is characterized by process skills and understanding of science in the form of natural and social knowledge. IPAS is also understood with the aim of increasing insight into the surrounding environment and developing students' talents. From the two studies mentioned, it can be concluded that in general teachers have a positive perception of the Independent Curriculum in science learning in elementary schools. They see that this curriculum can reduce teachers' workload in pursuing learning material and allows them to act as facilitators who support students' active involvement in learning. However, teachers are also faced with demands to develop learning models, methods and strategies that suit students' learning needs, and link them to the Pancasila and P5 student profiles.

This shows that teachers need to adapt to a more flexible approach in teaching science in accordance with the principles of the Independent Curriculum. Through the implementation of this research, it is hoped that teachers can have a deep understanding of the goals, principles and implementation of the Independent Curriculum in science learning. With good understanding, teachers can maximize the application of this curriculum and take full advantage of its flexible, student-focused learning approach. Hopefully teachers' perceptions of the Merdeka Curriculum in science learning will become more positive.

Methods

This research uses a qualitative method, which aims to understand the phenomenon in depth through collecting descriptive data. This method was chosen because it allows researchers to explore the views, perceptions and experiences of research subjects directly. Data collection was carried out using in-depth interview techniques and direct observation at the research location. This technique helps researchers obtain comprehensive data about the implementation of the Independent Curriculum in science learning at SD Negeri 1 Medan.

Interviews were conducted with five science teachers who were the main respondents in this research. These teachers were selected based on their experience in teaching science and their direct involvement in implementing the Merdeka Curriculum. The interviews were designed to gain information about their views on the Merdeka Curriculum, the challenges they faced, and the strategies used in science learning. The interview process is semi-structured, allowing researchers to explore more deeply the answers given by respondents.

Observations are carried out during the learning process in class. Through this observation, researchers can observe directly how teachers implement learning strategies based on the Independent Curriculum. This observation includes interactions between teachers and students, the use of learning media, and the methods applied in science learning. Data obtained from observations complement the results of interviews and provide a richer picture of real conditions in the field.

Data analysis was carried out systematically through three main stages. The first stage is data reduction, where researchers focus, simplify, and organize relevant data to facilitate further analysis. Data that is not relevant or does not support the research objectives is eliminated at this stage. The second stage is data presentation, where the reduced information is arranged in a structured format, such as tables, diagrams, or descriptive narratives. The final

stage is drawing conclusions, where the researcher interprets based on the data that has been presented and formulates the main findings of the research.

This research was carried out during the odd semester of the 2023/2024 academic year. Apart from interviews and observations, researchers also recorded various supporting and inhibiting factors in implementing the Independent Curriculum at the school. Thus, this research method is designed to provide an in-depth understanding of the dynamics of science learning under the Merdeka Curriculum, as well as provide relevant recommendations for future curriculum development.

Discussion

Based on responses from several teachers, the Independent Learning Curriculum (KMB) is an innovation in the education system in Indonesia that provides greater flexibility and independence for schools and teachers in designing learning. KMB focuses on developing students' competencies holistically, including academic, soft skills and character aspects, through student-centered learning methods such as project-based learning and thematic approaches. Teachers are also supported to carry out continuous formative assessments and provide constructive feedback to support student progress. In addition, KMB encourages collaboration between teachers, parents and the community in the educational process.

However, there are several main challenges in implementing science and science learning using the independent curriculum in elementary schools, namely: First, limited facilities, infrastructure and teaching materials that support experimental and project-based learning. Many schools still lack adequate practical equipment and materials, making it difficult to implement learning that is in accordance with the principles of the Independent Learning Curriculum (KMB) effectively. Second, there is a lack of training and mentoring for teachers, so they feel less confident and have difficulty integrating various learning methods in accordance with the KMB principles. Third, parental and community involvement is still minimal, thus hampering the creation of a supportive and collaborative learning environment. Therefore, comprehensive efforts are needed to overcome these challenges so that science and science learning using the independent curriculum can run optimally at the elementary school level.

