



Geography Teacher Preparation in Designing Learning Based on the Independent Curriculum at SMAN 1 Seputih Surabaya

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ABSTRACT

This study aims to analyze the readiness of geography teachers in designing learning based on the Independent Curriculum and to identify the challenges they face at SMAN 1 Seputih Surabaya. Using a qualitative descriptive approach, data were obtained through interviews, observations, and documentation to provide a comprehensive picture of teacher preparation and classroom implementation. The findings indicate that teachers have made several efforts to align with the Independent Curriculum, including studying its principles, developing flexible teaching modules, preparing lesson plans that emphasize student-centered learning, and integrating local context into geography materials. Teachers also utilize various learning media such as maps, digital platforms, and visual aids to make lessons more interactive and meaningful. However, several challenges persist, such as limited understanding of the technical aspects of the curriculum, time constraints in preparing innovative materials, inadequate facilities, and the varying levels of student readiness and motivation. Resistance to change among some educators also hinders smooth implementation. Overall, geography teachers at SMAN 1 Seputih Surabaya show good preparation, but successful implementation requires continuous professional development, better infrastructure, and ongoing mentoring to ensure that curriculum objectives are effectively achieved.



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INTRODUCTION

Education is a conscious effort made by society and the nation to prepare the younger generation to face change and ensure a better future for the country. Education is inseparable from human life as it serves to develop potential, skills, and understanding toward achieving happiness and well-being. In the formal context, education is organized systematically from the elementary to higher education levels, with the curriculum serving as the main guideline in the learning process. According to Law No. 20 of 2003, the curriculum is a set of plans and arrangements regarding objectives, content, teaching materials, and learning methods that guide the implementation of educational activities to achieve national education goals.

Since independence, Indonesia's education curriculum has undergone numerous changes, including those in 1947, 1968, 1975, 1994, 2004, 2006, and 2013, with a revision in 2018. These frequent changes have

often posed challenges for teachers in adapting and developing effective lesson plans. The Covid-19 pandemic further exacerbated this situation by lowering the quality of learning, increasing educational inequality, and reducing students' academic abilities due to limited interaction and inadequate online learning facilities.

An evaluation of the 2013 Curriculum by the Board of Education Standards, Curriculum, and Assessment (BSKAP) identified several weaknesses, such as overly broad competencies, complex instructional components, and insufficient teacher training. The curriculum was also considered less flexible and unable to accommodate the diverse needs of schools, regions, and students. As a result, the government introduced the Merdeka Curriculum as an improvement and solution to these problems, aiming to restore learning after the pandemic and reduce educational disparities across Indonesia.

The Merdeka Curriculum is designed to give students greater freedom to choose learning activities based on their interests and abilities. It emphasizes student-centered learning, character development, and 21st-century competencies, while promoting the "Pancasila Student Profile." The Sekolah Penggerak (Driving School Program) is one of the initiatives supporting its implementation, encouraging schools to become pioneers of innovative learning that fosters lifelong learners. The success of this curriculum, however, largely depends on teachers' preparedness and their roles as the main drivers of classroom transformation.

In this context, teachers must be well-prepared, possessing a deep understanding of the new curriculum's concepts, the ability to design effective learning modules, and the skills to manage flexible and contextual teaching. Geography teachers at SMAN 1 Seputih Surabaya are among those implementing the Merdeka Curriculum, playing an essential role in helping students connect geographic concepts with real-life contexts. However, the extent of teachers' readiness and the challenges they face in applying this curriculum at the school remain underexplored. Therefore, this study, titled *Geography Teacher Preparedness in Designing Learning Based on the Merdeka Curriculum at SMAN 1 Seputih Surabaya*, aims to identify the forms of preparation and obstacles experienced by teachers in implementing the new curriculum.

Based on the research problems stated above, the objectives of this study are to understand how Geography teachers prepare to design learning activities based on the Merdeka Curriculum at SMAN 1 Seputih Surabaya and to identify the challenges they face in implementing this curriculum. This research aims to explore the level of teacher readiness in adapting to the principles of the Merdeka Curriculum and to analyze the obstacles that may hinder the effective design and implementation of Geography learning in the classroom.

Depi (2011) in her research stated that preparation is the readiness to perform an action, to get ready, or to make arrangements for something. Teacher preparation serves as the foundation and a control tool to achieve learning objectives. To reach these objectives, a comprehensive educational plan is required, which is implemented through the curriculum. The Merdeka Curriculum is a curriculum featuring diverse intracurricular learning, where content is optimized to allow students sufficient time to deepen their understanding of concepts and strengthen their competencies. Teachers are given the flexibility to select various teaching tools so that learning can be adapted to the needs and interests of students. The Merdeka Curriculum is developed to be more flexible and focused on essential material, character development, and student competence enhancement.

