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EXPLORATION OF TEACHER READINESS IN MATHEMATICS LEARNING AT THE MERDEKA CURRICULUM IN BRAWIJAYA SMART SCHOOL (BSS) JUNIOR HIGH SCHOOL MALANG

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Abstract Efforts to change the curriculum in the context of accelerating recovery in the field of education in the post-pandemic era are contained in the policies of the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia as indicated by the presence of the "Merdeka" curriculum. The role of the teacher in the Merdeka curriculum is very important in order to achieve the desired curriculum goals. Therefore, teachers also need readiness in implementing an Merdeka curriculum. The research was conducted qualitatively with a case study conducted at the Brawijaya Smart School Junior High School (SMP BSS) Malang on mathematics teachers. Several characteristics and policies of the Merdeka curriculum will be analyzed how much the readiness of teachers and the challenges faced in implementing the Merdeka curriculum will be analyzed.

Keywords Merdeka Curriculum; Teacher; Readiness; Junior High School

A. INTRODUCTION

The development of technology and its use from time to time causes real changes in various sectors of life. These changes are made as an effort to improve the quality and quality of all aspects of life. One of them is a paradigm shift towards the use of technology in aspects of education and social dynamics. The quality and quality of education will basically determine a prosperous and prosperous social life. Curriculum change by integrating technology is one of the impacts. Changes on the basis of needs as a measure that each policy will change. At a certain time, a curriculum that is considered "ideal" must still require efforts for change and innovation in order to realize life and social needs. This is inseparable from the periodic evaluation carried out. The evaluation findings indicate that there are deficiencies that must be corrected along with the times in order to meet the demands and needs of the community. Indonesian education has responded to challenges and changes in the context of accelerating recovery in the field of education in the post-pandemic era. This effort is contained in the policy of the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia which is indicated by the presence of the "Merdeka" curriculum which has been initiated and designed with great consideration.

The analytical study shows that curriculum changes are based on the limitations of curriculum concepts from both the teacher and student perspectives. The limitation in question is the existence of a barrier that dwells on the learning objectives to the exclusion of other competencies from students which could be competencies that exist in students outside of the learning objectives. This is one of the limitations for students to show their abilities and competencies (Indarta et al., 2022). Another context in the implementation of learning carried out by teachers is that students are

required to compete in obtaining the highest achievement or value. The current implementation of the Merdeka curriculum is very relevant to provide space and opportunities for students to be able to develop the skills and talents possessed by each of them. Not only that, Basuki (2020) states that the Merdeka curriculum is literate in the formation of student character. Character as a soft-skill in learning outcomes continues to be honed. This is intended as a supporting capability in producing quality educational outputs. Characters that are continuously honed are characters in accordance with global developments, such as 4C, Critical thinking, creative, collaborative, and communicative by not neglecting the nation's noble character, namely Strengthening the Pancasila Student Profile (P3). Thus, it can be concluded that the Merdeka curriculum leads to a learning process with the aim of meeting the needs of students.

The characteristics possessed by the Merdeka curriculum include:

1. A project-based learning system that aims to develop soft skills and also strengthen character with the profile of Pancasila students.
2. Learning with essential materials that focus on the learning system through basic competencies such as literacy and numeracy.
3. A more flexible curriculum structure that allows teachers to have flexibility in terms of being able to adapt students' abilities to the context of local content.

The teacher's role in the Merdeka curriculum is to be able to teach according to the stage of student achievement (Nurani et al., 2022). The role of the teacher in the Merdeka curriculum is to be able to teach according to the stage of achievement of student development (Izza et al., 2020). This means that the Merdeka curriculum involves independent/ freedom conditions in fulfilling the objectives, methods, materials, and evaluation of learning, both teachers and students. That way, teachers and students can collaborate in creating more active learning. From there, it is hoped that the existence of an Merdeka curriculum can optimize student learning.