As a teacher, overcoming the challenges in implementing the Independent Learning Curriculum (KMB) in science and science learning in elementary schools can be done with various strategies. First, teachers can optimize the use of available resources, such as using mobile phone technology to search for additional material, using natural materials or local resources as a substitute for practical tools, as well as designing learning that is more flexible and easily accessible to students by utilizing simple technology. Second, teachers can improve their abilities through training, workshops, and forming learning communities with colleagues to share experiences and strategies. Third, teachers can apply a learning differentiation approach to adapt the curriculum to individual student needs. Apart from that, teachers can also increase the involvement of parents and the community in supporting learning. By optimizing resources, increasing teacher capacity, and involving stakeholders, it is hoped that teachers can

overcome the challenges in implementing KMB in science and science learning in elementary schools.

The application of KMB (Free Learning Curriculum) in science and science learning in elementary schools has several positive impacts. First, learning becomes more student-centered, thereby encouraging them to be more active, independent and responsible in the learning process. Second, science learning becomes more integrated with other subjects, making science concepts learned in a real and meaningful context for students. Third, the assessment of science and science learning becomes more holistic, not only measuring aspects of knowledge but also scientific skills and attitudes. Fourth, the implementation of KMB encourages teachers to be more innovative and creative in designing science and science learning, so that it can increase student interest and enthusiasm. Fifth, science learning becomes more contextual and connected to students' real lives, making it easier for them to understand science concepts.

Potential negative impact of implementing the Independent Learning Curriculum (KMB) in science learning in elementary schools. First, there is the possibility of a gap in understanding the material between students due to a more independent and exploratory learning approach. Second, there is an additional burden on teachers in designing learning that is diverse and tailored to students' individual needs. Third, the complexity of evaluating student progress due to more project-based assessment. Fourth, the potential for lack of mastery of basic science skills by students due to excessive focus on exploration and projects. In addition, changing the role of teacher to facilitator can also create adjustment challenges for some teachers. Careful teacher supervision and assistance is required, especially when students are carrying out experimental or observational activities, to ensure student safety and understanding.

The teacher's hope for implementing the Independent Learning Curriculum (KMB) in science and science learning in elementary schools is to create a learning environment that is more inclusive, creative and relevant for students. Teachers hope that KMB can trigger students' active involvement, develop critical thinking skills and creativity, and foster their interest in science. In addition, teachers want to have space to structure learning according to student needs and strengthen collaboration between teachers, students, parents and the community. Another hope is the availability of adequate facilities and infrastructure to support the implementation of KMB, such as laboratories, practical equipment and quality learning media. The realization of quality science and science learning with KMB requires synergy and joint commitment from various parties.

The teacher suggested that to increase the effectiveness of implementing the Independent Learning Curriculum (KMB) in science and science learning in elementary schools, several efforts are needed, including: 1) Increasing teacher capacity and competence in designing student-centered learning through intensive training and professional development; 2) Providing diverse and flexible learning resources as well as adequate infrastructure support to facilitate more interactive and exploratory learning activities; and 3) Close collaboration between the school, parents and community to create a learning

environment that is conducive to implementing KMB. With synergy and joint commitment from various parties, quality science and science learning with KMB can be realized.

Conclusion

The results of this research show that teachers in elementary schools provide a positive response to the presence of Natural Sciences (Science) subjects contained in the Merdeka Curriculum. The Merdeka Curriculum is considered to have a positive impact because it can reduce the burden on teachers in pursuing material, so that they have more lots of time to explore various learning models and methods that are interesting to students. Research findings also show that teachers are ready to carry out science learning in elementary schools, as seen from the planning, implementation and assessment that have been well prepared.

The Independent Learning Curriculum (KMB) is an innovation in Indonesian education that provides greater flexibility and independence for schools and teachers. KMB focuses on developing students' holistic competencies through student-centered learning, such as project-based learning and thematic approaches. However, there are challenges in implementing it in elementary schools, such as limited facilities, infrastructure and teaching materials, as well as a lack of training for teachers. To overcome this challenge, teachers can optimize existing resources, improve abilities through training, and involve parents and the community. The application of KMB in science and science learning has positive impacts such as encouraging students to be more active and independent, as well as more holistic and contextual learning. However, there are potential negative impacts such as gaps in understanding of the material and additional burden on teachers. To increase the effectiveness of KMB, it is necessary to increase teacher capacity, provide adequate learning resources, and close collaboration between schools, parents and communities.

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