According to Terry (1993), a plan is the determination of activities that must be carried out by a group to achieve specific goals. Learning, in essence, is an effort to facilitate students' learning, and instructional design is the structuring of that effort to stimulate learning behavior. Learning can be defined as an effort made by a teacher, facilitator, or learner to assist and facilitate the learning process. Furthermore, Smith and Ragan (in Setyosari & Sulton, 2003) describe learning as an activity focused on the specific things being studied by the learner.

The theoretical foundation for geography teachers' preparation in designing learning based on the Merdeka Curriculum includes five key perspectives. First, Constructivism Theory by Jean Piaget and Lev Vygotsky emphasizes that knowledge is actively built by learners through experience and social interaction. This aligns with the Merdeka Curriculum, which encourages student-centered, meaningful, and contextual learning. Geography teachers should design discovery-based and inquiry-oriented activities that allow students to observe, explore, and draw conclusions independently, while teachers act as facilitators who provide guidance and scaffolding as needed.

Second, the Contextual Teaching and Learning (CTL) theory stresses the importance of connecting learning materials to students' real-life experiences. In geography education, this means linking topics like natural disasters, urbanization, and climate change to local contexts. Teachers are expected to develop learning activities based on local issues and field studies, helping students relate classroom concepts to their daily

environment. CTL supports the principles of the Merdeka Curriculum by promoting creative, independent, and competence-based learning.

Third, Pedagogical Content Knowledge (PCK) by Lee S. Shulman highlights the integration of content mastery and teaching strategies. Teachers must not only understand geographical concepts but also be able to transform them into comprehensible learning experiences. Within the Merdeka Curriculum, geography teachers are encouraged to use innovative tools such as digital maps, satellite imagery, and interactive simulations. PCK enables teachers to adapt complex materials into engaging lessons that are relevant and easy for students to understand.

Fourth, the Humanistic Learning Theory by Carl Rogers and Abraham Maslow focuses on the holistic development of learners, acknowledging their emotional, psychological, and cognitive needs. Teachers should create a supportive and inclusive classroom environment that values individuality and fosters motivation, curiosity, and self-actualization. In alignment with the Merdeka Curriculum's differentiated learning approach, geography teachers are encouraged to respect students' diverse interests, abilities, and learning styles, promoting a more meaningful and learner-centered educational experience.

Lastly, the Systematic Instructional Design Model (ADDIE) provides a structured approach to developing effective and efficient learning plans. The model consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. For geography teachers, this means analyzing students' characteristics, designing appropriate learning activities, developing suitable materials such as maps or multimedia, implementing them in the classroom, and conducting continuous evaluation. The ADDIE model ensures that learning design under the Merdeka Curriculum is systematic, coherent, and adaptable to students' needs and learning outcomes.

METHOD

This study employs a qualitative research method with a descriptive qualitative approach because the researcher aims to describe a phenomenon as it truly occurs among people and observable behaviors (Bogdan and Taylor in Moleong, 1990). Descriptive research is defined as research that merely describes the condition or status of a phenomenon (Arikunto, 1998). One type of descriptive qualitative research is the case study method. A case study is included in descriptive analysis research, which focuses on a particular case to be carefully observed and thoroughly analyzed.

The location of this research is SMAN 1 Seputih Surabaya, located on Jl. Pendidikan, Gaya Baru VIII Village, Seputih Surabaya District, Central Lampung Regency, Lampung Province. This research was conducted during the 2025/2026 academic year. The informant in this research is the geography teacher at SMAN 1 Seputih Surabaya. The sampling technique used in this study is purposive sampling. According to Arikunto (2006), purposive sampling is a technique of selecting samples not based on randomness, area, or strata, but rather on certain considerations that focus on specific research objectives.

A variable is an attribute as well as an object that becomes the focal point of a study. A variable refers to anything determined by the researcher to be studied in order to obtain information about it, from which conclusions can then be drawn (Sugiyono, 2011). The variables in this research are preparation and obstacles. The focus of this research is to examine how Geography teachers prepare to design learning activities based on the Kurikulum Merdeka at SMAN 1 Seputih Surabaya. This study emphasizes teachers' understanding of the concepts and principles of the Kurikulum Merdeka, as well as their ability to develop teaching components such as teaching modules, learning objectives flow, and assessments that align with students' needs. In addition, this research also focuses on the challenges faced by teachers in the learning design process and the strategies they use to overcome them. Through this focus, the study aims to determine the extent of Geography teachers' readiness to implement the Kurikulum Merdeka effectively within the school environment.

