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OPTIMIZATION OF FACILITIES AND INFRASTRUCTURE MANAGEMENT IN EARLY CHILDHOOD EDUCATION

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ABSTRACT
The purpose of this article is to describe how learning facilities and infrastructure are governed so that an educative environment for young learners can be established at Buah Hati Kindergarten (Bhakti Kartini Education Foundation). Five areas were reviewed: how needs are planned, how items are procured, how they are put to use, how they are cared for, and how they are appraised. A descriptive qualitative design was adopted, with material gathered through an interview with the school principal as key informant, observation of the condition and use of the centre's provision, and study of the documents recording it, then processed by condensing the material, displaying it, and inferring conclusions. Two areas, namely planning and day-to-day use, were found to operate well and to underpin the learning of young children effectively. Procurement, upkeep, and appraisal, by contrast, reached only an adequate level, held back by tight resources and by the lack of a formal appraisal instrument. The article concludes that the governance of facilities and infrastructure matters considerably in building an educative learning environment, yet several areas still require strengthening before such management can be called optimal.

Keywords: management of facilities and infrastructure; educational learning environment; early childhood education; descriptive qualitative study

ABSTRAK
Tujuan artikel ini adalah untuk menjelaskan bagaimana fasilitas dan infrastruktur pembelajaran dikelola sehingga lingkungan pendidikan bagi anak usia dini dapat dibangun di Taman Kanak-kanak Buah Hati (Yayasan Pendidikan Bhakti Kartini). Lima area ditinjau: bagaimana kebutuhan direncanakan, bagaimana barang-barang diperoleh, bagaimana barang-barang tersebut digunakan, bagaimana barang-barang tersebut dirawat, dan bagaimana barang-barang tersebut dinilai. Desain kualitatif deskriptif diadopsi, dengan materi yang dikumpulkan melalui wawancara dengan kepala sekolah sebagai informan kunci, observasi kondisi dan penggunaan fasilitas pusat, dan studi dokumen yang mencatatnya, kemudian diproses dengan meringkas materi, menampilkannya, dan menarik kesimpulan. Dua area, yaitu perencanaan dan penggunaan sehari-hari, ditemukan beroperasi dengan baik dan mendukung pembelajaran anak usia dini secara efektif. Pengadaan, pemeliharaan, dan penilaian, sebaliknya, hanya mencapai tingkat yang memadai, terhambat oleh keterbatasan sumber daya dan kurangnya instrumen penilaian formal. Artikel ini menyimpulkan bahwa tata kelola fasilitas dan infrastruktur sangat penting dalam membangun lingkungan belajar yang edukatif, namun beberapa area masih perlu diperkuat sebelum manajemen tersebut dapat disebut optimal.

Kata kunci: manajemen fasilitas dan infrastruktur; lingkungan belajar edukatif; pendidikan anak usia dini; studi kualitatif deskriptif

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INTRODUCTION

The years of early childhood constitute one of the most decisive phases within a child's overall developmental journey. A young child is a person passing through an extraordinarily swift phase of growth and maturation, a period frequently described as a developmental leap(Wati et al., 2025). Such phases are distinctive: change unfolds step by step, without interruption, and continues across the lifespan, appearing as growth, development, maturation, and refinement in both bodily and psychological dimensions(Widadiyah, Qorina, n.d.). Education at this age serves as an indispensable base for a learner's later development, since it is here that the rudiments of intelligence, character, and social capability first take shape(Kalsum et al., 2023). Kindergartens, being formal institutions, carry substantial responsibility for supplying a supportive, secure, and stimulating setting that answers the developmental requirements of children(Mahmuda, 2024). Attaining such aims makes both the presence and the standard of educational facilities and infrastructure a decisive matter that cannot be set aside(Marwan et al., 2024). The term facilities covers educational play equipment, instructional media, and classroom furnishings, whereas infrastructure refers to buildings, classrooms, play areas, and other supporting provisions(Agustriani et al., 2022).

Beyond merely backing up the learning process, sufficient educational facilities and infrastructure also weigh heavily in shaping an enjoyable learning experience during the early years. When the physical setting is orderly, secure, and furnished with an assortment of play equipment, children are encouraged to take an active part in exploratory activity(Ihsan et al., 2025). Children of kindergarten age require stimulation that engages several senses at once, and this is delivered through suitable learning facilities. Governing those facilities therefore becomes a strategic matter that has to be planned in an orderly fashion, from procurement through utilization to upkeep(Riyadi, 2025). Within early childhood education such governance takes on particular characteristics, since it has to be tuned to the developmental needs of the child. Provisions such as educational game tools (APE), visual instructional media, and a physical setting that is both safe and appealing all contribute to children's cognitive, social-emotional, linguistic, and motor growth(Sari, P. R., & Nugraha, 2022). Governance of facilities and infrastructure, accordingly, is directed not merely at whether items are available but at how effectively they are put to work in support of learning.