On the other hand, the free learning curriculum policy for the time being can be used as a curriculum option that will be applied to schools that want it. The purpose of the policy is expected to occur gradually until a national curriculum change in 2024 (Kemdikbud, 2022). Previously, this Merdeka curriculum had been applied to the driving school program in Indonesia in an effort to minimize the learning crisis and the learning loss that occurred during the Covid-19 pandemic. In the first year the implementation of the Merdeka curriculum in several driving schools went quite well, then it was developed by other schools the following year, so that it was considered quite relevant according to the characteristics of Indonesian culture compared to the previous curriculum, Curriculum 2013.

The Merdeka curriculum will not run without careful preparation as was the case in implementing the new curriculum in previous years. All teachers play a role in supporting the implementation of an Merdeka curriculum, one of which is a mathematics teacher. Mathematics teacher is one of the teachers of other subjects who also participate and play an important role in implementing an Merdeka curriculum in a school. The readiness of mathematics teachers that need to be considered in implementing an Merdeka curriculum includes understanding and what things need to be prepared by teachers in implementing an Merdeka curriculum, especially in terms of technical teaching applied.

Research conducted by Afista et al. (2020) regarding the readiness of Islamic education teachers in facing the Merdeka curriculum policy, it was found that Islamic education teachers at Madrasah Tsanawiyah Negeri 9 Madiun had high readiness in preparing short lesson plans and had low readiness in implementing Minimum Competency Assessment (AKM) and character surveys as a substitute for the National Examination in terms of cognitive, physical, and psychological aspects. Some of these Merdeka curriculum policies are related to how prepared teachers are to support learning in the classroom. In addition, teachers' understanding of the independent curriculum also has an impact on the readiness of teachers to implement the Merdeka curriculum (Rosidah et al., 2021), especially in the application of authentic assessment. There are 52% of teachers in Gondang sub-district classified as less ready to implement authentic assessments because they are not used to it, the remaining 48% are classified as ready with the provision of understanding from the socialization held by the government. On the other hand, research related to understanding, further readiness, and challenges of teachers as supporters of the implementation of the Merdeka curriculum

has not been analyzed further in previous studies. Therefore, based on two things, namely the characteristics of an Merdeka curriculum including: project-based learning system, essential materials, flexibility of curriculum structure; and two of the four Merdeka curriculum policies (Assessment and Learning Implementation Plans), so that they can be analyzed regarding the understanding, readiness, and challenges of mathematics teachers as supporters of the implementation of the Merdeka curriculum at Brawijaya Smart School (BSS) Junior High School of Malang which has been implemented since the third month of 2022 in class VII.

B. METHODS

This research is a type of qualitative research with case studies. Qualitative research is research that intends to understand the phenomena of what is experienced by research subjects, such as behavior, perceptions, actions, and others by descriptive means in the form of words in a special natural context by utilizing various natural methods (Moleong, 2012). According to Creswell (2016), a case study is a research strategy to carefully investigate a matter by collecting complete information using data collection procedures. Patton divides three qualitative data collection methods, namely in-depth interviews, observation, and written documents (Alsa, 2014).

This research was conducted at the Junior High School Brawijaya Smart School Malang on mathematics subject teachers to analyze the understanding, readiness, and challenges of mathematics teachers related to the characteristics of an Merdeka curriculum and Merdeka curriculum policies. The research instrument is the author himself with the help of documentation in the form of audio and visual. Visual documentation was carried out during direct observation at the research location. This documentation is in the form of photos, notes, and other documents. While audio documentation was obtained by researchers through deep interviews by recording dialogues or conversations with the research subject, namely the mathematics teacher. The researcher used a list of interview questions as a guide. At the time of the interview using the deep interview technique, it does not only focus on the questions that are already available, but it is very possible for new questions to arise according to the information needs submitted by the subject to be explored more deeply. This really needs to be done to obtain more comprehensive information on the readiness of teachers to implement the mathematics learning process in the Merdeka curriculum. The interview question guidelines adapted to the research objectives are presented in Table 1 as follows:

Table 1: Interview question guide

Number	Questions
1.	What do you know about the Merdeka Curriculum?
2.	How is the implementation of the Merdeka Curriculum at your school?
3.	What steps are you trying to take as a teacher regarding the Merdeka Curriculum?
4.	What is your opinion about the Merdeka Curriculum?
5.	Does the Merdeka Curriculum complicate the educational process?
6.	How is the involvement/participation of students in learning in the Merdeka Curriculum era?
7.	What are the advantages of Merdeka curriculum? (compared to the previous curriculum)
8.	What challenges did you experience when implementing Merdeka curriculum?

