



School Exterior Design Arrangement in Creating an Educational Environment at Baitul Hijrah Binjai Kindergarten

Ira Rayani*¹, Asyifa Daufiza², Putri Hasanah Nasution³, Tasya Alfarezka Sitepu⁴, Ampun Bantali⁵

¹²³⁴⁵*Institut Syekh Abdul Halim Hasan Binjai*

Abstract

Structuring the school's exterior design has an important role in creating an educational environment for young children because the school's outdoor space not only functions as a place to play, but also as a learning medium that supports children's development. This research aims to analyze the exterior design arrangement of Baitul Hijrah Binjai Kindergarten in creating an educational environment. A qualitative approach with descriptive methods was used to describe the existing conditions of the school exterior design. Data collection was carried out through direct observation and documentation of field conditions in outdoor play areas, arrangement of play equipment, shading elements, vegetation and circulation paths. The research results show that the exterior design of Baitul Hijrah Binjai Kindergarten has provided outdoor space that supports children's play activities, however the arrangement of play equipment has not been clearly zoned, the condition of the playing surface is still uneven, and the use of vegetation and environmental elements has not been integrated with learning activities. Based on the results of this research, it can be concluded that the exterior design of the Baitul Hijrah Binjai Kindergarten has great potential to be developed as an educational environment through a more structured, safe and child-friendly design arrangement so that it can optimally support early childhood development.

Keywords: School Exterior Design, Educational Environment

Abstract

The arrangement of school exterior design has an important role in creating an educational environment for early childhood because the outdoor space of the school not only functions as a playground, but also as a learning medium that supports children's development. This study aims to analyze the arrangement of the exterior design of Baitul Hijrah Binjai Kindergarten in creating an educational environment. A qualitative approach with a descriptive method is used to describe the existing conditions of the school's exterior design. Data collection was carried out through direct observation and documentation of field conditions in the outdoor play area, arrangement of game equipment, shade elements, vegetation, and circulation paths. The results of the study show that the exterior design of Baitul Hijrah Binjai Kindergarten has provided an outdoor space that supports children's play activities, but the arrangement of the playground equipment has not been clearly zoned, the condition of the playing surface is still uneven, and the use of vegetation and environmental elements has not been integrated with learning activities. Based on the results of the study, it can be concluded that the exterior design of Baitul Hijrah Binjai Kindergarten has great potential to be developed as an educational environment through a more structured, safe, and child-friendly design arrangement in order to support optimal early childhood development.

Keywords: School Exterior Design, Educational Environment

*Corresponding author: Ira Rayani email: rayaniira70@gmail.com

Sheikh Abdul Halim Hasan Binjai Institute

@ 2024 The Author (s). Published by STAI Darul Kamal NW Kembang Kerang NTB, Indonesia. This is an Open Access article distributed under the terms of the <https://creativecommons.org/licenses/by-sa/4.0>

Introduction

Early childhood education is a very important early stage in the process of human development. During this period, children are in a golden phase of development, where physical, cognitive, social, and emotional abilities develop very quickly. The learning process in early childhood cannot be equated with a higher level of education because children learn mainly through play activities and direct experience. A supportive environment will help children understand the world around them naturally. Therefore, early childhood education requires an approach that is in accordance with the characteristics and needs of child development. This is in line with the view that a pleasant learning experience will have a positive impact on children's development (Stuttgart, 2022).

The school environment has a very large role in supporting the early childhood learning process. Children not only learn through activities in the classroom, but also through interaction with the environment outside the school. The physical environment of the school can affect children's feelings of safety, comfort, and enthusiasm in participating in learning activities. Schools that have a well-organized environment will help children feel at home at school. In addition, the school environment is also a place for children to interact with peers and teachers. Therefore, the school environment needs to be designed consciously to be able to support the development of children as a whole. The exterior design of the school is an important part of the physical environment of the school that is directly related to the child's activities. The exterior design includes a school yard, outdoor play area, garden, circulation path, and other supporting elements. In early childhood education, exterior design not only serves as a complement to the building, but also as a space that supports the learning process through play. Outdoor school spaces can be a place for children to move freely, explore, and interact socially. With proper arrangement, outdoor spaces can serve as a fun learning environment. This is in accordance with the opinion that emphasizes the importance of exterior design in PAUD units. (Rozana & Stuttgart, 2020) Purnama et al., (2020)

Kindergarten children have active characteristics, love to move, and have a high curiosity. Children tend to learn through hands-on experience with the surrounding environment. Therefore, the school environment needs to be designed according to the scale and needs of the child. A well-designed physical environment can help stimulate children's creativity, independence, and social skills. On the other hand, an inappropriate environment can hinder children's activities and comfort. Thus, the design of the school environment needs to pay attention to the characteristics of early childhood development as a whole. (Hasibuan et al., 2023)