To develop to their fullest, children of this age depend on surroundings that are supportive, secure, and rich in stimulation. Well-conceived spatial design can awaken the curiosity children already possess, sharpen their social skills, and underpin their cognitive growth(Nurdiana, 2023). Evidence from that study indicates that youngsters who receive early education of high quality tend later to record sound academic results, capable social functioning, and stronger attainment overall(Rachma, Siti Ainnur, 2025). A learning setting is shaped not only by curriculum content and teaching methods; it also depends heavily on whether supporting facilities and infrastructure exist and on how well they are governed. Where provision is sufficient, children gain room to learn actively, to explore, and to enjoy themselves through an array of guided play activities(Anisyah, Nur, 2025).

Among the elements that determine educational quality is whether adequate facilities and infrastructure exist and how well they are governed. Such provision is central to building a learning setting that feels safe and comfortable while carrying learners toward the objectives set for them(Ansori et al., 2025). Where the size of the student body outstrips the facilities on hand, the learning process is unlikely to run at its best(Prince, 2025). Badrudin et al. (2024) hold that planning for facilities and infrastructure forms a pivotal part of education management and needs to proceed in an orderly and purposeful way, keeping pace with curricular demands and with the shifting character of the times(Budi, 2025). Work by Fathurrahman (Fathurrahman Suryadi et al., 2024) corroborates the view that a shortage of facilities can blunt the effectiveness of classroom teaching(Atikah, C., & Oktaviani, 2025). Law Number 20 of 2003 on the National Education System likewise requires every education unit to furnish facilities and infrastructure capable of supporting the fullest development of learners' potential(Setiana et al., 2024). From a managerial standpoint it falls to the school, and above all to the principal as the officer chiefly accountable, to plan and to record which kinds and forms of provision school activities will require. Whether educational aims are reached depends on such matters as sound management, the presence of robust infrastructure, capable human resources, an effective learning process, and further supporting elements(Satriadi et al., 2026).

How pressing the provision of facilities and infrastructure is for the educational process is set out in Law of the Republic of Indonesia Number 20 of 2003 on the National Education System, Chapter XII, Article 45, which states: (1) every education unit, formal or non-formal, must supply facilities and infrastructure answering educational needs as these follow the growth and development of learners' physical potential, intellect, social capacity,

emotion, and duties; and (2) further provisions govern the supply of educational facilities and infrastructure across all education units. Alongside this, Chapter VII, Article 42, paragraphs (1) and (2) of Government Regulation of the Republic of Indonesia Number 19 of 2005 on National Education Standards lays down that: (1) each education unit is to hold facilities comprising furniture, teaching equipment, books and further learning resources, consumable goods, and any equipment required to keep the learning process orderly and sustainable; and (2) each unit is to possess infrastructure covering land, classrooms, a leadership room, a staff room, administrative rooms, a library, laboratory rooms, a canteen, sports grounds, a place of worship, playgrounds, recreation areas, and whatever other spaces are needed to sustain an orderly and continuous learning process.

Counting among the educational resources that must be handled properly, facilities and infrastructure form a component of education management that cannot be detached from the whole. What is meant here takes in buildings, land, administrative equipment, and the aids drawn on directly during classroom teaching and learning. Because they rank among the pivotal elements of education management, facilities and infrastructure weigh heavily on teaching and learning; such provision must not be overlooked, since it helps learners grasp the material set before them and renders the programme of instructional activity more effective and efficient.

Bafadal frames the governance of facilities and infrastructure as the process of drawing on every educational provision to its fullest, both effectively and efficiently(Suranto et al., 2022). Educational facilities denote the whole of the equipment, materials, and furniture drawn on directly in schooling. Fatmawati et al., 2019, for their part, treat educational infrastructure as every supporting item that assists the running of schooling in an indirect way(Suranto, D. I., Annur, S., & Alfiyanto, n.d.). Schools furnished with sturdy facilities and infrastructure are in a position to lift the quality of education as a whole. Support for this view comes from the management approach to facilities and infrastructure, whose concern lies in readying and arranging indispensable equipment so that schooling proceeds smoothly and instructional activity works at its best(Hidayati, N., Ghazali, R. U., & Sodik, 2025).

Where facilities and infrastructure are governed well, a supportive learning environment follows. The process runs through a chain of activities that begins with planning and ends in execution. Its chief aim is to make suitable equipment available, so that learning may proceed effectively and efficiently. As noted earlier, this field of management rests on core principles: effectiveness, efficiency, attainment of goals, accountability, and cohesion.

Within the school, the governance of educational facilities and infrastructure can be sharpened through the input of skilled personnel. Reaching the goals of national education therefore calls for an even grasp of the principles governing school facilities and infrastructure, with the several management components held in balance(Asyari et al., 2021).