The main instrument in this qualitative research is the researcher themselves, supported by observation, interview, and documentation guidelines. Data collection was carried out through several stages, including gaining access to informants, preparing materials, arranging schedules, creating interview and observation guides, and compiling the research report. The data collection methods included open observation to obtain data related to the implementation of the Kurikulum Merdeka in Geography learning at SMAN 1 Seputih Surabaya; in-depth interviews to explore information regarding teachers' preparation and challenges in

designing learning activities; and documentation of various school documents such as teaching materials, school profiles, and facilities and infrastructure to complement the research data.

After all the data were collected, the researcher conducted an analysis to process and interpret the data in order to answer the research questions. Data analysis was carried out using the interactive model of Miles and Huberman, which consists of three stages: data reduction, data display, and conclusion drawing. In the data reduction stage, the researcher selected and simplified the data obtained from interviews, observations, and documentation to focus on the research problems. The data display stage involved organizing the information systematically to facilitate the process of drawing conclusions. Finally, the researcher interpreted the data, identified relationships among the findings, and drew conclusions that describe the readiness of Geography teachers in designing learning based on the Kurikulum Merdeka, including the challenges they faced and their implications for curriculum implementation in the school.

RESULTS AND DISCUSSION

Administratively, SMAN 1 Seputih Surabaya is located in Gaya Baru Delapan Village, Seputih Surabaya District, Central Lampung Regency. SMAN 1 Seputih Surabaya was established on January 5, 1999, under Decree No. 0010/0/1999 as part of the government's effort to expand access to education for the community in Seputih Surabaya District. The school has undergone significant development in both infrastructure and curriculum implementation to achieve the goal of providing quality education for its students. On May 9, 2016, SMAN 1 Seputih Surabaya obtained an Operational Permit Decree No. 420/1258/01/D/2016, which affirmed its legal status as a state educational institution. The school holds an "A" accreditation and is committed to delivering education in accordance with national education standards.

The vision of SMAN 1 Seputih Surabaya is "To create a school community that is spiritually, intellectually, and emotionally intelligent, with a strong foundation in culture and environmental awareness." The school's mission is to foster appreciation and practice of religious teachings and national culture; to create a learning atmosphere that promotes character, discipline, and responsibility; to optimize innovative, creative, and technology-based learning processes; to encourage students to excel in both academic and non-academic fields; to develop students' potential according to their interests, talents, and abilities; to instill a sense of care for environmental sustainability; and to shape graduates who are capable of competing and adapting to the challenges of the global era.

SMAN 1 Seputih Surabaya has 35 male teachers and 36 female teachers, making a total of 71 teaching staff. The number of students in the first semester of the 2025/2026 academic year consists of 353 male students and 523 female students, bringing the total number of students to 876.

Table 1.
Facilities and Infrastructure of SMAN 1 Seputih Surabaya

No.	Type of Room	Quantity
1.	Classroom	25
2.	Library	1
3.	Laboratory	4
4.	Principal's Office	1
5.	Teachers' Room	1
6.	Prayer Room	1
7.	Health Unit Room (UKS)	1
8.	Toilets	18
9.	Storage Room	3
10.	Sports Area	1

No.	Type of Room	Quantity
11.	Administration Office	2
12.	Counseling Room	1
13.	Student Council Room (OSIS)	1
14.	Security Post	2
Total		62

