
RESEARCH ARTICLE

Student-Centered Learning Based on the Principles of Ki Hajar Dewantara in the Implementation of the Merdeka Curriculum: A Case Study of Elementary Schools in Indonesia

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ABSTRACT

Student-centered learning through the Merdeka Curriculum is a breakthrough in education in Indonesia by integrating the values of Ki Hajar Dewantara. The challenge of implementing this integration is, of course, that it is necessary to formulate solutions for the implementation that has been taking place so far in order to ensure that education creates citizens who are independent, have integrity and are able to face future challenges. Therefore, this research aims to describe the application of the Merdeka curriculum to science and science learning based on the principles contained in the thoughts of Ki Hajar Dewantara, describing the obstacles and challenges faced during student-centered learning activities. This study is a qualitative research. The subjects of this research consist of teachers and school principals at the elementary education level. The data collection techniques used include interviews and observations. Research findings data was analyzed interactively and described to provide an overview of actual field events. The research results show that student-centered learning in science and science learning has adopted Ki Hajar Dewantara's principles. Besides that, the principal's statement is also very positive and committed to making student-centered learning a success by implementing these principles. However, its implementation cannot be separated from the various challenges faced. Therefore, it is hoped that the application of Ki Hajar Dewantara's principles in student-centered learning can have a positive impact on the development of student character and student participation in learning activities and can be used as a learning model that is still relevant to the implementation of the *Kurikulum Merdeka*.

KEYWORDS

Kurikulum Merdeka, Ki Hajar Dewantara, Learning, Elementary School

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1. Introduction

The Merdeka curriculum is one of the programs that creates a happy learning atmosphere in school, a happy atmosphere for students and teachers. The learning background for the launch of the independent curriculum program is the many complaints from parents regarding the national education system that has been in effect so far, including the minimum completeness scores that students must achieve, which are different in each subject. (Rahmadayanti & Hartoyo, 2022; Sugih et al., 2023). The independent curriculum is a form of policy adjustment to restore the essence of assessment, which is increasingly being forgotten. Conceptually, the independent curriculum is to return the national education system to the essence of the law to give schools the freedom to interpret the basic competencies of the curriculum for their assessment (Langan et al., 2019; Yasmansyah & Sesmiarni, 2022). An independent curriculum is also termed freedom of thought, where the essence of this freedom of thought must be in the teacher first. Without it happening to the teacher, it cannot possibly happen to the students (Yasmansyah & Sesmiarni, 2022; Vhalery et al., 2022). So, through an independent curriculum, we can encourage students to learn and develop themselves, form a

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caring attitude towards the environment in which students learn, encourage students' self-confidence and skills and easily adapt to the community environment (Nilholm et al., 2021; Anggraini et al., 2022).

The implementation of the independent curriculum itself provides students with the opportunity to be as free and comfortable as possible. Every individual must implement a good education system in accordance with the concept of an independent curriculum into new ideas and innovations with the hope that education in Indonesia will be more successful and future generations will be able to lead themselves and society well (Oke & Fernandes, 2020; Hasanah et al., 2022). This idea makes all educators and students, especially students in elementary school, learn to determine their own desires in terms of learning. Independent Curriculum Education is a response to the needs of the education system in the Industrial Revolution 4.0 era. In the era of the Industrial Revolution 4.0, the main need to be achieved in the education system is mastery of new literacy (Jufriadi et al., 2022; Valtonen et al., 2021). The essence of an independent curriculum is freedom in thinking, both individually and in groups, so that it can produce students who are critical, creative, collaborative, innovative and participative (Jufriadi et al., 2022; Gravett et al., 2021). With an independent curriculum, student involvement in learning will increase. Of course, the independent curriculum aims to ensure that teachers, students and parents can have a happy atmosphere when learning. This is in line with the constructivist paradigm. The concept of constructive learning emphasizes the process and freedom to explore knowledge and efforts to construct experiences; in other words, another concept is that this concept provides activeness for students to learn to find their own competencies, knowledge or technology and other things needed to develop themselves (Asrial et al., 2022; Sihombing et al., 2021; Triyatno & Fauziati, 2022).

One of the subjects or learning themes in elementary school is science. This lesson or theme is considered to be difficult by the majority of class IV students at SDN Sawahan II Surakarta. With the independent curriculum program, it is hoped that science and science lessons, in particular, will become easier for students because of various innovations from teachers who implement these independent curriculum programs. It is known that every area of learning development in the realm of education must have clear direction and goals. Placing clear objectives in each area of learning development in education, including in the development of science and science learning, is a necessity because the formulation of these objectives can be used as a standard in determining the level of achievement and success of a learning program that is developed and implemented (Fanani et al., 2022; Sugih et al., 2023). The objectives of science and science learning in elementary schools, according to the National Education Standards Agency (Septiana, 2023; Pertiwi & Rustini, 2023), intended to 1) gain confidence in the greatness of God based on the existence, beauty and order of His natural creation; 2) increase knowledge and understanding of IPAS concepts that are useful and can be applied in everyday life; 3) increase curiosity, positive attitudes and awareness about the mutually influencing relationship between IPAS, the environment, technology and society; 4) improve process skills for investigating the natural environment, solving problems, and making decisions; 5) increase awareness to participate in maintaining, guarding and preserving the natural environment; 6) increase awareness to respect nature and all its order as one of God's creations; and 7) obtain knowledge, concepts and skills in Natural Sciences (IPAS) as a basis for continuing education to junior high school.