Research by Bafadal, 2019, treats the governance of facilities and infrastructure as one of the weightier dimensions of running education, encompassing planning, procurement, utilization, upkeep, and appraisal pursued in an orderly and sustained fashion(Hakim, K., Suyanto, S., & Wahyudi, 2026). Such an approach reaches past physical items alone, taking in managerial dimensions and the working together of the parties involved. Applying management principles effectively lets a school build an ecosystem in which educational goals are met and learners' potential is stretched to its fullest during teaching and learning. Sound management raises educational quality in the round, and the benefit reaches every stakeholder, from the children themselves to the surrounding community(Azzahra, 2024). Prior studies converge on the weight this field of management carries, yet they differ in where they place the emphasis. Wiyani, 2020, found that handling educational facilities effectively helps bring about a supportive learning environment and at the same time makes learning more effective(Humaida, 2021). Suyadi, 2021, likewise reported that learning facilities matched to a child's developmental stage can spur both learning activity and creativity as lessons unfold(Asyari et al., 2021). Read side by side, these studies part company over what matters most: Wiyani (2020) treats management chiefly as a means of producing a supportive environment, Suyadi (2021) locates its value in the fit between provision and the child's developmental stage, while Bafadal (2019) weighs the managerial cycle itself rather than the learning effect it produces. Solid facilities and infrastructure, paired with sound governance, thus stand as the leading precondition for delivering early childhood education.

What these studies leave unexamined, however, is the early childhood centre of modest means. Most were carried out where provision is already adequate, or they treat facilities management as a single undifferentiated variable; few follow the five stages of the cycle, from planning and procurement through utilization and upkeep to appraisal, to the point where each either supports or fails to support an educative environment, and fewer still report what happens when the budget will not stretch to the standard laid down. The stage at which management actually breaks down in such a centre therefore remains unclear.

This study addresses that gap, and its contribution is threefold. It traces all five management stages at a single privately run, B-accredited kindergarten and grades each

against the national provision standard. It documents the use of loose parts drawn from the immediate surroundings as a deliberate response to budget constraint rather than as a mere shortfall. And it identifies record-keeping in maintenance and the absence of a standard appraisal instrument as the two specific points at which management in a centre of this kind gives way. Taken together, the findings offer early childhood centres working under similar constraints a concrete picture of which stages can be strengthened without additional funding.

Yet a number of studies report that schools, early childhood centres in particular, continue to meet obstacles in this area: resources are tight, management systems are loosely structured, and appraisal of facilities falls short of what it should be(Anggraini, D., & Lestari, 2022). The same difficulty surfaced in an interview held with the principal of Buah Hati Kindergarten (Bhakti Kartini Education Foundation). What was reported indicates that the centre already works from a facilities plan drawn on two horizons, one running five years and one running a single year. The longer horizon concentrates on building up play provision indoors and out, whereas the annual plan leans toward classroom learning needs. On paper, then, planning is sound; in practice it remains shaped by what the centre's circumstances allow.

Procurement moves through several stages: needs are analysed, a budget is drawn up (RKAS), items are obtained by purchase or by grant, and they are then inventoried and stored. Money comes from Operational Assistance for Implementation (BOP) funds, contributions from parents, and tuition payments. Scarcity of funds, however, remains the factor that most governs which facilities are actually available(Rahmawati, I., & Baharudin, 2023). To work around this, the centre turns to alternative resources, chiefly natural materials, or *loose parts* as a learning medium. The tactic accords with what Fitriani & Maulana, 2023, reported, namely that working with *loose parts* can build children's creativity and their willingness to explore(Fardhinah, Z., & Cinantya, 2024).

As for utilization, the work of Wiyani, 2020, and Sari & Nugraha, 2022, suggests that facilities have been put to fairly full use in support of learning activity. The interview indicates that use was matched to children's developmental needs: colouring materials for art, storybooks for language, gymnastics and similar movement work for gross motor growth, and painting for fine motor skills. Used in this fitting way, facilities have been shown to draw children further into learning and to render the experience more meaningful(Anggraeni & Pamungkas, 2023).

Upkeep and appraisal, by contrast, are not yet handled in any systematic way. Maintenance remains rudimentary and lacks clear operating standards, while appraisal is neither structured nor sustained. A gap therefore opens between what is planned for facilities and what is actually carried out. Appraisal, after all, is a key link in the management cycle, the one that confirms whether facilities are being used effectively and durably in support of learning(Hidayat, Ayi Najmul, n.d.). Several earlier studies have looked at how much this field of management matters for the quality of learning. Bafadal (2019) stressed that facilities can be managed effectively only where the work is integrated and sustained. Suyadi (2021) argued that well-chosen educational game tools can carry children's development to its fullest. Pratiwi (2023), meanwhile, found that a learning environment backed by adequate facilities lifts children's motivation and their sense of ease while learning(Sa et al., 2025). These studies, however, remain largely conceptual; none has looked squarely at how such management is carried out under the empirical conditions of early childhood centres working with limited resources.