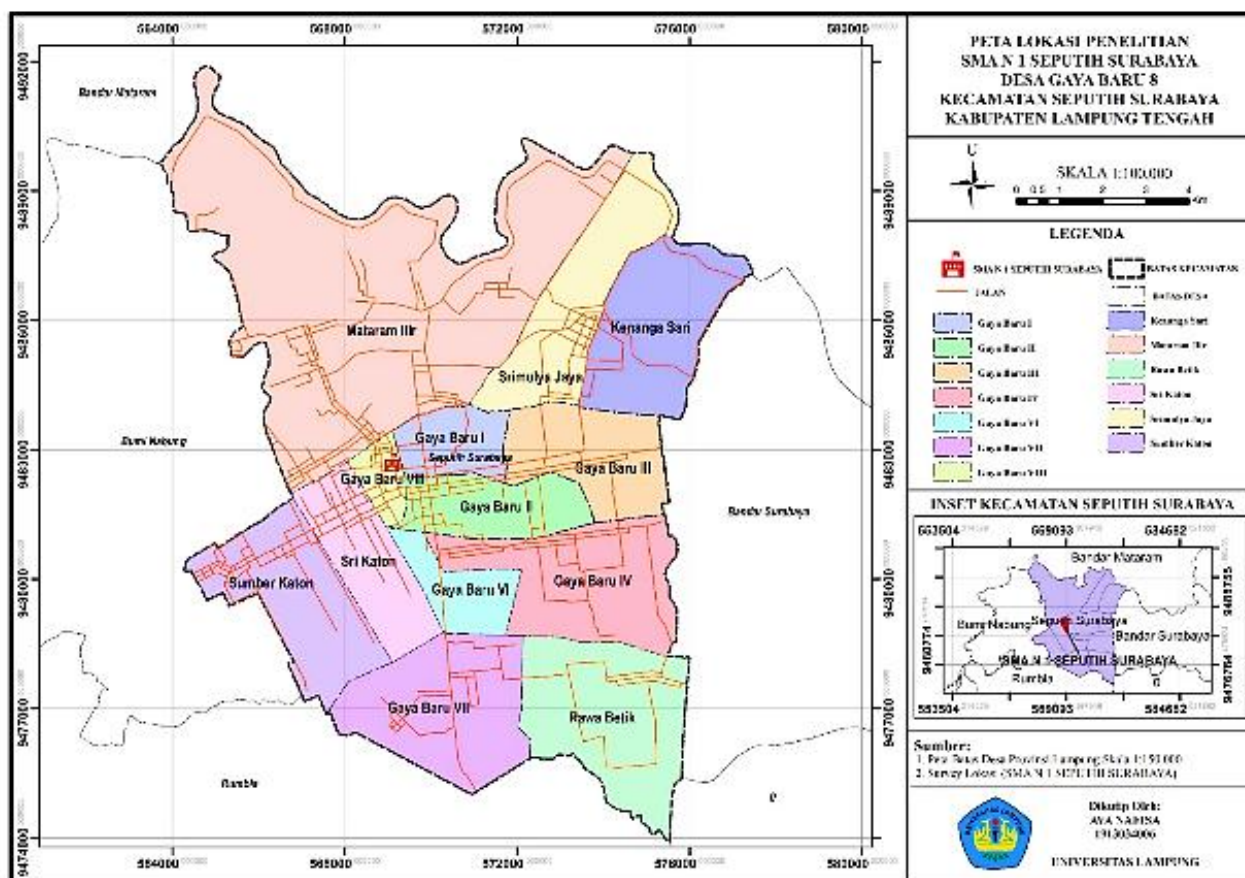


Figure 1. Map of The Research Location in 2025
(Source: Software GIS, 2025)

The interview was conducted on August 12, 2025. Early in the morning, the researcher made several preparations, including providing stationery, an interview guide containing 11 questions, a research permit letter, and a mobile phone camera for documentation. The researcher chose not to use a voice recorder to maintain the privacy and ethics of the informant. Instead, the researcher wrote down the informant's responses directly during the interview and took photographs as evidence of the activity.

At around 7:30 a.m. local time, the researcher departed for SMAN 1 Seputih Surabaya. Upon arrival, the researcher first reported to the administrative office and the principal to request permission to conduct the interview. The researcher was then directed to the teachers' room to meet with Mrs. Maria, the Geography teacher who served as the main informant in this study.

Before the interview began, the researcher introduced themselves and explained the purpose and objectives of the study titled “Geography Teacher Preparation in Designing Learning Based on the Kurikulum Merdeka at SMAN 1 Seputih Surabaya.” The researcher also emphasized that the interview would be conducted in a relaxed and open manner, and that the results would be used solely for academic purposes. After obtaining consent, the interview started around 9:00 a.m. in a conducive teachers’ room environment.

During the interview, the researcher carefully wrote down every response provided by the informant based on the prepared guidelines. The interview questions covered aspects such as teacher preparation, learning

implementation, encountered challenges, and the teacher's perspective on the Kurikulum Merdeka. The researcher ensured that all important information was recorded completely so that the interview results could be accurately processed during the data analysis stage.