As previously explained, the independent curriculum is a program that is very much in line with the agenda for improving the quality of education. Therefore, by understanding the independent curriculum program for class IV students at Sawahan II State Elementary School, Surakarta, in-depth, it is likely that teaching and learning activities, especially science and science lessons, will be enjoyable and effective. Teaching and learning activities by implementing an independent curriculum based on the principles of Ki Hajar Dewantara for class IV students at SD Negeri Sawahan II Surakarta in the science and sciences subject, even though it has been carried out seriously, may still experience obstacles or constraints.

Research on fun learning in the era of the independent curriculum has been carried out by several researchers, as Septiana (2023) concluded that the independent curriculum brings independence and happiness for students and teachers in learning activities, especially science and science learning to achieve the objectives of the independent curriculum policy. In line with this, it is said that the independent curriculum is a form of implementation of the values that shape national character, starting from improving the education system and learning methods. It is hoped that the independent curriculum can provide changes for the better and provide benefits to the environment (Chan et al., 2019; Nurhalita & Hudaidah, 2021; Sugih et al., 2023). The main spirit of the Merdeka curriculum is freedom of learning and learning for both students and teachers. This spirit of independent learning can only be found and implemented in the learning process if teachers and students understand the meaning of the independent curriculum, and especially teachers understand their role in the independent curriculum, so that the process and discovery of the meaning or value of the independent curriculum can influence and determine the implementation and results achieved (Vhalery et al., 2022; Pertiwi & Rustini, 2023).

The Merdeka curriculum program above will certainly really support educational progress if it can be implemented well. This program can be one way to improve the quality of Indonesian education on the one hand and the quality of Indonesian people in general on the other hand. Because this program is very dependent on teachers as the main pillar of education, it is necessary to

see to what extent the teachers have implemented the programs. The program. Apart from that, it turns out that there are many studies that consider it important and useful that current learning must pay attention to the elements or values of Ki Hajar Dewantara's education in schools, and the few studies mentioned still point to findings related to the implementation of the Merdeka curriculum which is currently the national curriculum by paying attention to the principles of ki Hajar Dewantara's education, as well as the challenges teachers face have not been identified when implementing them.

This research is certainly different from several previous studies, where the subjects of this research are teachers at schools that have implemented the Merdeka curriculum at the basic education level, as well as information from school management, such as the principal, which will also be explored to provide a comprehensive picture of the implementation. Merdeka curriculum and application of Ki Hajar Dewantara's educational principles in science and science learning in schools. So, it doesn't just rely on the answers given by the teacher; other components also provide insight and will be analyzed in this research. Therefore, this research aims to try to describe the application of the Merdeka curriculum in science and science learning based on the principles contained in the thoughts of Ki Hajar Dewantara, describing the obstacles and challenges faced by teachers as an effort to achieve successful implementation of the Merdeka curriculum in elementary schools. One of the implications of this research is that it can be used by teachers as a basis for implementing the Merdeka curriculum by paying attention to Ki Hajar Dewantara's educational principles in other learning in order to create a participatory, dynamic and interactive learning atmosphere.

2. Methodology

The research was conducted using a qualitative approach (Miles et al., 2016) with a case study model (Gallo & Roberts, 2019); of course, the choice of this case study model cannot be separated from the aim of describing the implementation of the Merdeka curriculum in science and science learning which is based on the principles of Ki Hajar Dewantara. It is hoped that the results of the descriptive data in this research will be able to explore and answer the research objectives. The data collection technique in this research uses non-test techniques consisting of participant observation and interviews with data collection instruments consisting of observation sheets and a list of questions (Fadli, 2021). The data collection technique is aimed at the research sample, where the research sample that will be used as a source of informants is the principal and teachers at SD Negeri Sawahan II Surakarta, with the sample selection technique being purposive sampling, totaling 4 people (Maisarah, 2019). The following is a grid of the instruments used in this research.