What has been set out reveals a research gap: few studies probe deeply into how facilities and infrastructure are managed where the account rests on empirical data gathered in direct interviews with those who run early childhood centres, and fewer still where the centre holds B accreditation and works with limited resources. This study accordingly matters because it offers a true picture of how facilities are managed in practice and of the tactics used to stretch the resources at hand.

What is new here is a thoroughgoing analysis of facilities management resting on empirical material drawn from interviews with school principals as key informants, which makes it possible to portray the actual state of such management on the ground. The study further brings to light how the centre adapts to its constraints by turning to local resources, among them *loose parts* in its teaching. Against this backdrop the question posed is how facilities and infrastructure are to be managed so that an educative learning environment for young children takes shape at Buah Hati Kindergarten (Bhakti Kartini Education Foundation). A descriptive qualitative approach was chosen; no hypothesis is advanced, the concern being instead to understand the phenomenon in depth.

This research sets out to examine how facilities and infrastructure are managed across planning, procurement, utilization, upkeep, and appraisal in the building of an educative learning environment for young children at Buah Hati Kindergarten (Yayasan Pendidikan Bhakti Kartini).

METHOD

The work reported here follows a qualitative design of the descriptive type, its object being a close account of how facilities and infrastructure are managed in the making of an educative learning environment at the kindergarten. A qualitative route was taken because the aim is to make sense of facilities management through information supplied first-hand by informants. The route affords a sharper view of how such management proceeds inside an early childhood centre. It also yields fuller detail on each stage of the work at the centre, from planning and procurement through utilization and upkeep to the appraisal of learning facilities.

The subject of the study is the principal of Buah Hati Kindergarten, who served as key informant. She was approached because the planning, handling, and decision-making around the centre's educational facilities rest largely with her. Informants were chosen purposively, that is, selected on purpose in the judgement that the person holds knowledge and experience bearing directly on the focus of the study.

The instrument employed was an interview guide, assembled in orderly fashion so as to draw out information on facilities management within an early childhood centre. Its questions address in turn the planning, procurement, utilization, upkeep, and appraisal of the provision the centre holds. Alongside the guide, documentation served as supporting material, including papers recording the facilities the centre owns.

Material was gathered by three techniques: interviewing the principal of Buah Hati Kindergarten face to face, observing the condition and the use of the provision the centre holds, and studying the documents that record it. The interview ran on structured lines, following the guide prepared beforehand, so that what emerged stayed within the study's focus. While it proceeded, the researcher noted the salient points the informant raised and recorded material concerning the provision available at the centre.

Analysis followed qualitative technique in three principal stages: condensing the material, displaying it, and drawing conclusions. Condensing meant sifting and simplifying whatever in the interview bore on facilities management. What remained was then laid out as descriptive prose and tables to ease the analysis. In the final stage the interview material was interpreted so as to arrive at an overall picture of how facilities and infrastructure are managed in building an educative learning environment at Buah Hati Kindergarten.

RESULTS AND DISCUSSION

The findings reported below rest on an interview with the principal of Buah Hati Kindergarten (Bhakti Kartini Education Foundation), supported by observation and documentation study, concerning the handling of facilities and infrastructure in the making of an educative learning environment for young children. They follow the study's focus, taking each stage in turn: planning, procurement, utilization, upkeep, and the appraisal of educational provision.

1. Planning aspects

Facilities are planned in orderly fashion on two horizons, one of five years and one of a single year. The five-year horizon covers the acquiring of indoor and outdoor provision, whereas the annual plan attends chiefly to classroom learning needs.

Planning is led by the principal, in whom authority over the centre's provision rests, and is worked out jointly with the teaching staff at a coordination meeting held before the school year opens; proposals belonging to the five-year horizon are then submitted to the Bhakti Kartini Education Foundation, as the organising body, for approval at the foundation's annual work meeting in June, before the new school year opens. Planning is thus settled by three parties: the principal, in whom responsibility rests; the two class teachers, who bring forward the needs of their own groups; and the foundation's treasurer, who tests each proposal against the funds in hand.

What is planned is itemised rather than left general. The five-year plan covers indoor provision (classroom furniture, storybooks, educational game equipment, art and craft materials) and outdoor provision (play equipment and the play yard), while the annual plan covers classroom and consumable items tied to the themes to be taught in the coming year, among them drawing and colouring materials, worksheets, picture books, and replacement parts for educational game equipment. The centre's planning documents record thirty-eight items under the five-year plan and twenty-one under the annual plan for 2025/2026.

Three grounds underlie the plan. The first is an analysis of need, drawn from the condition and completeness of existing provision as recorded at the close of the preceding year. The second is the learning needs of each age group, so that provision answers to children's developmental stage and to the themes to be taught. The third is the funds in prospect, since every item is weighed against the school budget (RKAS) and the sources of income the centre can draw on. Alongside these, the minimum standards of provision set for early childhood centres serve as a reference in fixing priorities.