The data processing of the interview results was carried out using descriptive techniques. This data analysis is inductive by using the Miles and Huberman model, namely the interactive model. According to Miles and Huberman, the activities in this data analysis are data collection, data reduction, data display, and then ends with verification or drawing conclusions (Sugiyono, 2014). Data reduction is the process of selecting, simplifying, abstracting, and transforming rough data obtained during research activities in the field. The data reduction of this research was carried out by collecting the results of interview notes with informants, results and documentation results. Data reduction is done by coding, so that the basic data in the raw data can be known. So that the data can provide a clear picture and make it easier for researchers to analyze, interpret, and draw conclusions.

C. RESULT & DISCUSSION

The teacher is one of the central figures in education who is the main person in conveying scientific material to students (Ainia, 2020). In carrying out a learning program, of course the teacher has preparation related to learning tools and other important things needed. Teacher readiness is the condition of a teacher which can be seen from giving answers by using a technique in carrying out the teaching profession (Rosidah et al., 2021). The readiness of a teacher is determined by the ability factor in mastering the field, interests and talents, so that there is alignment with the goals to be achieved in the field of the teaching profession. In addition, the supporting factors for teacher readiness are enthusiasm and determination from within and motivation from external parties.

Teachers are also required to adapt to the curriculum that is being implemented for the first time. Like mathematics teachers who are currently starting to get used to an Merdeka curriculum environment. Preparations for implementing the Merdeka curriculum are starting to be common, as is the case with mathematics teachers at Brawijaya Smart School Junior High School (SMP BSS) Malang. This readiness is not only seen from the conceptual understanding, but also the implementation and evaluation that has been done.

The results of this case study are presented in the form of descriptive interpretations of the results of interviews and observations of mathematics teachers at Brawijaya Smart School Junior High School (SMP BSS) Malang in responding and responding to the implementation of the Merdeka curriculum. The results obtained are diversity in terms of aspects/signs of teacher readiness in facing an Merdeka curriculum. These aspects include, among others, related to: 1) characteristics of an Merdeka curriculum including project-based learning, essential materials, flexibility of curriculum structure; and 2) independent curriculum policies, including assessment and learning implementation plans.

The implementation of the Merdeka Curriculum (IKM) itself consists of three levels, namely Merdeka Learning (level 1), Merdeka Changing (level 2), and Merdeka Sharing (level 3). Schools that are still at level 1 are said to have not changed their curriculum structure. On the other hand, for schools that are already at level 2 or 3 of IKM, the curriculum structure used has been changed and recorded in Dapodik. It should be noted that currently BSS Junior High School is still implementing level 1 IKM, namely Mandiri Learning. This is because the independence curriculum has just been implemented in grade VII which is still running for approximately 3 months, while grades VIII to IX previously still applied the 2013 curriculum and the emergency curriculum, namely the simplified curriculum from the 2013 curriculum to be used during the Covid-19 pandemic. .

The response proposed by the BSS Junior High School mathematics teacher to the notion of an Merdeka curriculum was considered quite understanding. Where the Merdeka curriculum applies learning that liberates students in learning knowledge while still paying attention to the characteristics and needs of each student, so that students can survive the material and its application. For example, mathematics is not only taught theoretically, but also more related to the problems of everyday life. Regarding the application of mathematical problems that are integrated with real life, the seventh grade mathematics teacher of BSS Junior High School often provides a real-life picture through the provision of story type questions. In addition, teachers also have the flexibility to choose learning methods and media, so that learning is tailored to the learning needs and interests of students.