The concept of child-friendly schools is a relevant approach in designing an early childhood education environment. Child-friendly schools emphasize the importance of safety, comfort, and protection of children from a variety of potential hazards. The school environment must be able to provide a sense of security for children during activities, especially when playing outdoors. Clear spatial planning, safe material selection, and easy supervision are all part of this concept. According to , the application of child-friendly architecture concepts can help create a school environment that supports children's development optimally. In addition to the safety aspect, the psychological comfort of children also needs to be considered in the design of the school environment. A physical

environment that suits the child's character can help reduce anxiety and increase the child's confidence. Children will be more easily adapted to the school environment if the space used feels fun and not stressful. The application of architectural psychology in the design of early childhood education schools can create a calmer learning atmosphere and support the learning process. It can also help children feel emotionally secure while at school. (Bunawardi et al., 2023) (Nabilah et al., 2020)

Outdoor school spaces have great potential as nature-based learning media. The presence of gardens, plants, and other natural elements can provide a different learning experience than learning in the classroom. Children can learn to get to know the environment through direct interaction with nature. In addition, outdoor spaces can also be used for various learning activities that involve movement and exploration. According to , good landscape design can create a positive relationship between humans and the natural environment, including in the context of education. The use of natural elements in the school environment can also support the development of children's naturalist intelligence. Children can be introduced to different types of plants, colors, textures, and natural processes through hands-on experience. Nature-based learning can help children understand the importance of protecting the environment from an early age. Research conducted by shows that the school environment integrated with natural elements can have a positive influence on the development of children's naturalistic intelligence. Therefore, natural elements should be part of the exterior design of an early childhood school. Although outdoor spaces have great potential, in reality there are still many PAUD schools that have not made optimal use of outdoor space. The outdoor space of the school is often only used as a playground without careful planning. Space planning, choice of playground equipment, and safety aspects often have not been thoroughly considered. As a result, outdoor spaces have not fully functioned as an educational learning environment. This condition shows the need for more attention to the arrangement of the exterior design of PAUD schools. (Wibowo, 2023) (Ningsih et al., 2025) (Düsseldorf et al., 2024)

In addition to design planning, school environment management also plays an important role in supporting the quality of outdoor spaces. A well-organized and well-maintained school environment will be more comfortable and safe for children to use. Good management of facilities and infrastructure also makes it easier for teachers to supervise children's activities. A well-managed environment can support the learning process more effectively. This is in line with the opinion that emphasizes the importance of managing PAUD facilities and infrastructure. Baitul Hijrah Binjai Kindergarten is one of the early childhood education institutions that has an outdoor play area as part of the school environment. The existence of this outdoor space provides an opportunity to create a fun learning environment and support children's development. Children use outdoor spaces to play, move, and interact with peers. However, the arrangement of the school's exterior design still needs to be studied further. This study is important to know the extent to which the outdoor space of the school has served as an educational environment. (Suhardi et al., 2024)

Based on this description, this study was conducted to analyze the arrangement of the exterior design of Baitul Hijrah Binjai Kindergarten in creating an educational environment for early childhood. This research is focused on the condition of the exterior design of the school and its use in children's activities. The results of the study are

expected to provide an overview of the real conditions of the environment outside the school. In addition, this research is also expected to be considered in the development of an early childhood education school exterior design that is more child-friendly and educational.

Method

This study uses a qualitative approach with a descriptive method to describe the real conditions of the exterior design arrangement of Baitul Hijrah Binjai Kindergarten. This approach was chosen because the research focuses on understanding the condition of the school environment as it is without carrying out certain treatments. The descriptive method allows researchers to explain phenomena that occur in the field systematically and in depth. The qualitative approach is considered appropriate in the study of educational design and architecture because it is able to explain the relationship between space, activity, and user contextually. The research was carried out at Baitul Hijrah Binjai Kindergarten with the object of study in the form of school exterior design. The focus of the research includes outdoor play areas, the arrangement of play equipment, shade elements, vegetation, circulation paths, and other supporting elements used by children in daily activities. The selection of these objects is based on their role which is directly related to early childhood play and learning activities. The outdoor space of the school is seen as having great potential as an educational environment if arranged appropriately. (Sutanto, 2020) (To Maple et al., 2025)

Data collection is carried out through direct observation and documentation of the existing condition of the school's exterior design. Observations were carried out by observing the arrangement of outdoor spaces, the condition of play facilities, the level of comfort, and the safety aspects of the school environment. Documentation in the form of photos is used to record field conditions and strengthen the observation results. The visual data helps to provide a more objective picture of the condition of the school's exterior design. In addition to observation and documentation, this research is also supported by a literature study. Literature studies were carried out by reviewing books and national journals that discuss school exterior design, early childhood education, and the concept of child-friendly schools. The literature used serves as a theoretical basis and reference in analyzing the suitability of field conditions with the concept of the educational environment. This approach is used so that the analysis carried out has a strong theoretical foundation. (Indrawanto . Denny et al., 2025) (Waskitaningtyas & Supriyanto, 2023)

The data obtained were then analyzed qualitatively descriptively by relating relevant field findings and theories. The analysis was carried out to see the extent to which the arrangement of the exterior design of Baitul Hijrah Binjai Kindergarten has supported the creation of an educational environment for early childhood. The results of the analysis are used as the basis for drawing research conclusions. With this method, it is hoped that the research can provide a clear and comprehensive picture of the role of school exterior design in supporting the child's learning process.