The interview proceeded smoothly and with openness. The informant provided detailed and relevant answers aligned with the research focus. After the session concluded, the researcher expressed gratitude to the informant and the school administration for their permission and cooperation. The results of this activity became one of the main sources of data in analyzing the readiness of the Geography teacher in designing learning based on the Kurikulum Merdeka.

This study aims to understand how the Geography teacher at SMAN 1 Seputih Surabaya prepares, designs, and implements learning based on the Kurikulum Merdeka. Based on the interview with Mrs. Maria, it was found that she has a good understanding of the Kurikulum Merdeka concept, which emphasizes teacher flexibility and student independence in learning. This understanding was gained through school socialization activities and training facilitated by the Education Office, indicating a positive adaptation process toward the new policy.

Mrs. Maria actively participates in various training sessions, such as the In-House Training (IHT) on the Implementation of the Kurikulum Merdeka and Deep Learning, which play an important role in improving her competence. These trainings help her understand how to develop teaching materials, implement the Pancasila Student Profile, and apply contextual learning strategies. She believes that the Kurikulum Merdeka provides teachers with the freedom to adjust learning methods to make them more engaging and meaningful for students, although she still faces limitations in media and learning resources that suit the characteristics of Geography.

SMAN 1 Seputih Surabaya has implemented the Kurikulum Merdeka since 2021 as a Sekolah Penggerak (Model School), demonstrating strong institutional readiness. Support from the principal, supervisors, and the Education Office has also facilitated the implementation of this curriculum. In practice, Mrs. Maria regularly prepares learning tools at the beginning of each academic year, which include learning objectives, competency achievements, and Pancasila Student Profile reinforcement projects. She combines conventional and digital learning resources to create contextual and engaging learning experiences.

In designing lessons, Mrs. Maria follows a systematic process from planning, development, to evaluation. She aligns learning activities with students' characteristics and prepares relevant assessments to measure the achievement of learning goals. However, several challenges remain, such as limited facilities, the lack of specific Geography-based learning examples, and adaptation to new concepts. Despite these obstacles, her enthusiasm for innovation and continuous improvement in teaching quality remains strong.

Mrs. Maria hopes that the implementation of the Kurikulum Merdeka will be accompanied by continuous government support, including advanced training and adequate learning facilities. She believes that this curriculum has the potential to create more meaningful and contextual learning, foster student creativity, and increase awareness of geographical phenomena. Her reflective and optimistic attitude reflects the character of a Guru Penggerak (motivator teacher) who is adaptive to change.

Overall, the results of this study show that Mrs. Maria demonstrates a high level of readiness in implementing the Kurikulum Merdeka in terms of understanding, planning, and execution. She is able to integrate the principles of flexibility and differentiation into Geography learning. The success of this curriculum implementation depends not only on teacher competence but also on institutional support and sustainable training policies. Therefore, Mrs. Maria serves as a concrete example of a professional teacher capable of transforming educational policies into relevant and meaningful learning practices for students.

This study shows that Mrs. Maria, the Geography teacher at SMAN 1 Seputih Surabaya, has undertaken various forms of preparation in designing learning based on the principles of the Kurikulum Merdeka, which is student-centered. This curriculum positions the teacher as a facilitator who guides students to learn independently and contextually. Her preparation was carried out systematically through training, the development of teaching materials, analysis of student characteristics, the use of technology, and reflection on the teacher's role in the learning process.

The first stage involved participating in socialization and training sessions on the Kurikulum Merdeka organized by the school and the Provincial Education Office of Lampung. Through these activities, Mrs. Maria gained an understanding of differentiated learning, teaching flexibility, and the new curriculum structure such as Learning Outcomes (Capaian Pembelajaran or CP) and Learning Objectives (Tujuan Pembelajaran or TP). This training process reflects the application of Constructivist Theory, where teachers actively build understanding through learning experiences and professional interaction. Moreover, it aligns with Mulyasa's (2019) view that

professional teachers must continuously develop their competencies through training and scholarly forums to adapt to curriculum changes.

The next stage was the preparation of Modul Ajar (Teaching Modules) and learning materials tailored to students' characteristics. The module includes module identity, learning sequence, formative and summative assessments, as well as remedial and enrichment activities. In developing these materials, Mrs. Maria applies the Contextual Teaching and Learning (CTL) approach along with Project-Based Learning and Discovery Learning methods to encourage students to think critically and connect geographic concepts to real-life situations. This approach embodies contextual learning that fosters analytical and collaborative skills among students.

