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# Implementation of the Merdeka Curriculum In The Science Learning of Seventh Grade Class of SMPN 4 Jember

Nur Fida Fajriyah Nuzula[1*], Laila Khusnah[1]
[1] UIN Kiai Haji Achmad Siddiq Jember, Jember, East Java, Indonesia
[*]E-mail: nurfidafajriyah@gmail.com

Abstract

The Merdeka Curriculum is a new curriculum launched by the Ministry of Education as an effort to restore learning from 2022 to 2024. The Merdeka Curriculum encourages the implementation of project-based, problem-based learning methods and other methods that support children to freely explore. The objectives of this research are 1) to describe the implementation of the Merdeka Curriculum in class VII science learning at SMP Negeri 4 Jember. 2) to know the supporting and inhibiting factors for implementing the Merdeka Curriculum at SMP Negeri 4 Jember. This research used a descriptive qualitative approach. In collecting data, researchers used observation, interview and documentation techniques. The research was carried out from March to May 2023 with research subjects including Head of Curriculum, Science Teachers and Class VII students. Next, the data is analyzed and tested for credibility. The results of the research can be concluded that, 1) The Merdeka Curriculum is implemented in stages starting from class VII. In science learning, teachers use the Problem Based Learning model and differentiated learning. 2) supporting and inhibiting factors for the implementation of the Merdeka Curriculum include adequate facilities and infrastructure, the willingness of science teachers to learn about the Merdeka Curriculum, lack of references, little experience, and the unavailability of school gardens.

Keywords: curriculum, science learning, problem based learning

## INTRODUCTION

In February 2022, the Ministry of Education launched the Merdeka Curriculum which is in line with the merdeka learning program to improve the quality of learning. The Merdeka Curriculum is a curriculum with intracurricular learning that focuses on basic material or important material that students need to understand, so that students have sufficient time to understand concepts and develop their competencies. In the learning process, the Merdeka Curriculum encourages implementing project-based, problem-based learning methods and other methods that support children to explore freely. This opportunity should be used to implement learning that focuses on student characteristics. (Indonesian Ministry of Education and Culture, 2023).

Problem Based Learning (PBL) is a model that focuses on student-centered learning. Students are the main subject in the learning process, because in PBL learning students will be oriented towards a problem to then carry out investigations and find a solution to existing problems. The PBL learning model is an approach to learning that uses real problems to be used as learning material for students about how to think critically, carry out investigations, problem-solving skills and find solutions

(Kurniawan and Wuryandari, 2017). PBL learning emphasizes student activity in the learning process by optimizing their abilities through investigation in searching for new information to obtain a solution, so that students can hone their critical thinking skills (Hartati, 2022).

The implementation of the PBL model in the Merdeka Curriculum is different from the 2013 Curriculum, namely by using differentiated learning. One of the structures of the Merdeka curriculum is to carry out differentiated learning according to students' abilities, meaning learning that meets students' learning needs both in terms of learning readiness, interests or learning profiles, and teachers must meet these learning needs. In differentiated learning the teacher facilitates students according to their characteristics and learning needs, so that students' learning needs are met. If teachers do not provide learning that suits students' characteristics and needs, it can hinder students' development in learning. Differentiated learning is expected to make students feel happy when learning and their learning needs are met (Kemendikbud, 2023).

Natural Science is science that discusses natural phenomena and their contents. Science is related to the acquisition of knowledge through observation, experimentation, formulating theories, making conclusions and producing a product. Science is not just about a collection of facts or concepts, but includes the process of discovering, how to find out and do things related to the universe (Rifa'i, 2020). To carry out such a learning process, a learning model is needed that supports and direct guidance from teachers (Khusnah, 2020). The PBL model frees students to carry out investigations and seek their own information regarding a problem faced by students with the teacher as a facilitator. So the PBL model is suitable to be applied to science learning in order to provide meaningful experiences to students so that they better understand the concepts or principles being taught.

Based on data from initial observations carried out by researchers, it is known that SMPN 4 Jember is the first junior high school to implement the Merdeka Curriculum in the city of Jember. Teachers design science learning with differentiated learning or learning that facilitates students' learning needs and uses a problem based learning model, which is considered suitable for application to the Merdeka Curriculum. So researchers are interested in conducting research at this school regarding "Implementation of the Merdeka Curriculum in Class VII Science Learning at SMP Negeri 4 Jember". It is hoped that the results of the research conducted can provide information or insight to readers regarding the implementation of the Merdeka Curriculum in science learning at SMPN 4 Jember.