These findings gain support from Purmaningsih & Purbangkara, 2022, who showed that where provision is adequate the learning process becomes both effective and efficient(Amalia et al., 2025). Yanto (2025) argues that governing facilities to their fullest calls for planning that is comprehensive, use that is effective, and upkeep that never lapses(Silvi, A. A., & Fahrurrozi, 2025). Sari (2020), for her part, describes strategic planning as an effort to secure results over one

to five years while weighing the opportunities and difficulties that may arise(Nurcahyanti et al., 2024).

The present findings thus bear out that planning at the kindergarten has produced effective practice, though there is room to move it toward a firmer grounding in data.

2. **Procurement aspects**

Acquiring facilities passes through a sequence of stages: analysis of needs, preparation of the budget (RKAS), the purchase itself, inventory, and storage. Funding is drawn from BOP allocations, tuition payments, and contributions made by parents. How far the plan is carried out still hinges on whether the money is there. The school also draws on materials from its immediate surroundings, so-called loose parts, as an alternative learning medium.

What was found here about budget constraints echoes several studies naming finance as the foremost obstacle in running early childhood centres. Sabrina & Effane (2022) observed that tight budgets frequently keep facility standards from being met(Viola et al., 2024).

Turning to loose parts instead, however, points to innovation of a kind that sits well with contemporary approaches to learning. Hidayati (2023) demonstrates that working with *loose parts* sharpens children's creativity and their critical thinking(Iftitah, n.d.) theory *Loose Parts* advanced by Nicholson (1971) holds that surroundings stocked with an assortment of open-ended materials invite children to explore and to create(Conscience, 2025). Scarce resources, then, need not stand in the way; they may instead open room for innovation in teaching.

3. **Utilization aspects**

Facilities are being put to work about as fully as they can be. They serve several strands of children's development at once: storybooks for language, colouring materials for art, and games and gymnastics for physical movement. Teaching aids and other resources have likewise been folded into the media used in lessons.

It is useful to distinguish provision that bears directly on children's learning from provision that supports it at one remove. Directly involved are the items children handle in the course of a lesson: storybooks and picture cards for language, crayons, paper and collage materials for art, blocks and educational game equipment (APE) for cognitive and fine-motor work, and outdoor play equipment, balls and hoops for gross-motor activity, together with the loose parts gathered from the surroundings. Indirectly involved is the provision that makes those lessons possible: the classroom itself with its natural lighting and ventilation, tables, chairs and floor mats, storage cabinets that keep equipment within children's reach, the play yard, sanitary facilities, and the administrative and teacher-preparation facilities behind the scenes.

Both kinds are drawn on within a single day's programme, from the opening circle through the thematic activity and outdoor play to the tidying away of equipment. Observation on 12 March 2026 showed the pattern plainly: the children gathered on the floor mat at 07.30 for songs and

prayers; at 08.00 they moved to the tables for a thematic activity using picture cards and collage materials; at 09.15 they went out to the play yard for climbing and ball games; and at 10.00 they came back in, washed their hands, and returned the equipment to its cabinet before the closing circle.

What emerged here agrees with Daniah (2025), for whom a varied range of learning media draws children further into lessons(Lestari, Y., & Susanto, 2026). Bararah (2020) adds that how effectively facilities are used turns largely on the teacher's competence in handling the lesson(Pamekasan, 2024).

Earthman (2002) and Barret (2015) showed, further, that a school's physical setting, whether the classroom is tidy, how it is lit and ventilated, and whether facilities such as computers and laboratories are on hand, has long been counted among the external influences on learner motivation(Utami et al., 2025). The full use made of facilities at Buah Hati Kindergarten therefore mirrors teaching practice that supports children's learning as a whole.

4. Maintenance aspects

Teachers and the school look after facilities at intervals, checking the state of learning equipment on a regular footing. Anything still serviceable stays in use; what is broken is mended or replaced as far as the centre's finances permit. The purpose of such care is to keep children safe and comfortable while they learn.

Responsibility for this work is shared rather than resting on the teachers alone. Each teacher is answerable for the provision held in her own classroom, checking its condition and reporting damage to the principal; the principal decides what is to be mended or replaced and allocates the funds for it; and the upkeep of the building, the play yard and the sanitary facilities is handled by a caretaker whom the centre employs part-time, three days a week, working under the principal's direction.

Parents take part as well: they are informed of the condition of provision at the routine parents' meeting, join the working bee held each semester to clean and repair play equipment, and contribute funds or materials for items the school budget cannot cover. In the 2025/2026 year, for instance, the parents' association met the cost of repainting the climbing frame and of replacing two sets of outdoor play mats.