The following stage involved analyzing students' characteristics to align teaching strategies with their needs and potential. Mrs. Maria assessed students' prior knowledge, learning styles, and interests to make the learning process more relevant and meaningful. This step reflects the application of Shulman's Pedagogical Content Knowledge (PCK) theory, which emphasizes the importance of teachers' ability to integrate pedagogical knowledge with subject matter content. Through this approach, Geography material is not only presented theoretically but also connected to the school's surrounding environment, making it easier for students to understand.

In addition, Mrs. Maria utilizes various digital platforms such as Merdeka Mengajar and Google Classroom, and she actively collaborates with colleagues through the Teacher Learning Community (Komunitas Belajar Guru). These activities reflect the principles of Humanistic Learning and Collaborative Learning, where the learning process fosters holistic human potential and enhances professionalism through cooperation. This collaboration strengthens the quality of teaching materials and creates an open, supportive learning environment focused on the personal and professional development of both teachers and students.

The final stage is reflection on the teacher's role as a learning facilitator in a student-centered classroom. Through the application of the ADDIE learning design model (Analysis, Design, Development, Implementation, Evaluation), Mrs. Maria has been able to create a systematic and interactive learning process. She identifies students' learning needs, designs activity sequences, develops digital learning media, and implements methods that promote exploration and critical thinking. Therefore, all the steps she has taken reflect the professionalism of a Guru Penggerak (motivator teacher) who is adaptive, innovative, and committed to meaningful learning in line with the spirit of the Kurikulum Merdeka.

The implementation of the Kurikulum Merdeka provides teachers with wide flexibility in designing learning activities; however, the interview with Mrs. Maria revealed that several challenges still exist, both from internal and external factors. These obstacles include limited time, lack of learning resources, students' readiness, and insufficient technological support in schools. In general, these challenges arise because the transition process from the 2013 Curriculum to the Kurikulum Merdeka requires deep adaptation, both conceptually and practically.

The first obstacle is the limitation of time in preparing teaching modules and adapting to the new curriculum structure. Teachers are required to understand new terms and formats of lesson planning that differ from the previous curriculum, while the high administrative workload limits the time available to develop high-quality teaching materials. This condition aligns with the findings of Amin and Arifin (2023), who emphasize that teachers need continuous mentoring to optimally adapt to the philosophy and structure of the Kurikulum Merdeka.

The second challenge relates to the availability of learning resources and instructional media. Not all Geography materials have engaging contextual content for students, so teachers often have to develop their own media and learning resources based on the surrounding environment. Similar obstacles were also found by Sari and Lestari (2023), who highlighted limited infrastructure as a common barrier in implementing the Kurikulum Merdeka across educational levels. This condition indicates the need for better facilities and training in educational technology to help teachers innovate more effectively.

In addition, students' readiness is also a significant challenge. The Kurikulum Merdeka emphasizes independence and active participation, yet many students are still accustomed to traditional learning models. As a result, they tend to be passive when given freedom in project-based learning. This supports the findings of Rizkiyah (2023), who stated that the lack of familiarity with collaborative learning makes it difficult for students to adapt to new approaches. Teachers therefore need specific strategies to build students' motivation and learning independence to achieve the intended learning outcomes.

Another obstacle arises from the limited technological facilities and school infrastructure, such as projectors, internet connectivity, and interactive media, which are still inadequate. These limitations hinder the implementation of digital learning methods such as blended learning or project-based learning. As a solution, Mrs. Maria collaborates with other teachers, utilizes the Merdeka Mengajar platform, and uses the surrounding environment as a contextual learning resource. Through these efforts, the obstacles faced can be minimized by enhancing teacher competence, improving facility support, and strengthening teacher collaboration to ensure that the spirit of the Kurikulum Merdeka continues to be realized in classroom practice.

CONCLUSION

The Geography teacher at SMAN 1 Seputih Surabaya has made comprehensive preparations in implementing the Kurikulum Merdeka, including attending training and socialization sessions, developing learning tools such as the Deep Learning Plan (RPM) and teaching modules, and adapting the learning process to students' individual characteristics. The teacher effectively integrates technology and collaborates with colleagues to improve instructional quality, reflecting readiness to deliver flexible, contextual, and student-centered learning. Despite these efforts, several challenges remain, such as limited time for preparing teaching materials, difficulties in adapting to the new curriculum structure, insufficient learning resources and facilities, and students' low readiness for independent learning. However, these obstacles are addressed through continuous innovation, collaboration, and the utilization of educational technology, enabling the implementation of Kurikulum Merdeka to progress effectively within the school environment.

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