

Implementation of Facilities and Infrastructure Management in Early Childhood Learning at RA Al Bani Amir, Tangerang City, Banten

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ABSTRACT

This study aimed to describe the implementation of facilities and infrastructure management in supporting children's learning processes at RA Al Bani Amir, Tangerang City, Banten. The research employed a qualitative approach using a descriptive method to obtain an in-depth understanding of the management of educational facilities and infrastructure implemented at the institution. The study was conducted during the second semester of the 2025/2026 academic year, involving the principal, teachers, and facilities and infrastructure manager as research participants. Data were collected through observations, interviews, documentation, and field notes. Data trustworthiness was ensured through triangulation techniques, member checking, prolonged engagement, persistent observation, negative case analysis, and peer debriefing. Data analysis was carried out in three stages: data reduction, data display, and conclusion drawing. The findings revealed that the implementation of facilities and

infrastructure management encompassed planning, procurement, utilization, maintenance, inventory management, and evaluation. However, its implementation still encountered several challenges, resulting in suboptimal performance, particularly in the aspects of maintenance and facility organization. Nevertheless, the available facilities and infrastructure contributed positively to supporting children's learning by enhancing comfort, motivation, and engagement during learning activities. Therefore, facilities and infrastructure management plays a crucial role in improving the quality of early childhood education and should be managed more effectively, systematically, and sustainably.

Introduction

Early Childhood Education (ECE) is an educational level that plays a strategic role in optimizing children's growth and development during the golden age. During this period, children experience rapid development in cognitive, social, emotional, language, and physical domains, requiring appropriate stimulation through a supportive learning environment. One of the factors influencing the success of early childhood learning is the availability and effective management of adequate educational facilities and infrastructure.

According to the Indonesian Ministry of Education, Culture, Research, and Technology (Kemendikbudristek, 2022), **facilities** refer to various tools, instructional media, and equipment directly utilized in the learning process, whereas **infrastructure** encompasses physical

facilities that support educational activities, including classrooms, sanitation facilities, playgrounds, and other supporting infrastructure. The availability of adequate facilities and infrastructure creates a safe, comfortable, and enjoyable learning environment, thereby enhancing children's participation and learning motivation. Therefore, effective facilities and infrastructure management is required through systematic planning, procurement, utilization, maintenance, inventory management, and evaluation to ensure that all available resources are optimally utilized in supporting the learning process.

Facilities and infrastructure management constitutes one of the essential components of quality educational administration. Mustari (2015), as cited in Sugi Rahayu et al. (2022), explains that educational facilities and infrastructure management encompasses the entire process of procuring, utilizing, and supervising educational resources to support the implementation of high-quality learning. Effective management creates a conducive learning environment that optimally supports children's development. Conversely, ineffective management may result in underutilization of available facilities, thereby negatively affecting the quality of learning. Within the context of early childhood education, facilities and infrastructure management becomes increasingly important because early childhood learning emphasizes play-based learning, environmental exploration, and the use of diverse instructional media to stimulate children's holistic development.

RA Al Bani Amir, located in Tangerang City, is an Islamic-based

early childhood education institution serving children aged 4–6 years. Preliminary observations revealed that the management of facilities and infrastructure at the institution has not yet fully met ideal conditions. Although learning facilities are available, their arrangement remains suboptimal, as several learning media and educational play equipment are placed within the same area without being organized according to their functions. Furthermore, the number of available learning media is still limited, requiring children to use them alternately. From the perspective of infrastructure, the school does not yet have designated spaces to support specific learning activities, such as a reading corner, an art area, or an outdoor exploration space that could enrich children's learning experiences. In addition, facility maintenance has not been conducted on a scheduled basis, with repairs generally carried out only after equipment has sustained considerable damage. These conditions indicate a discrepancy between the current situation and the ideal management of educational facilities and infrastructure, which should more effectively support the learning process.

These findings are consistent with previous studies emphasizing the importance of facilities and infrastructure management in improving learning quality. Sugi Rahayu et al. (2022), employing a qualitative approach, found that facilities and infrastructure management enhanced learning effectiveness. However, their study did not comprehensively examine all management functions, particularly evaluation and inventory management.