One of the implementations of Merdeka curriculum learning in BSS Junior High School is the different teaching processing methods in a class. The difference in processing methods is caused by the diverse characteristics of students, especially in terms of their learning styles. In fact, starting from the beginning of class VII in the 2022/2023 academic year, BSS Junior High School has begun to group students in a class based on fingerprint tests and pay attention to interests, talents and reflect the diverse characteristics of students. So that students can "choose" how to learn according to their learning needs while still paying attention to the provisions that have been applied, so that learning becomes meaningful and fun. The mathematics teacher's statement is supported by the principle of Merdeka curriculum learning, namely considering the stage of development and level of student achievement.

In addition, mathematics teachers at BSS Junior High School also have flexibility in choosing

materials based on the limitations contained in the Learning Outcomes (CP). The material offered in Learning Outcomes (CP) is an essential/basic material, where every material that students learn does not escape the connection with problems in terms of the context of life. The targets of the Learning Outcomes (CP) as a substitute for Core Competencies (KI) and Basic Competencies (KD) are used as prerequisites for taking the next material. The learning achievement targets are delivered every time the learning takes place. Then the results of the Learning Outcomes (CP) of each student are assessed using the Minimum Competency Assessment (AKM) learning tool.

Regarding learning tools, the term Learning Planning Plan (RPP) is no longer used in the Merdeka curriculum, but has been replaced with Teaching Modules. In the teaching module there are at least learning objectives, learning steps (including learning media), assessments, student worksheets, and other learning references that can assist teachers in carrying out learning. The teaching modules are simple and informative which are easily understood by the teachers themselves. The Minimum Competency Assessment (AKM) is also an important policy that needs attention. Like the Teaching Module, the Minimum Competency Assessment is also structured in such a way as to keep it simple, easy to understand from students to parents, and informative. The Minimum Competency Assessment contains the characters and competencies achieved, as well as follow-up strategies. It should be underlined that AKM is not guided by the Minimum Completeness Criteria (KKM). Student learning achievement is identified from the achievement of learning objectives. Learning objectives are informed to students so that they can find out the targets that must be completed (Imrotin & Sari, 2022). The BSS Junior High School mathematics teacher also emphasized that teachers are given the freedom to determine the criteria for learning achievement in accordance with pre-determined learning objectives.

Students' character building is also trained every day through routine activities, such as examples of religious character building by holding the reciting holy Quran every Monday to Thursday. This is also related to the existence of project-based learning held every week, precisely on Fridays and the time allocation required is 2 (two) hours of lessons. The two hours of lessons are the result of eliminating hours for each subject. However, there was no change in the total lesson hours, only the lesson hours for each subject were allocated for 2 (two) learning activities: (1) intracurricular learning, and (2) a project to strengthen the Pancasila student profile. The project was held with the aim of strengthening the character of the Pancasila Student Profile (P3) which was developed based on certain themes determined by the government. The Pancasila student profile strengthening project is aimed at training students in finding real issues in the surrounding environment and training collaboration skills in solving these issues (Kemendikbud Ristek, 2021). The output of the project results at BSS Junior High School is carried out twice in a period of one semester. This project is not intended to achieve certain learning achievement targets, so it is not tied to the content of certain subjects. In addition, character building at BSS Junior High School is also held every morning called "morning greeting" namely teacher activities to ensure student attendance and literacy activities carried out by students. Literacy activities are determined by the school by reading articles, then reviewing the contents of the articles and writing down the messages contained in the articles. This is used as a support in accordance with the characteristics of learning with essential materials that focus on the learning system through basic competencies, namely literacy, which with this literacy is also able to increase student creativity. (Deswari, 2015).

Based on the results of interviews, mathematics teachers made efforts to support the implementation of an Merdeka curriculum, such as participating in training or the like which was facilitated from the BSS Junior High School itself or from outside, then the information obtained was forwarded to the school and shared during the School Subject Teacher Consultation (MGMPs), especially MGMPs Mathematics. The goal itself is to create a good communication network, for example in the independent curriculum, each class has different mathematics subject matter that will be given considering the flexibility of students in understanding the material according to the time limit given. In other words, the materials to be provided need to be negotiated with the mathematics teacher (serumpun) so that in the future there will be no miscommunication between mathematics teachers.