Table 1. Observation grid

No.	Aspect	Indicator
1.	Opening Phase	Providing motivation to students Delivery of learning objectives and their relevance Brain Storming
2.	Learning Phase	Class management Use of Learning Models and Strategies Use of Learning Media Conveying students' opinions about the material Quiz and Practice
3.	Closing Phase	Summary Reflection

Adaptation from (Haryanti et al., 2021; Murtianis et al., 2019)

Table 2. Instrument Grid of Interview Questions

No.	Aspect	Indicator
1.	Implementation of the Merdeka Curriculum	Implementation commitment Difficulty implementing the Merdeka curriculum
2.	Application of the Ki Hajar Dewantara Principles	Implementation of student-centered learning strategies Implementation of evaluation strategies (process and results) Difficulties and challenges in applying Ki Hajar Dewantara's educational principles in classroom learning Student feedback on the implementation kurikulum merdeka
3.	Facility	Availability of practice facilities Support for school facilities

Adaptation from (Jayanti et al., 2021; Anggraini et al., 2022; Rio Adriyanto et al., 2020)

Before being distributed, the instrument is first validated by consulting with experts, known as expert judgment, which is a critical discussion activity about the instrument that will be used in data search so that it can be used and meets the requirements as a research instrument (Bhangu et al., 2023).

Data collected through several techniques or data collection methods will then be validated. The data validation technique in this research uses triangulation techniques. From several triangulation techniques with all considerations, this research uses "Data Source" triangulation (Patel & Patel, 2019). The data obtained from various data sources is then analyzed, and the data used in this research is analyzed in a descriptive manner (Puri, 2019). It is hoped that this analysis technique will be able to provide an overview of the implementation of the independent curriculum with Ki Hajar Dewantara's educational principles in elementary schools. Furthermore, the data analysis technique chosen is descriptive and is carried out interactively and continuously, which consists of several stages, namely data reduction, data display or presentation, and data verification (Miles et al., 2016).

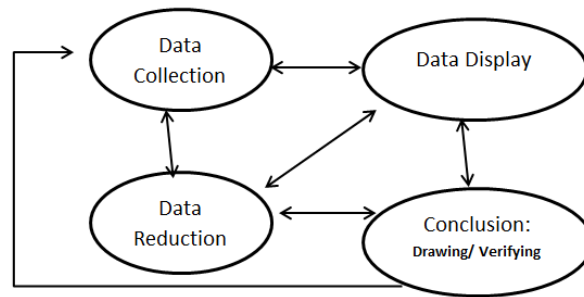


Figure 1. Model Analisis Interaktif (Miles et al., 2016)

3. Results and Discussion

3.1 Results

In the Freedom to Learn era, educational demands are undergoing a significant transformation to create a more dynamic, responsive and relevant learning environment. Education no longer only focuses on absorbing information but also emphasizes the development of critical, creative and problem-solving skills. Students are encouraged to become independent learners who are able to manage and structure their own learning. In this research, data was collected from interviews with teachers and school principals who stated that they had prepared suitable and relevant learning strategies to implement in order to implement learning that prioritizes learning principles based on the principles of Ki Hajar Dewantara. According to the principal, the results of the interview stated that the implementation of student-centered learning strategies needs attention and must be monitored together, both the process and the results. Because the school is committed to producing graduates with tough and competitive character, it is important to innovate strategies and implement learning models so that graduates can be equipped with 21st-century competencies.

From this, it can be seen that, in general, the results of the interview show that the principal of the school, who is functionally a teacher, is committed to and fully supports the policy of implementing a student-centred learning model, in order to achieve learning that prioritizes the principles of Ki Hajar Dewantara, namely the principle of independence, the principle of nature, cultural principles, national principles and humanitarian principles. The principal of the school expressed the view that by implementing a student-centred learning model, the implementation of an independent curriculum would become more visible and a truly liberating learning concept could be achieved as per the principles of education according to Ki Hajar Dewantara.

Apart from the results of interviews with school residents, important information found in this research is regarding the implementation of learning that is still taking place in the classroom in science and technology subjects. Through the observation process, it was discovered that learning in class 4 in science subjects, in particular tends to combine student-centered learning with various forms of case-based assignments. The same thing also happens in learning that takes place in grade 5, where teachers are more likely to implement student-centred activities during learning activities. It can be seen that during the learning process, students are very active and can be said to be very 'independent' in expressing opinions and fulfilling humanizing elements, where an attitude of mutual respect for opinions between one student and another emerges.

On the other hand, the results of this research also revealed that there are challenges that teachers face when implementing student-centered learning based on the principles of education, according to Ki Hajar Dewantara. As stated by teacher I, one of

the challenges in implementing learning based on Ki Hajar Dewantara's principles is students' limitations when actively discussing; it is very difficult to set boundaries and provide stimulus to students during the learning process, because of the tendencies and characteristics of elementary school students who prefer games and not wanting to be outdone by other students, sometimes making freedom of opinion a bit wrong as a competition that drags on until the end of class time. Furthermore, Teacher III revealed that another form of challenge is the assessment process, where assessment is an important aspect of evaluating the learning process. Many teachers are still not used to the presence of authentic assessments and are limited to using cognitive test methods to measure the achievement of learning objectives.