Similarly, Fauziah and Suyadi (2021) found that learning facilities improved children's learning motivation. Nevertheless, their study primarily focused on the influence of facilities on learners rather than on the management process itself. Nurhayati et al. (2020) highlighted the relationship between the learning environment and children's development but did not explain how educational institutions manage their facilities and infrastructure. Meanwhile, Rahman and Kurniawan (2019) discussed the importance of facility maintenance but did not provide a comprehensive description of facilities and infrastructure management practices. Wulandari et al. (2023) also demonstrated that effective facilities and infrastructure governance creates a conducive learning environment; however, their research was conducted in a different institutional context and therefore did not reflect the conditions of Islamic-based early childhood education institutions with limited facilities.

Based on the review of previous studies, it can be concluded that most research has focused either on the influence of facilities and infrastructure availability on learning quality or on only one specific management function, such as procurement or maintenance. Moreover, these studies were generally conducted in educational institutions at large and have not provided a comprehensive description of the implementation of all facilities and infrastructure management functions within Islamic-based early childhood education institutions.

Furthermore, no previous study has comprehensively examined

the integrated processes of planning, procurement, utilization, maintenance, inventory management, and evaluation of educational facilities and infrastructure while simultaneously investigating their role in supporting children's learning within institutions experiencing facility limitations.

Therefore, this study was conducted to address this research gap by comprehensively analyzing the implementation of facilities and infrastructure management at RA Al Bani Amir, Tangerang City. This research not only describes each management function but also identifies the challenges encountered and the optimization strategies implemented to support early childhood learning. Consequently, it provides an empirical contribution to the development of facilities and infrastructure management practices in Islamic-based early childhood education institutions.

Method

This study employed a qualitative approach using a descriptive method to gain an in-depth understanding of the implementation of facilities and infrastructure management in supporting children's learning at RA Al Bani Amir, Tangerang City, Banten. A qualitative approach was selected because it enables researchers to obtain a comprehensive understanding of the phenomenon under investigation within its natural setting (Creswell, 2018). The study was conducted during the second semester of the 2025/2026 academic year. The research informants consisted of the principal, two classroom teachers,

and one school operator, who were selected using a purposive sampling technique.

The research data comprised both primary and secondary data. Primary data were obtained through observations, interviews, and field notes, whereas secondary data were collected from school documents, including inventory records, photographs of facilities, and other supporting documents. The research instruments consisted of observation guidelines, interview guidelines, and documentation protocols developed based on the indicators of facilities and infrastructure management.

The research data consisted of primary and secondary sources. Primary data were collected through observations, interviews, and field notes, while secondary data were obtained from school documents such as inventory records, photographs of facilities, and other supporting documentation. The research instruments included observation guidelines, interview guidelines, and documentation protocols developed based on the indicators of facilities and infrastructure management, namely planning, procurement, utilization, maintenance, inventory management, and evaluation. Data trustworthiness was ensured through source triangulation, technique triangulation, and member checking.

The research process began with a preliminary study, followed by instrument development, field data collection, and data analysis. Data were analyzed through the stages of data reduction, data display, and

conclusion drawing, as proposed by Miles, Huberman, and Saldaña (2014). The credibility of the findings was enhanced through source triangulation, technique triangulation, and member checking (Moleong, 2021).

Results and Discussion

The findings revealed that the implementation of facilities and infrastructure management at RA Al Bani Amir has been carried out through the stages of planning, procurement, utilization, maintenance, inventory management, and evaluation. Based on the interview with the principal, facilities and infrastructure planning is conducted at the beginning of each academic year by considering instructional needs and the condition of existing facilities. Teachers are actively involved in the needs identification process to ensure that facility procurement is aligned with early childhood learning activities.

The procurement of facilities and infrastructure is carried out gradually in accordance with the institution's budget capacity. Observational findings indicate that the available facilities include classrooms, educational play equipment, instructional media, children's tables and chairs, and a playground. Nevertheless, several facilities remain limited, requiring children to use them alternately. This condition indicates that the availability of facilities and infrastructure has not yet fully met the instructional needs in an optimal manner.

Based on the observations, the condition of the facilities and infrastructure at RA Al Bani Amir consists of several aspects, including

classrooms, instructional media, educational play equipment, playgrounds, reading corners, and facility maintenance. The details are presented in **Table 1**.

