

Optimizing the Management of Facilities and Infrastructure in the Implementation of the Merdeka Curriculum

Intan Tresna Whibawa

PGMI Universitas Islam Nusantara Bandung, Indonesia

Email: intantresnawhibawa@gmail.com

Neneng Sulastri

Universitas Islam Nusantara Bandung, Indonesia

Email: nenengbandung2017@gmail.com

Correspondence E-mail (intantresnawhibawa@gmail.com)

Received: 2025-04-13; Accepted: 2025-05-16; Published: 2025-06-26

Abstrak

Implementasi Kurikulum Merdeka menuntut kesiapan sarana dan prasarana yang memadai. Dominasi metode pembelajaran konvensional dan keterbatasan fasilitas menjadi hambatan utama. Penelitian ini bertujuan untuk menganalisis model pengelolaan sarana yang efektif dalam mendukung Kurikulum Merdeka di Sekolah Cerdas Muthahari Bandung. Metode: Menggunakan pendekatan kualitatif dengan studi kasus, penelitian ini melibatkan kepala sekolah, pendidik, dan tenaga kependidikan. Data dikumpulkan melalui wawancara mendalam, observasi partisipatif, dan analisis dokumen. Analisis data dilakukan secara induktif. Hasil: Pengelolaan sarana di sekolah ini dilakukan secara sistematis melalui empat tahap: perencanaan partisipatif, pengadaan strategis, penggunaan terorganisir, dan pemeliharaan kolektif. Model ini terbukti efektif dalam menciptakan lingkungan belajar yang kondusif, meningkatkan kenyamanan siswa, dan memfasilitasi metode pembelajaran inovatif. Kesimpulan: Pengelolaan sarana yang optimal merupakan faktor krusial bagi keberhasilan Kurikulum Merdeka. Pendekatan manajemen yang terintegrasi dan melibatkan seluruh komponen sekolah memastikan sarana digunakan secara efisien dan berkelanjutan, mendukung tujuan pendidikan yang lebih fleksibel dan berpusat pada siswa.

Kata Kunci: Manajemen Sarana, Kurikulum Merdeka, Sekolah Dasar.

Abstract:

The implementation of the Merdeka Curriculum requires adequate facilities and infrastructure. The dominance of conventional learning methods and limited facilities are the main obstacles. This study aims to analyze effective facility management models that support the Merdeka Curriculum at Sekolah Cerdas Muthahari Bandung. Method: Using a qualitative approach with case studies, this

study involved the school principal, educators, and educational staff. Data were collected through in-depth interviews, participatory observation, and document analysis. Data analysis was conducted inductively. Results: Facility management at this school is carried out systematically through four stages: participatory planning, strategic procurement, organized use, and collective maintenance. This model has proven effective in creating a conducive learning environment, improving student comfort, and facilitating innovative learning methods. Conclusion: Optimal facility management is a crucial factor for the success of the Merdeka Curriculum. An integrated management approach that involves all components of the school ensures that facilities are used efficiently and sustainably, supporting more flexible and student-centered educational goals.

Keywords: Facility Management, Merdeka Curriculum, Elementary School.

Introduction

Education is the main pillar of a nation's progress. In an era of technological disruption and rapid social change, the education system is required to continuously adapt. This process is not only about updating the curriculum and teaching methods, but also about the readiness of supporting infrastructure, namely facilities and infrastructure. Facilities, as tools used directly in learning (e.g., projectors, interactive whiteboards, laboratory equipment), and infrastructure, as supporting facilities (e.g., classrooms, libraries, sports fields), play a crucial role in creating an optimal learning environment that is responsive to the needs of modern students. Effective management of these two elements is an absolute prerequisite for achieving holistic and relevant educational goals.

In the context of education in Indonesia, the strategic role of facilities and infrastructure has become increasingly prominent with the launch of the Merdeka Curriculum policy. This curriculum, introduced by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) in 2022, is the government's response to the learning challenges arising from the COVID-19 pandemic. The Merdeka Curriculum promotes flexible, student-centered learning oriented toward competency development (Farhana, 2022). These characteristics require more than just conventional classrooms; they require facilities that enable exploration, collaboration, and creativity. Therefore, the readiness of facilities and infrastructure is no longer just a complement, but a determining factor in the successful implementation of the curriculum.

The Merdeka Belajar and Merdeka Curriculum policies mark a paradigm shift from a rigid and uniform education system to a more adaptive and

personalized approach. This curriculum gives schools greater autonomy to design learning that is appropriate to the local context and the unique needs of their students. However, this transition is not without challenges. As stated by Panjaitan (2022), the implementation of this curriculum is still relatively new, and not all educational institutions, especially at the elementary level, fully understand and are ready to implement it. The government itself gives schools the option to choose between the 2013 Curriculum or the Merdeka Curriculum, a policy that reflects an awareness of the varying levels of readiness in the field.