## METHOD

This research used a descriptive qualitative approach. The research was conducted at SMPN 4 Jember because this school is the first junior high school that implement the Merdeka Curriculum in the city of Jember. The research was


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carried out from March to May 2023. The subjects of this research were the Head of Curriculum, class VII science teachers and class VII students. The techniques or methods used by researchers to collect data include observation, interviews and documentation. After that, data analysis will be carried out which includes data condensation, data presentation and conclusions.

Data condensation is the process of selecting, focusing, simplifying, abstracting, and transforming data that has been obtained when collecting until a final conclusion can be drawn. Data presentation is a collection of data that is organized and put together so that conclusions can be drawn. Next is drawing conclusions and verification. In qualitative research, the conclusions made must be supported by strong data so that they become credible conclusions (Miles et al., 2014).

This research uses a triangulation credibility test and reference materials to test the validity of the data. Triangulation is the process of re-examining data obtained from various sources using various methods (Sugiono, 2020).

## RESULT AND DISCUSSION

The Merdeka Curriculum implementation policy was carried out as an effort to restore learning in Indonesia from 2022 to 2024. This curriculum will be reviewed in 2024 to be used as a reference in determining national curriculum policies. Structure of

The curriculum in SMP/MTS secondary education consists of one phase, namely phase D. Phase D refers to classes VII, VIII and class XI. Based on this description, it was found that the implementation of the Merdeka Curriculum at SMPN 4 Jember began in the new academic year 2022/2023, to be precise in July. The implementation of the Merdeka Curriculum is carried out in stages starting from class VII and will continue to class VIII and IX. Even though the implementation of the Merdeka Curriculum is still new, at SMPN 4 Jember the implementation is running smoothly. Its supported by facilities and infrastructure that are also sufficient to implement the Merdeka Curriculum as seen in figure 1.

**Figure 1.** Facilities and Infrastructure

There are several things that teachers must prepare before carrying out the learning process. The following is the explanation given by Mrs. Laili regarding the preparations that must be made before starting the learning process, "There are many things, the first thing we have to prepare is the diagnostic assessment, then the formative assessment is prepared during the learning process, then the assessment at the end is the summative assessment. That's what we have to prepare as teachers who want to implement

Merdeka-based learning."

The Merdeka Curriculum encourages implementing project-based, problem-based learning models that support students to explore freely. Teachers also need to design assessments that are carried out at the beginning of learning, during learning, and at the end of learning. Assessment planning, especially in the initial learning assessment, is very necessary because it is to identify students' learning needs, and the results are used to design learning that is appropriate to the student's stage of achievement (Kemendikbud, 2023).

The science learning carried out by Mrs. Laili uses the recommended learning model and is compatible with the Merdeka Curriculum. The following are the results of an interview with Mrs. Laili regarding the learning model she uses. "Yes, usually I do problem-based learning, including projects too. The latter is usually at the end of the project-based content. Where is the differentiation? The differentiation that I use is product differentiation, but in the middle of the content differentiation I use process differentiation, during the formative assessment during that process. Then, if it's product-based, I usually use a product-based differentiated learning process. So when he produces the product, let the children know what kind they want. For example, biotechnology, for example A wants to make a tape, please collect the video, but the video must be uploaded on a YouTube link, Ma'am, ask for the link. There are others who want to just make the paper, there are also those who start from the manufacturing process. That point is a value point, meaning he already had a business there until this product was formed. Yes, freedom is called differentiation, right according to their ideas about what they want as long as they don't deviate from the process."

Based on the description above, it was found that class VII science learning at SMPN 4 Jember in the Merdeka Curriculum was carried out in accordance with the recommended learning model, namely problem-based learning (PBL). The implementation of the PBL model in the Merdeka Curriculum is carried out with differentiated learning that accommodates students' learning needs. Problem-based learning is a learning process that confronts students with a problem that can challenge students to learn and work hard in groups to find solutions to problems that occur so that a reciprocal process occurs between stimulus and response (Rahayu, 2019). Through this learning, it is hoped that students can express their ideas and opinions so that they can hone their abilities. As seen in figure 2, student are conducting discussions to solve a problem given by teacher to find a solution in a grup.

**Figure 2.** Student discussion activities

The implementation of the PBL model


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in the Merdeka Curriculum is carried out with differentiated learning that accommodates students' learning needs. Problem-based learning has several syntaxes including (Arends, 2012).

a. Student orientation to the problem
b. Organize students to study
c. Guide individual or group investigations
d. Develop and present results or products
e. Analysis and evaluation of results.