Table 1. Condition of Facilities and Infrastructure at RA Al Bani Amir

Aspect	Condition
Classroom	Fairly good and actively used
Instructional media	Available but limited
Educational play equipment	Available and utilized during learning activities
Playground	Available but limited
Reading corner	Not yet available as a designated area
Facility maintenance	Not conducted on a scheduled basis

Based on **Table 1**, it can be seen that most of the facilities and infrastructure at RA Al Bani Amir are in reasonably good condition and are utilized to support the learning process. However, several limitations remain, including insufficient instructional media, a limited playground area, the absence of a dedicated reading corner, and the lack of scheduled facility maintenance.



Figure 1. Limited Facilities at RA Al Bani Amir

The findings also indicate that the utilization of facilities and infrastructure has supported the learning process. Teachers make use of the available instructional media to help children understand learning materials through play-based learning activities. Based on the interview findings, the use of educational play equipment has increased children's engagement and enthusiasm during classroom activities. These findings demonstrate that facilities and infrastructure play a significant role in creating more engaging and interactive learning experiences.

Nevertheless, the maintenance aspect remains one of the major challenges in implementing facilities and infrastructure management. Observational findings revealed that several facilities do not receive regular maintenance, and repairs are generally undertaken only after the facilities have sustained considerable damage. In addition, budget constraints constitute the primary factor limiting both the procurement of new facilities and the maintenance of existing ones. This situation has affected the optimal utilization of facilities and infrastructure in

supporting the learning process.

The findings demonstrate that the implementation of facilities and infrastructure management at RA Al Bani Amir has encompassed the stages of planning, procurement, utilization, maintenance, inventory management, and evaluation. The implementation of these management functions indicates that the institution has made systematic efforts to manage its educational facilities and infrastructure in support of early childhood learning. These findings are consistent with Bafadal (2018), who argued that the success of facilities and infrastructure management depends on the comprehensive implementation of management functions, beginning with planning and extending through evaluation. The similarity between the present study and this theoretical perspective lies in the implementation of each management function, although not all have been carried out optimally.

The findings are also consistent with the study conducted by Sugi Rahayu et al. (2022), which concluded that systematic facilities and infrastructure management enhances learning effectiveness. The similarity between the two studies lies in the implementation of planning and procurement processes based on instructional needs. However, the present study found that procurement and maintenance activities continue to be constrained by limited financial resources, preventing the institution from fulfilling all facilities and infrastructure requirements. This finding suggests that the effectiveness of facilities and infrastructure management is influenced not only by management

processes but also by the availability of institutional resources.

Furthermore, the present findings support those of Fauziah and Suyadi (2021), who reported that adequate learning facilities enhance children's motivation and engagement in learning activities. Likewise, this study found that the use of instructional media and educational play equipment contributes to creating more engaging learning experiences, encouraging children to participate more actively in classroom activities. These similarities indicate that the availability of adequate facilities and infrastructure plays a crucial role in establishing a conducive learning environment for early childhood education.

On the other hand, this study revealed that facility maintenance has not been implemented on a regular schedule, resulting in repairs being conducted only after facilities have suffered significant damage. This finding differs from the view of Rahman and Kurniawan (2019), who emphasized that regular maintenance is essential for preserving the quality of educational facilities. This discrepancy suggests that the institution's limited budget remains a significant obstacle to optimizing all functions of facilities and infrastructure management.

Overall, the findings reinforce the study conducted by Wulandari et al. (2023), which concluded that effective facilities and infrastructure governance creates a safe, comfortable, and conducive learning environment for learners. However, the present study provides a more specific description of the implementation of facilities and infrastructure management within an Islamic-based early childhood

education institution facing limited facilities. Therefore, this study contributes to addressing the existing research gap by providing a comprehensive analysis of facilities and infrastructure management, particularly regarding the functions of planning, procurement, utilization, maintenance, inventory management, and evaluation in supporting early childhood learning.