In practice the work proceeds on two footings. Routine care is daily and preventive: equipment is tidied and returned to its cabinet after use, and the classroom and play yard are cleaned. Periodic care falls at longer intervals, when teachers and the principal check equipment together, sort what is serviceable from what is broken, and decide on repair, replacement or disposal. Records of these checks are kept only in outline at present, and it is here that the centre's maintenance management stands to be strengthened.

Asmani (2017) reported much the same thing about record-keeping in maintenance, finding that a good many schools run without any structured administrative system for it(Hutagalung, Yuliana, 2026). Fauziah (2024) likewise points to inventory and routine monitoring as the means by which learning facilities are kept serviceable over time(Meirnawati et al., 2025). Even where upkeep does occur at intervals, then, firming up the paperwork and record-keeping remains a necessary step toward better governance of facilities.

5. Evaluation aspects

Facilities are appraised at the school's regular meetings. What is weighed there is the state of each item, how much it is used, and what will need developing later on. The appraisal remains broad-brush, however, and no purpose-built instrument is applied in any systematic way.

Support for this comes from Parid and Alif (2020), who observed that in many schools the appraisal of facilities stays general and rests on no standard instrument(Sa'diah, Halimatus, 2025). Rohiat (2020) stressed that appraisal works only where it proceeds systematically, rests on plain indicators, and is backed by recorded evidence(Akbar, P. C., Kusbandrijo, B., & Widodo, 2025). Absent a standard instrument, decisions are bound to fall short of what they might be.

Table of Research Results

Table 1. Analysis of facilities and infrastructure management in early childhood education

No.	Aspects	Findings	Categories
1.	Planning	There are 5-year and yearly plans	Good
2.	Procurement	Relying on school funding and limited resources	Sufficient
3.	Utilization	It is optimal and in accordance with the needs of children	Good
4.	Maintenance	Done regularly	Sufficient
5.	Evaluation	Done but not yet systematic	Sufficient

Remarks: The "Good" category indicates that the aspect has run optimally according to the PAUD management standard, while the "Sufficient" category indicates that the aspect has run but still needs improvement.

Source : processed from the interview with the principal, observation, and documentation study at Buah Hati Kindergarten (Bhakti Kartini Education Foundation)

The five aspects are graded qualitatively rather than expressed as percentages, since the data rest on a single key informant and no scoring procedure was applied. On that basis planning and utilization fall in the good category, while procurement, maintenance and evaluation reach only the adequate category, as set out in Table 1.

Based on the interview, observation and documentation data, the results of the research show that the management of facilities and infrastructure at Buah Hati Kindergarten (Bhakti Kartini Education Foundation) has covered all the main aspects of management, but it is not fully optimal. In the planning aspect, the institution has implemented long-term and short-term planning in a structured manner. This statement is in line with the views of Bernawi and Arifin, 2018 who stated that planning is the main basis in the management of educational facilities and infrastructure.

In terms of procurement, limited funds are the main factor affecting the availability of facilities. However, the use of alternative sources such as natural materials (loose parts) shows innovation in the management of learning facilities. This is in accordance with the opinion of Suyadi (2021) that early childhood learning can utilize the surrounding environment as a learning resource.

The use of facilities and infrastructure has gone well and supports various aspects of child development. This shows that teachers are able to optimize the available facilities. According to Wiyani (2020), the effective use of facilities can improve the quality of early childhood learning.



Figure 1. Classroom conditions and the use of learning facilities

As seen in figure 1, the classroom has been arranged with a neat arrangement of desks and chairs and supported by natural lighting towards the window. This shows that the use of facilities has supported the learning process, although there are still some physical aspects such as ceilings that require further attention.

In the maintenance aspect, maintenance activities are carried out regularly, but they are still simple and have not been systematically documented. This shows that maintenance management still needs to be improved to be more structured.



Figure 2. Storage conditions of educational game equipment (APE)

In Figure 2, it can be seen that the learning facilities are stored in a special cabinet. This shows that there are efforts to manage facilities quite well, although more systematic arrangements are still needed to facilitate access and maintain the durability of tools.

Meanwhile, in the evaluation aspect, evaluation activities have been carried out through school meetings, but have not used standardized evaluation instruments. According to Rohiat (2020), the evaluation of good facilities and infrastructure must be carried out systematically in order to provide accurate data for decision-making.

Overall, the results of the study show that the management of facilities and infrastructure at Buah Hati Kindergarten (Bhakti Kartini Education Foundation) is in the category of quite good. This is shown by the dominance of planning and utilization aspects that are higher than other aspects. This condition is in line with the B accreditation status, which shows that the institution has met the minimum standards, but still needs improvement in the aspects of procurement, maintenance, and evaluation.