This readiness encompasses not only pedagogical aspects and human resources (HR), but also facilities and infrastructure. The Merdeka Curriculum emphasizes differentiated, project-based, and flexible intracurricular learning, which directly requires facilities that can support these activities. For example, project-based learning requires dynamic collaboration spaces, access to technology, and adequate supporting equipment. Without the appropriate facilities, the ideal concept of the Merdeka Curriculum will be difficult to realize in practice. Previous studies have confirmed this challenge. Research by Suhartono (2022) found that human resources and technology constraints were the main obstacles to the implementation of the Merdeka Curriculum, while Zakirurahman and Musyarapah (2022) emphasized the importance of facilitative strategies—especially the provision of adequate facilities—as the key to success. This confirms that the management of facilities and infrastructure is a central issue that requires serious attention (Sulastri et al., 2024).

The management of educational facilities and infrastructure is not merely a matter of asset inventory, but rather a systematic management process. According to Permendiknas No. 57 of 2021, facilities and infrastructure standards must meet crucial principles, including being environmentally friendly, disability friendly, ensuring safety and health, and supporting effective, collaborative, creative, and active learning processes. These criteria are in line with the philosophy of the Merdeka Curriculum. Therefore, facility management must be viewed as an integrated cycle that includes planning, procurement, use, and maintenance (Anwar & Umam, 2020; Hanan et al., 2023).

Theoretically, optimal facility and infrastructure management is in line with the concept of strategic management in education. Matin (2018) emphasizes that facilities are an essential factor that greatly influences the success of an educational plan. Complete and high-quality facilities can create a comfortable and conducive learning environment, increase student

motivation, and facilitate the application of innovative teaching methods (Hanafi, 2018). In the context of the Merdeka Curriculum, where students are given the freedom to develop their competencies, the availability and accessibility of facilities are very important.

Good management ensures that each resource can be used efficiently to support differentiated and project-based learning. This study adopts a holistic approach to review resource management at Sekolah Cerdas Muthahari Bandung, an educational institution that is currently implementing the Merdeka Curriculum. The selection of this location is highly relevant because the school represents institutions that are actively facing the challenges of curriculum transition.

This study will explore how this school manages its facilities and infrastructure, and the extent to which this management supports the objectives of the Merdeka Curriculum. Although many studies have discussed the Merdeka Curriculum, studies that specifically focus on the optimization of facilities and infrastructure management at the micro level, such as in primary or secondary schools, are still limited.

Most of the literature emphasizes pedagogical aspects, curriculum evaluation, or human resource readiness. Therefore, this study aims to fill this gap. The focus of this study is to answer three main questions. What are the conditions of the facilities and infrastructure at Sekolah Cerdas Muthahari Bandung in supporting the implementation of the Merdeka Curriculum? How is an effective model for managing facilities and infrastructure implemented at Sekolah Cerdas Muthahari Bandung? How can ideal facilities to support the Merdeka Curriculum be identified, based on the experience at Sekolah Cerdas Muthahari Bandung?

Through these questions, this study aims to provide a detailed and practical overview of best practices in managing facilities and infrastructure to support the Merdeka Curriculum. The findings of this study will not only contribute to academic literature, but can also serve as a concrete guide for other educational institutions that are in the process of transition. It is hoped that the results of this study can be used as a reference to ensure that the readiness of facilities and infrastructure is in line with the Merdeka Curriculum's grand ambition to create more relevant and liberating education.

Method

This study uses a qualitative approach with a case study design. This approach was chosen to provide an in-depth and holistic picture of the

optimization of facilities and infrastructure management in the implementation of the Merdeka Curriculum at Sekolah Cerdas Muthahari Bandung. The study took place in June 2023.

The subjects of this study consisted of the principal, educators, and educational staff who were directly involved in facility management. Data were collected through method triangulation, namely: in-depth interviews to explore the perceptions and experiences of the subjects; participatory observation to record the dynamics of the use of facilities and infrastructure in the school environment; and documentation (including management plans, reports, and inventory data) as supporting secondary data.

The collected data was analyzed using inductive analysis techniques, in which the researcher reviewed specific findings in the field to then draw general conclusions. This technique allowed the researcher to identify patterns and strategies that emerged from actual practices at Muthahari Smart School. Data validity is ensured through source triangulation, which is comparing information from the principal, teachers, and documents to ensure consistency and accuracy of findings. Thus, this study is expected to present valid and accountable data.