Based on the results of interviews and observations carried out, researchers discovered that class VII science learning at SMPN 4 Jember using the PBL model was carried out in accordance with the syntax although there were still stages that were implemented less than optimally. When the researcher made the first observation during an ecology lesson, students were conducting an investigation about conservation and the teacher seemed to be lacking in guiding students' activities in the investigation because the teacher had an assignment from school which required students to be left for a while. Apart from that, in this ecological content there are no products or works created by students. The results of discussions carried out by students were only expressed in the form of product design reports, not reaching the stage of producing or making products as a conservation activity.

Teachers in the process of implementing the Problem Based Learning model use differentiated learning, which is adapted to the material to be studied, including differentiation of process and product content. When learning with material that produces products the teacher will differentiate the product. However, in the middle of the content the teacher will differentiate content and process. Content differentiation carried out by teachers predominantly uses learning videos. Through learning videos, several student learning styles can be met, because videos contain images and sound.

Differentiated learning is one of the main characteristics of the Merdeka Curriculum, which differentiates it from the previous curriculum. With differentiated learning, teachers can design learning that suits their students' abilities (Kemendikbud, 2022). Based on the results of interviews with Mrs. Laili and observations during science learning in class, researchers can conclude that the problem-based learning model and differentiated learning have advantages that are felt by teachers and students, one of which is well-being students. Students feel happy during the learning process because it suits their needs and desires, so that learning objectives are achieved optimally. Apart from that, problem-based learning also accommodates students' learning needs, because through PBL students can express their ideas, they can provide their own opinions to provide solutions to problems. the enthusiasm of students in the presentation of the discussion results can be seen in figure 3.

Implementing the Merdeka Curriculum requires preparation in several aspects, such as teacher readiness, infrastructure and the condition of the

**Figure 3.** Presentation of discussion results

school itself to support the implementation of the Merdeka Curriculum. Based on the results of an interview with Mrs. Ratna Indayani as Deputy Head of Curriculum at SMPN 4 Jember, she explained the supporting factors in implementing the Merdeka Curriculum at SMPN 4 Jember, "The infrastructure is supportive, the teachers are willing to learn. So even though this is the beginning, change is difficult at first. "Yes, we look for various information, such as references to teaching modules and so on, so we learn merdekaly."

There are several things that can influence the success of the curriculum, including the leadership of school principals, teachers, infrastructure, student activities, learning resources and school committees (Mondang, 2020). Factors that support the implementation of the Merdeka Curriculum at SMPN 4 Jember include adequate facilities and infrastructure, supportive school conditions and teachers who are willing to learn about the Merdeka Curriculum. In science learning, the infrastructure is also adequate, including the existence of a science laboratory with adequate equipment. However, there are still several inhibiting factors at SMPN 4 Jember in implementing the Merdeka Curriculum, including new experiences regarding the Merdeka Curriculum, lack of references regarding the implementation of the Merdeka Curriculum, there are still some teachers who do not take part in webinars about the Merdeka Curriculum and do not have a school garden that functions as a learning resources in science learning.

Apart from the several inhibiting factors above, schools always carry out evaluations and make efforts to overcome problems that arise. For the learning process, reflection is carried out every week, there is guidance from the school principal. Teachers gather and share experiences and perceived obstacles and then work together to find solutions. In implementing P5, reflection is carried out at the end of the project. The P5 project with the first theme will be evaluated and if there are still deficiencies, they will be corrected in the second theme. Meanwhile, the lack of school gardens can be overcome by science teachers, by holding a one man one plant program or 1 student 1 plant so that a small garden can be formed which can be used as a science learning resource.

## CONCLUSION

Based on the description of the findings above, it can be concluded that the implementation of the Merdeka Curriculum in science learning at SMPN 4 Jember is implemented using the Problem Based Learning learning model and the differentiated learning. In implementing


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the PBL model, there is syntax that is not implemented, namely presenting the product. Differentiation learning on ecological material is carried out by teachers with 3 strategies, namely content, process and product differentiation. Supporting factors for implementing the Merdeka Curriculum include complete facilities and infrastructure as well as teachers who are willing to learn about the Merdeka Curriculum. Factors inhibiting the implementation of the Merdeka Curriculum are the lack of references regarding the implementation of the Merdeka Curriculum, new experiences, not having a school garden and there are still teachers who do not participate in the Merdeka Curriculum webinars.

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**BRIEF PROFILE**

Nur Fida Fajriyah Nuzula was born on Oktober 19th 2001. Student at Natural Science Education Department of UIN Kiai Haji Achmad Siddiq Jember.

Laila Khusnah, lecturer in Natural Science Education Department, Faculty of Education and Teacher Training, UIN Kiai Haji Achmad Siddiq Jember.


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