Conclusion

Based on the findings of this study, the implementation of facilities and infrastructure management at RA Al Bani Amir, Tangerang City, has been carried out through the stages of planning, procurement, utilization, maintenance, inventory management, and evaluation. Overall, the implementation of facilities and infrastructure management has supported the early childhood learning process, although several challenges remain, particularly regarding facility maintenance and the limited availability of facilities due to institutional budget constraints. Therefore, facilities and infrastructure management should be implemented in a more systematic, sustainable, and continuous manner to support the creation of a safe, comfortable, and effective learning environment for young children.

This study implies that strengthening facilities and infrastructure management, particularly in the areas of maintenance, inventory management, and evaluation, should become a priority for early childhood education administrators in their efforts to improve the quality of educational services. Furthermore, the findings may serve as

a valuable reference for school principals and policymakers in designing more effective facilities and infrastructure management programs that are responsive to the specific needs of their institutions. Future research is recommended to investigate the implementation of facilities and infrastructure management across a broader range of early childhood education institutions with diverse characteristics in order to obtain a more comprehensive understanding of the factors influencing the effectiveness of facilities and infrastructure management in supporting early childhood learning.

References

- Amal Pendidikan, J., Sugi Rahayu, T., Khosiah, S., Atikah, C., Studi Pendidikan Guru Pendidikan Anak Usia Dini, P., Sultan Ageng Tirtayasa Jl Raya Palka NoKm, U., Cipocok Jaya, K., & Serang, K. (2022). Implementasi Manajemen Sarana Prasarana Dalam Menunjang Mutu Pembelajaran Di TK (*Implementation of Infrastructure Management in Supporting Learning Quality in Kindergarten*).
- Andrean, R., Latif, M. D., Emilia, R., Nada, A. Q., Rohmaniah, A., & Rohman, H. N. (2025). Implementasi Manajemen Sarana dan Prasarana untuk Meningkatkan Minat Belajar di Sekolah Dasar. *Jurnal Pendidikan Sosial dan Humaniora*, 4(3), 6000-6011.
- Astuti, M., Suryana, I., Yuke, D. P., Aji Dara, D. S., Masitho, M., Hartanti, A., & Pratiwi, A. (2023). *Understanding and Scope of Management of Educational Facilities and Infrastructure*. *Sustainable Jurnal Kajian Mutu Pendidikan*, 6(2), 549–555.
- Azzahra, S. (2024). Optimalisasi pengelolaan sarana dan prasarana dalam meningkatkan kualitas pembelajaran siswa. *Al-Faizi: Jurnal Politik, Hukum Dan Bisnis*, 2(2), 152-165.
- Daryono, D., Hery Soegiharto, A. F., Wardana, F. T., Laela Nursaumi, Aprilio, A. D. A., Anjarini, E., & Nugroho, A. S. (2024). Penguatan Lingkungan Pembelajaran di Taman Kanak-Kanak dan penguatan citra

- kelembagaan di Taman Pendidikan Anak Usia Dini Terpadu Putera Zaman. *BEMAS: Jurnal Bermasyarakat*, 5(1), 103–110.
- Fauzan Wakila, Y. (2021). Konsep dan Fungsi Manajemen Pendidikan. *Equivalent : Jurnal Ilmiah Sosial Teknologi*, 3(1), 49–62.
- Fauzi, M. I. F. (2020). Manajemen sarana dan prasarana pendidikan. *Al-Rabwah*, 14(02), 90-115.
- Febriani, C., Haniman, D., Misweniati, L., Studi Pendidikan Guru Sekolah Dasar, P., Keguruan dan Ilmu Pendidikan, F., & Tuanku Tambusai, P. (t.t.). Pengaruh Lingkungan Belajar terhadap Perkembangan Sosial dan Emosional Anak di Sekolah Dasar.
- Kamiliya, K. D. (2025). Pengelolaan Sarana Dan Prasarana Dalam Menunjang Motivasi Belajar Anak Usia Taman Kanak-Kanak (Studi Deskriptif Kualitatif di TKIT Bina Bangsa Islamic School Serang, Banten) (*Doctoral dissertation*, Universitas Sultan Ageng Tirtayasa).
- Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi (Kemendikbudristek) no 22 tahun 2023.
- Miles, M. B., & Huberman, A. M. (1992). *Qualitative Data analysis: A Sourcebook of New Method* (Terjemahan).
- Muhammad Abdurrohman, Insanul Mizan, & Dwi Noviani. (2023). Administrasi Sarana Dan Prasarana Pendidikan. 1 (2), 561–576.
- Nur Azizah, A., Kharisma Paramitha, A., Lestari Fatimah, B., Fortuna Prasetyo, B., Nurrahma Puspita Dewi, F., Renata Putri, F., & Nur Aini, F. (2022). *Gap Levels of Early Childhood Education Facilities and Infrastructure As Obstacles in Establishing Early Childhood Education Programs in Indonesia. Early Childhood Education and Development Journal*, 4(2), 56-65.
- Nursidik, I., Maulani, M. Y., Iskandar, S., & Irianto, D. M. (2024). Pentingnya Lingkungan Belajar Fisik Terhadap Hasil Belajar Peserta Didik Di Sekolah Dasar. *Jurnal Edukasi Citra Olahraga*, 4(3), 175–183.
- Permendikbud Nomor 137 Tahun 2014 tentang Standar Nasional PAUD
- Priyanti, E., & Haryanto, H. (2023). Pemanfaatan Teknologi Informasi dan Komunikasi dalam Menunjang Pembelajaran di PAUD. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 7(4), 4585–4598.
- Roopnarine, J. L., & Johnson, J. E. (Eds.). (2019). *Approaches to early childhood education (6th ed.)*. Pearson.