Results and Discussion

1. Facilities as Support for the Implementation of the Merdeka Curriculum

The facilities and infrastructure at Sekolah Cerdas Muthahari Bandung are not only adequate, but also strategically prepared as the main foundation for the successful implementation of the Merdeka Curriculum. This finding is based on in-depth field observations, interviews with teachers and staff, and analysis of internal school documents. Rather than focusing solely on physical completeness, the school views facilities as dynamic pedagogical tools that directly influence the quality of teaching and learning interactions. Facilities such as interactive whiteboards, projectors, high-speed internet connections, and computer equipment in laboratories are not mere inventory, but an integral part of a learning ecosystem that supports differentiation and collaboration, which are at the core of the Merdeka Curriculum.

Complete and modern facilities have proven to be a major magnet that attracts public interest. In an interview, the principal said that many parents choose Sekolah Cerdas Muthahari because of the school's reputation for providing facilities that support innovative learning, such as classrooms

equipped with projectors and stable internet access. This confirms Matin's (2018) view that facilities are an essential factor that influences the competitiveness and success of an educational institution. In the context of the Merdeka Curriculum, where learning is no longer limited to textbooks, the availability of supporting facilities such as digital devices and collaboration spaces is very important.

Moreover, the excellent facilities at Sekolah Cerdas Muthahari contribute to the creation of a comfortable and conducive learning environment. Teachers report that the availability of facilities such as air conditioning in classrooms, ergonomic chairs and tables, and good hygiene make students feel at home and more focused. Hanafi (2018) also highlights how good facilities can increase comfort and foster students' enthusiasm for learning. In the context of the Merdeka Curriculum, this conducive atmosphere greatly supports project-based and collaborative learning, where students must feel safe and comfortable to experiment and interact with their friends.

In addition, the availability of adequate facilities also allows teachers to implement more innovative learning methods. The Merdeka Curriculum encourages teachers to design differentiated learning that suits the diverse needs and learning styles of students. For example, with a projector in each classroom, teachers can show educational videos, visual presentations, or use interactive software that would not be possible with conventional methods. A science teacher explained, "With a projector, I can show visual simulations of the water cycle or the solar system. This is much more interesting and easier for students to understand than just reading from a book." This shows that facilities not only facilitate but also enrich the learning experience.

The importance of facility management is also evident in how the school ensures that every facility is in prime condition. The principal, educators, and educational staff routinely conduct evaluations and maintenance. This is a proactive response to the demands of the Merdeka Curriculum, which requires facilities to be ready for use at all times. Thus, Sekolah Cerdas Muthahari has succeeded in creating a positive cycle: good facilities attract students and the community, well-managed facilities facilitate modern learning methods, which ultimately improve the overall quality of education. This situation shows that physical readiness is the first and most important step in welcoming an era of more independent and student-centered education.

2. Effective Facility Management Model at Sekolah Cerdas Muthahari

Facility management at Sekolah Cerdas Muthahari Bandung is an integrated system that involves all components of the school, from the leadership level to the students. This model focuses on efficiency and effectiveness to ensure that each facility optimally supports the implementation of the Merdeka Curriculum. This management system consists of four crucial stages: planning, procurement, use, and maintenance, which are interconnected and carried out continuously.

Participatory Facility Planning Facility planning at Muthahari Smart School is not only carried out by top management. Instead, this process is participatory and bottom-up. Teachers play a central role in identifying facility needs that are relevant to the Merdeka Curriculum. As the frontline in the classroom, teachers know firsthand what facilities are needed to implement differentiated and project-based learning. For example, if a teacher plans a science project that requires special tools, they will submit a needs report to the principal. This report is then recorded and followed up by the foundation. This process ensures that all procurement of facilities is based on real needs, not just estimates. This planning includes the procurement of new items such as projectors for each classroom, laptops for computer labs, and improved internet access. This approach is in line with a strategic management perspective that emphasizes the importance of careful planning and responsiveness to field needs.

Strategic Procurement of Facilities The procurement stage at Muthahari Smart School is carried out strategically. Although there is assistance from the government, the school realizes that it is not sufficient to meet all the demands of the Merdeka Curriculum. Therefore, the school independently procures facilities through several means. The main method is through the allocation of funds from the foundation, which demonstrates the strong commitment of the leadership to support innovative learning. In addition, the school is also open to receiving donations or grants from alumni or external organizations. This flexibility allows the school to quickly obtain the necessary facilities without having to wait for government assistance, which often takes a long time. This responsive procurement ensures that when teachers need facilities for specific projects or activities, they are immediately available.