Referring to the results of observations over several days in the learning process and interviews with parties involved in implementing the independent curriculum in elementary schools, it appears that teachers have implemented student-centered learning quite well, although some of them also expressed the challenges they had to face and the adjustments they had to make must be done so that the implementation of the independent curriculum can run optimally. Overall, from the results of interviews and observations, it can be seen that the implementation of the independent curriculum has succeeded in implementing a student-centered learning model and has succeeded in slowly integrating Ki Hajar Dewantara's educational principles during the learning process, especially in the science and sciences subject, besides that the school has also provided support and full commitment to the implementation of this program; therefore it is hoped that this model can be useful as an innovation to create human resources and graduates with superior character and competitiveness.

3.2 Discussions

The application of the student-centered learning model, as seen from this research, is very relevant to be applied to learning at the basic education level because, apart from theory, they also need to be trained in freedom of opinion, expressing opinions, communicating and critical thinking, which of course really need these competencies in this 21st century (Rusdin, 2018; Yusof, 2019). Because, in general, the implementation of learning that takes place in the classroom is a teaching and learning process that involves various human senses. In the learning process, apart from delivering material, teachers are also required to integrate character values in every learning implementation, especially in religious education; students are expected to have abilities not only in cognitive aspects but also in psychomotor and affective aspects (Mansor et al., 2020; Perdana et al., 2021; Fajari & Chumdari, 2021).

Student-centered learning, which is currently implemented quite well in schools, is considered very relevant for them because this approach accommodates the needs and developmental characteristics of children at the elementary school level. By positioning students as the center of learning, teachers can better understand the uniqueness of each student and adapt teaching methods to suit their learning styles (Gu, 2021; Tholibon et al., 2022). This is also very relevant to the implementation of the independent curriculum, which states that the teacher begins to act as a facilitator who fully provides encouragement to students and makes students complete subjects of learning. In addition, student-centered learning also encourages active interaction, collaboration, and exploration, which suits children's high energy and curiosity (Tangney, 2014; Morel, 2021). In this context, students are not only recipients of information but also creators of knowledge through exploration and direct experience through integration made by teachers with Ki Hajar Dewantara's educational principles (Gonçalves & Capucha, 2020; Nurhalita & Hudaidah, 2021). This will indirectly increase learning motivation, help develop social skills, and provide a strong foundation for understanding critical concepts (Nur Jannah, 2020; Tusriyanto et al., 2019; Darhim et al., 2020). Thus, a student-centered learning approach not only prepares students with the academic knowledge but also forms critical thinking patterns and independence that are essential for their development at the elementary school level, where these competencies can become their provision to continue to a higher level of education (Kardoyo et al., 2020; Rosdiana, 2020). Apart from that, this research also has the potential to encourage changes in traditional teaching methods towards a more contextual and humanist approach in accordance with the development and needs of current elementary school students.

Although the findings from this study have the potential to provide valuable insights for readers, several limitations should be noted. First, the generalization of the research results may be limited because it focuses on case studies in elementary schools, plus it only involves one school as a research center, so the research results may not fully cover various elementary education contexts. In addition, this research may not be able to comprehensively measure the long-term impact of implementing a student-centered learning model and its integration with Ki Hajar Dewantara's educational principles on student learning outcomes over a longer period of time. Finally, aspects such as the influence of external variables, including school support and the social environment, may also influence the results of this research but may not be fully controllable within the case study framework used during the research process. Therefore, research proves that student-centered learning will make students, especially in elementary schools, play an active role in constructing their own knowledge through a series of activities designed by the teacher, actively collaborating, communicating, and being skilled in completing and managing time. Apart from that, through this learning model, students are given the opportunity to actively communicate and try to apply Ki Hajar Dewantara's educational principles, which are relevant to the implementation of the Merdeka curriculum.

4. Conclusion

In general, the research results show that so far, student-centred learning has become a relevant choice of learning model to equip students with the strong character and skills needed for the 21st century. It was identified that all teaching staff, from school principals to teachers, provide full support so that the implementation of the independent curriculum through student-centred learning can run optimally because, according to them, this learning strategy is an innovative learning strategy to be able to combine theory and practical learning efficiently to produce students who think critically and have superior character.

Apart from that, this research still has limitations, one of which is that the research results may be limited because it focuses on case studies in elementary schools, plus it only involves one school as a research center, so the research results may not fully cover various elementary education contexts. The findings of this research can be a basis and recommendation for residents at the basic education level in other places to be able to implement or even modify student-centered learning by integrating Ki Hajar Dewantara's educational principles which focus on certain principles from several educational principles that expressed by paying attention to the characteristics of the material in the subject.

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