- Santrock, J. W. (2019). *Child development: Concepts and applications (15th ed.)*. McGraw-Hill Education.
- Santrock, J. W. (2022). *Life-span development (18th ed.)*. McGraw-Hill Education.
- Sari, R. P., & Munastiwi, E. (2025). Manajemen Sarana dan Prasarana di TK Al Fatah. Dalam *Indonesian Journal of Early Childhood: Jurnal Dunia Anak Usia Dini* (Vol. 7).
- Siddika, M. A. (2025). *Health and safety protocols in early childhood education: A systematic review*. *Global Mainstream Journal of Health, Medicine & Hospitality Management*, 4(1), 1-18.
- Srifariyati, S., Susianti, O. M., & Lukman, L. (2024). Manajemen Sarana Prasarana dalam Menunjang Proses Pembelajaran: Infrastructure Management in Supporting the Learning Process. *Thawalib: Jurnal Kependidikan Islam*, 5(1), 183-194.
- Suhardi, Rachman, M., Salsabila, N., Syahrani, & Febriyanti, D. (2024). *Manajemen sarana dan prasarana PAUD untuk mendukung proses pembelajaran*. *Jurnal Pendidikan Tambusai*, 8(2), 31077–31087
- Suranto, D. I., Annur, S., Ibrahim, & Afif. (2022). Pentingnya Manajemen Sarana Dan Prasarana Dalam Meningkatkan Mutu Pendidikan. *Jurnal Kiprah Pendidikan*, 1(2), 59–66.
- Susanti, U. V., Ningsih, S. E., & Khoirunnisa, K. (2025). Manajemen Sarana Dan Prasarana Dalam Menunjang Lingkungan Belajar PAUD. *Edusiana: Jurnal Ilmu Pendidikan*, 3(1), 66-73.
- Syukri, M., Azmi, F., Berutu, R., & Al-Fattah, M. R. (2023). Manajemen Sarana Prasarana Dalam Mencapai Tujuan Pendidikan Anak Usia Dini. *Jurnal Ilmiah Wahana Pendidikan*, 9(6), 300-306.
- Ulfi Ainun Nurfazriyatul Jannah, Shafa Amelia Sandy, Muhammad Fajri Ramadan, & Muhammad Hasan Basari. (2025). Konsep Dasar Manajemen Pendidikan. *JPNM Jurnal Pustaka Nusantara Multidisiplin*, 3(4).
- Wulandari, A., & Wulandari, R. (2023). Manajemen sarana dan prasarana dalam proses meningkatkan kemampuan belajar anak usia dini. *SIGNIFICANT: Journal Of Research And Multidisciplinary*, 2(01), 36-44.
- Yahya, D. P., Rahman, K. A. R., & Mulyadi, M. (2023). *Management Of*

Educational Facilities and Infrastructure: Literature Review On Educational Management. Indonesian Journal of Educational Development (IJED), 4(3), 380–387.