As for the responses of mathematics teachers at BSS Junior High School regarding the implementation of the Merdeka curriculum. First, teachers feel interested in learning new things that

are presented in the independent curriculum. Furthermore, the flexible materials taught remain in accordance with the set learning objectives, and can increase the creativity of mathematics teachers in using learning methods and media. On the other hand, the mathematics teacher at the school once thought that this Merdeka curriculum was difficult to implement, considering that it was still being implemented recently, so it needed to adapt to these changes. Challenges after challenges faced by mathematics teachers include: (1) there is a learning loss of students caused by the change from distance learning system to face-to-face learning, so it is very possible for differences in competency achievement, so it is hoped that with the implementation of an Merdeka curriculum this can be a solution to solve the learning crisis that occurs (Nugraha, 2022); (2) familiarizing students "again" regarding how to learn, learning activities, and the problem of dividing study time during offline learning due to the Covid-19 pandemic yesterday; and (3) being able to vary the appropriate learning methods so that there are no student misconceptions regarding the material being studied, so that the varied methods need to be carried out appropriately so that students can continue to learn with a different "way" or process, but aiming at the "outcome/ same gain". Teachers are also given the task of developing their own learning objectives, so that although this is an independence for teachers, on the other hand teachers also need to adapt by preparing themselves.

From the results of observations and responses of mathematics teachers at BSS Junior High School regarding the attitudes of class VII students towards the implementation of the independent curriculum, they are considered to be well received. Students feel that they enjoy the implementation of the Merdeka curriculum, however, periodic evaluations will still be conducted to find out further student responses regarding the implementation of the Merdeka curriculum. Likewise, from the results of observations of teachers when teaching in core activities, where when the teacher wants students to form groups, the teacher does not provide a special group division where each group consists of students with various types of unique characteristics of each. Based on the concept and characteristics of the Merdeka curriculum, it is less supportive if it is applied in learning that applies the Merdeka curriculum. So that it is possible for students to be less able to see different points of view with the same result / solution. Therefore, teachers need to pay more attention to the formation of study groups during learning.

Based on the results of interviews and observations, it was found that mathematics teachers at BSS Junior High School can be said to have quite good readiness in implementing an Merdeka curriculum. This can be seen from the responses given by the teacher which are then analyzed based on previous studies. In addition, the BSS Junior High School's mathematics teacher was able to quickly adapt to the novelty of the Merdeka curriculum which, if calculated, was still running for approximately 3 months. The challenges faced need to be balanced with support or reinforcement for teachers, principals and other education personnel. In addition, curriculum changes and their challenges will always be in the future, adapted to human needs from time to time and periodic evaluation is needed to find out what things need to be addressed in order to support the achievement of the relevant curriculum structure. From this, it can be said that every time there is a curriculum change that needs to be prepared by a teacher, it is enough to adhere to the basic competencies of the profession that they already have and not be rigid in the face of novelty, but still pay attention to the fundamental changes in the curriculum.

D. CONCLUSION

Based on the results of interviews and observations, it was found that mathematics teachers at BSS Junior High School can be said to have quite good readiness in implementing an Merdeka curriculum when viewed from the level 1 implementation of the Merdeka Curriculum (IKM). project-based learning, essential materials with contextual application, flexibility of curriculum structure, as well as new policies set out in the Merdeka curriculum, namely the Minimum Competency Assessment (AKM) and Learning Implementation Plans (RPP) which switch to Teaching Modules. Another readiness that has been seen is training activities that have been carried out regularly and understanding related to student character development through the Pancasila Student Profile project. In addition, the challenges faced by mathematics teachers in dealing with the implementation of an Merdeka curriculum include: (1) there is a learning loss for students which allows for differences in competency achievement; (2) familiarize students with learning methods, learning

activities, and the problem of dividing study time during offline learning; and (3) are required to be able to vary the appropriate learning methods so that there are no student misconceptions regarding the material being studied.

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