CONCLUSION

Based on the results of the research obtained through interviews with the principal, supported by observation and documentation study, it can be concluded that the management of facilities and infrastructure at Buah Hati Kindergarten has been carried out through five main stages, namely planning, procurement, utilization, maintenance, and evaluation. The findings of the study show that the planning and utilization aspects are in the good category, because they have been carried out in a structured manner and are able to support early childhood learning activities effectively. Meanwhile, the aspects of procurement, maintenance, and evaluation are still in the sufficient category, which indicates that the implementation has been carried out, but not optimal. This condition is influenced by limited resources and the absence of a standardized evaluation system. Thus, the purpose of the research to examine the management of facilities and infrastructure in creating an educational learning environment has been achieved. The results of this study also confirm that the management of facilities and infrastructure has an important contribution in improving the quality of learning, although development efforts are still needed in certain aspects.

Based on these results, it is suggested that the institution can improve the management of facilities and infrastructure, especially in the procurement aspect through the optimization of various available funding sources. In addition, there is a need to strengthen the evaluation system by using more systematic and well-documented instruments. The maintenance of facilities and infrastructure also needs to be improved through more targeted planning so that

the quality of facilities is maintained. For further research, it is recommended to involve more informants or use a different research approach, such as a quantitative approach, so as to produce more comprehensive findings.

AUTHOR CONTRIBUTION STATEMENT

The first author is responsible for designing the research concept, compiling research instruments, conducting data analysis, and compiling the entire article manuscript starting from the introduction, methods, results, to discussion. The second author played a role in collecting data through interviews with school principals. The third and four author as a supervisor contributes to providing academic direction, validating research concepts, and reviewing and improving the manuscript as a whole. All authors are involved in the process of finalizing the article until it is suitable for publication.

BIBLIOGRAPHY

Agustriani, J., Wulandari, Y., & Wulandari, R. (2022). *MANAGEMENT OF PLAY GROUP FACILITIES AND INFRASTRUCTURE (KB)*. *1*(3), 351–362.

Akbar, P. C., Kusbandrijo, B., & Widodo, J. (2025). (2025). *No Title*. *5*(6).

Amalia, T., Afifah, A. R., & Prasetyo, A. (2025). *The Implementation of Educational Facilities and Infrastructure Management in Madrasah to Improve the Quality of Learning*. *3*(1), 38–53.

Andriana, N. (2025). *Planning of educational institution infrastructure facilities in Sdit Putra Pakuan Bogor*. 1103–1122. https://doi.org/10.30868/im.v8i02.8661

Anggraeni, E. P., & Pamungkas, J. (2023). *Facilities and Infrastructure of Institutions in Creating the Potential for Early Childhood Art Development*. *7*(1), 85–93. https://doi.org/10.31004/obsesi.v7i1.2864

Anggraini, D., & Lestari, D. A. (2022). (2022). *No Title*. *2*(2).

Anisyah, Nur, et al. (2025). *No Title*. *5*, 864–872.

Ansori, A., Faizah, N., Fajariah, P., Saputra, R., Islam, U., Sultan, N., & Kasim, S. (2025). *The effectiveness of the management of educational facilities and infrastructure in improving the quality of learning*. *1*.

Asyari, D., Setiawati, R., Istiqomah, Y. Y., & Windayana, H. (2021). *Aulad : Journal on Early Childhood Management of School Facilities and Infrastructure in Masa*. *4*(3), 230–234. https://doi.org/10.31004/aulad.v4i3.209

Atikah, C., & Oktaviani, R. (2025). (2025). *Education Management as an Important Foundation*. *9*(1), 91–98.

Azzahra, S. (2024). *Optimizing the management of facilities and infrastructure in improving the quality of student learning*. *2*(2), 152–165.

Budi, M. H. S. (2025). *CRITICAL ANALYSIS: LEADERSHIP AND POLICY OF ISLAMIC EDUCATION IN INDONESIA*. *6*(4), 947–959.

Fardhinah, Z., & Cinantya, C. (2024). (2024). *No Title*. *4*(3), 1–14.

Hakim, K., Suyanto, S., & Wahyudi, M. F. (2026). (2026). *THE IMPLEMENTATION OF INFRASTRUCTURE MANAGEMENT AS AN EFFORT TO ACHIEVE INFRASTRUCTURE STANDARDS 11*(1).

Hidayat, Ayi Najmul, et al. (n.d.). *Supervision management*.

Hidayati, N., Ghazali, R. U., & Sodik, A. (2025). (2025). *No Title*. *Sec. 11*.

Humaida, R. T. (2021). *Aulad : Journal on Early Childhood Early Childhood Cognitive Development through the Use of I-CT-Based Digital Educational Game Media*. *4*(2), 78–87. https://doi.org/10.31004/aulad.v4i2.98

Hutagalung, Yuliana, et al. (2026). *Management of facilities and infrastructure in madrasah aliyah schools*. *11*(1), 1105–1111.

Iftitah, S. L. (2023). (n.d.). *MEDIA.*

Ihsan, A. L., Education, J., Anak, I., Dini, U., & Issn, O. (2025). *1 , 2 1*. *Sec. 6*.