Organized Use of Resources The use of resources at the school is very well managed by the foundation director and the principal. To avoid

scheduling conflicts, they carefully organize the schedule for using the facilities. Special rooms such as computer labs, auditoriums, or sports fields have clear schedules and are prioritized for activities that support the curriculum, both intracurricular and extracurricular. This regular schedule ensures that facilities can be used efficiently by all parties. In addition, the use of facilities is also regulated by the principle of responsibility. Teachers are fully responsible for the use of facilities in their classrooms, while students are also taught to use each facility with care. Herawati (2020) emphasizes that effective use of facilities is characterized by accurate scheduling and clear assignment of responsibilities.

Collective Facility Maintenance One of the most prominent aspects of facility management at Muthahari Smart School is the collective approach to maintenance. Maintenance is not only the responsibility of the principal or staff, but also involves the entire school community, including students. In an interview, the principal explained that students are routinely given advice during ceremonies or in class to maintain cleanliness and not damage school facilities. This approach is in line with Rindy's (2021) view that good facility maintenance can extend the useful life of facilities and prevent damage. Moreover, involving students in this process fosters a sense of ownership and responsibility. Students no longer see the facilities as belonging to the school, but as “ours,” which must be maintained. This is a very effective pedagogical step in shaping the character of students to be responsible and appreciate public assets.

The integrated facility management model at Sekolah Cerdas Muthahari Bandung shows that the readiness to implement the Merdeka Curriculum does not only depend on the curriculum itself, but also on strong supporting management. With responsive planning, strategic procurement, organized use, and collective maintenance, this school has succeeded in creating a solid foundation for realizing the objectives of the Merdeka Curriculum.

3. Ideal Facilities for the Implementation of the Merdeka Curriculum

Based on the practices at Muthahari Smart School Bandung, the concept of ideal facilities for the implementation of the Merdeka Curriculum is not only measured by physical completeness but also by their ability to support flexible, innovative, and student-centered learning objectives.

The school strives to meet the National Education Standards, which are the main reference in the development of facilities. However, more than just meeting the standards, Sekolah Cerdas Muthahari proactively adapts its facilities to suit the demands of the Merdeka Curriculum.

The ideal facilities in this context are those that support differentiated learning. The Merdeka Curriculum requires teachers to cater to students with diverse learning styles. Therefore, the ideal classroom consists not only of desks and chairs, but also facilities that support visual learning (projectors, interactive whiteboards), auditory learning (good audio systems), and kinesthetic learning (flexible spaces for group activities and practical work). Sekolah Cerdas Muthahari has taken significant steps in providing these facilities, enabling teachers to design lessons that are more engaging and relevant to each student.

In addition, ideal facilities must also facilitate project-based learning. The Merdeka Curriculum encourages students to engage in collaborative projects that combine various subjects. Therefore, the availability of special rooms such as computer labs, art studios, and comfortable libraries is crucial. Computer labs with fast internet allow students to conduct research, create presentations, and develop digital skills. Libraries equipped with diverse book collections and comfortable reading rooms are ideal places for students to explore and conduct independent research.

Practices at Muthahari Smart School also show that facility management is an integral part of ideal facilities themselves. A school may have sophisticated facilities, but if they are poorly managed, they will not function optimally. At Sekolah Cerdas Muthahari, a systematic management process (planning, procurement, use, and maintenance) ensures that each facility can be used to its full potential. This is in line with Novita's (2019) view that good facility management is part of the success of an educational institution. With clear management policies that are communicated to all staff, the school creates a culture that values and optimizes every asset.

Finally, ideal facilities in the Merdeka Curriculum must be able to support character building and 21st-century skills. This means that these facilities must enable students to not only master knowledge but also develop creativity, collaboration, and critical thinking skills. For example, classrooms that can be easily rearranged facilitate group discussions. The availability of sports and art equipment supports the development of students' physical and aesthetic potential. Thus, Sekolah Cerdas Muthahari not only provides facilities but also uses them as instruments to achieve broader educational goals, namely to produce graduates who are not only academically intelligent but also skilled and have good character.

Conclusion

Based on the research findings, it was concluded that optimal facility management is a crucial factor for the successful implementation of the Merdeka Curriculum at Sekolah Cerdas Muthahari Bandung. A systematic management model—including participatory planning, strategic procurement, organized use, and collective maintenance—has succeeded in creating an adaptive and conducive learning environment. This enables the school to exceed minimum standards and truly embody the essence of the flexible, student-centered Merdeka Curriculum. The involvement of the entire school community, including students, in the resource management process not only improves efficiency but also fosters a sense of ownership and responsibility.

However, this study has several limitations that need to be noted. First, this case study focuses on only one school, so the findings cannot be generalized to other educational institutions with different characteristics and resources. Second, this study only provides an overview of a specific period of time, so it cannot fully capture the dynamics of facility management in the long term. Future studies could explore the effectiveness of facility management in various types of schools and over a longer period of time. Quantitative research could also be conducted to measure the impact of facility management on student learning outcomes numerically.

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