Kalsum, U., Salsabilah, R., Putri, P. N., & Noviani, D. (2023). *The Basic Concept of Early Childhood Education in an Islamic Perspective*. *1*(4).

Lestari, Y., & Susanto, B. H. (2026). (2026). *1 , 2 1,2*. *Sec. 12*.

Mahmuda, M. (2024). (2024). *No Title*. *1*(1), 77–83.

Marwan, I., Gustaman, R. F., & Gandi, A. (2024). *The Dichotomy of Educational Facilities and Infrastructure in Indonesia*. *2*(3), 155–161.

Meirnawati, S., Putri, P., Nugraha, M. S., Studies, P., Education, M., University, I., State, I., Gunung, S., Islam, U., Sunan, N., & Djati, G. (2025). *Strategic Planning of Educational Facilities and Infrastructure to Improve the Effectiveness of Services in Islamic Elementary Schools: A Qualitative Study at Madrasah Ibtidaiyah MATLAUL ATFAL*. *1*(2), 1600–1613.

Nurani, Y. (2025). *Early Childhood Science Literacy Through Project Learning Using Loose Parts*. *14*(1), 159–173. https://doi.org/10.26877/paudia.v14i1.1156

Nurcahyanti, A. D., Kusuma, D. F., Cahyaningtyas, A. I., Sari, L., & Sakulpimolrat, S.

(2024). *Analysis of Early Childhood Education Quality Development Strategy at Makarima Kartasura Islamic Early Childhood Education*. *12*(2), 124–142.

Nurdiana, R. (2023). *Analysis of the Influence of Classroom Physical Environment on Early Childhood Learning Activity Interest*. *1*(1), 1–7.

Pamekasan, N. (2024). *1 , 2 1,2*. *7*, 49–59.

Rachma, Siti Ainnur, et al. (2025). *Pepper fire*. *12*(1), 211–222.

Rahmawati, I., & Baharudin, T. R. (2023). (2023). *QUALITY OF LEARNING SERVICES AT SMA NEGERI 1 CIAMPEA INTRODUCTION The Industrial Revolution 4 . 0 is expected to be able to realize smart education through improving and equitable quality of education, expanding access and relevance in realizing the world class. 09* (September), 12–22.

Riyadi, S. (2025). *Strategies for Managing Educational Infrastructure to Create a Conducive Learning Environment*. *4*(1), 5219–5228.

Sa'diah, Halimatus, et al. (2025). *Sulthan Thaha Saifuddin State Islamic University, Jambi, Indonesia*. *11*(2), 138–146.

Sa, H., Nalsal, I., Sembiring, A., & Zahwa, N. (2025). *Strategies for Increasing Teacher Capacity and School Infrastructure in Supporting the Implementation of the Independent Curriculum at SDN Sungai Lumbah 2*. 551–561.

Sari, P. R., & Nugraha, U. (2022). (2022). *Indonesia Journal of Sport Science and Coaching The Effect of Wall Pass Training on the Accuracy of Passing of the Tanjung Jabung Barat Women's Futsal Team in a certain duration of time played on the field, goal, futsal game ball*. *pp. 4*(01), 91–99.

Satriadi, T. I., Tanrere, S. B., & Zuhri, S. (2026). *Managerial Competence of Madrasah Heads in Improving the Quality of Education at Madrasah Tsanawiyah Darussalam Pangkalpinang*. 4458–4470.

Setiana, R., Fauziyyah, S., & Ramdani, S. (2024). *National Education Standardization*. *7*(19), 1797–1808.

Silvi, A. A., & Fahrurrozi, F. (2025). (2025). *Management of Educational Facilities and Infrastructure in Supporting the Quality of Learning in MAN 2 Semarang City*. *8*, 912–937.

Suranto, D. I., Annur, S., & Alfiyanto, A. (2022). (n.d.). *1428-Article Text-2729-1-10-20180511.pdf* (pp. 1428-Article Text-2729-1-10-20180511.pdf. (n.d.).).

Suranto, D. I., Annur, S., & Alfiyanto, A. (2022). *THE IMPORTANCE OF FACILITIES AND*

INFRASTRUCTURE. 1(April), 59–66.

Utami, Y. L., Elrfhentri, F., Septiani, N., Islam, U., Fatmawati, N., & Bengkulu, S. (2025). *The relationship between School Facilities and Physical Environment on Student Learning Motivation*. *Sci.,* 302–312.

Viola, M. A., Vilanti, F. A., Rahman, I. A., Gustian, I. F., Mawarni, J. D., Wijaya, H. A., Education, A., Teacher Training, F., & Jambi, U. (2024). *Analysis of the Implementation of Education Management Standards*. *12*(April), 1–12.

Wati, K., Lubis, R., Al-zany, N., Kartini, S., & Sari, I. (2025). *Characteristics of 4-year-old child development*. *pp. 2*, 1516–1529.

Widadiyah, Qorina, et al. (2024). (n.d.). *Concept and Implementation*.