Results and Discussion

Results

Based on the results of field observations conducted at Baitul Hijrah Binjai Kindergarten, it was found that the exterior design of the school was dominated by outdoor play areas that became the center of children's activities. This area is used regularly every day by children to play before and after learning activities in the classroom. Outdoor play activities are seen as an important part of children's daily life at school. Children use the area to move freely, run, and interact with peers. The existence of this outdoor space shows that the school has provided basic facilities for children's physical activities. However, its use is still limited to the function of play. The outdoor space has not been fully utilized as a planned learning space. The outdoor play area is equipped with several types of play tools such as swings, slides, seesaws, and simple climbing tools. These game tools are actively used by children and are the main attraction when children are outside the classroom. Children seem enthusiastic about using the available play facilities. Although the number of game tools is quite diverse, the arrangement does not yet have a clear division of zones. Some game tools are placed close together without adequate spacing. This condition causes children's activities to often overlap. This has the potential to cause discomfort and safety risks when children play together.

At the top of the play area there is a shade element in the form of an iron frame covered with paranets. This shade serves to protect children from direct sunlight exposure when playing outdoors. In terms of function, the presence of shade is enough to help create cooler conditions in the play area. Children can play longer without feeling too hot. However, visually the shade still looks simple and less attractive. The shape and color have not given a cheerful impression that is in accordance with the character of the early childhood school. Shades have also not been utilized as a design element that reinforces the school's visual identity. The surface of the playing area is mostly in the form of soil and natural grass. The use of this material gives the impression of a natural environment and close to nature. Children can play directly on the ground surface without artificial layers. However, from the observation results, it was found that the soil condition in some parts was uneven. There are bare and hollow areas due to constant use. This condition has the potential to endanger children when running or playing actively. In addition, there has been no additional layer of safety in areas with high playing intensity. This shows the need for more attention to the safety aspect of the playing surface.

The vegetation in the exterior environment of the school consists of shrubs and ornamental plants that are around the play area and circulation paths. These plants give a green impression and help beautify the school environment. Vegetation also serves as a visual barrier between the play area and the path. However, the use of vegetation is still passive. Plants have not been used as part of children's learning activities. Children have not been directed to interact directly with existing plants. With these conditions, the function of vegetation is still limited as an aesthetic element and has not yet become part of educational activities. The circulation line in the exterior area of the school is used by teachers and companions to supervise children's activities during play. This path is around the play area and allows the teacher to approach the child when needed. Teachers were seen actively moving from place to place to follow children's activities. However, the

circulation route has not been laid out clearly and directionally. Some parts of the path mix directly with the children's play area. This condition makes the boundary between the play area and the circulation area less clear. As a result, supervision has not been optimally carried out from various perspectives.

In terms of color and appearance, the toys used in the play area have bright colors such as red, yellow, and blue. These colors are able to attract children's attention and create a cheerful playing atmosphere. Children seem interested in trying out the various game tools available. However, the results of observations show that some game tools are starting to experience a decrease in the quality of the display. The paint color looks faded and some parts show signs of wear. This condition can reduce the visual appeal of the playing environment. In addition, the maintenance of play facilities still needs to be improved to keep them safe for children to use. The Baitul Hijrah Binjai Kindergarten environment is located in a fairly active residential area. Community activities around the school look quite dense at certain times. To maintain the safety of children, the school area has been equipped with a fence as a barrier between the school environment and the outside environment. This fence serves to prevent children from leaving the school area unsupervised. Functionally, the fence has provided basic protection for children. However, in terms of design, the fence still looks simple and does not reflect the character of an early childhood school. The appearance of the fence has not given a friendly and pleasant impression.

In addition to the play area, the school's outdoor space is also used as a gathering area and a place for children to rest after playing. Children can be seen sitting or standing around the play area while resting. However, there are no supporting facilities such as children's benches or comfortable seating areas. Children tend to sit on the floor or around toys. This condition shows that the function of the school's outdoor space is still limited to play activities only. Outdoor spaces are not fully designed to support a variety of children's activities. Supporting facilities for outdoor activities still need to be improved. Overall, the results of the study show that the exterior design of Baitul Hijrah Binjai Kindergarten has provided an outdoor space that supports early childhood play activities. The existence of play areas, play equipment, and shade elements shows that there is attention to the basic needs of children. However, spatial arrangement, facility conditions, and the use of environmental elements still have some limitations. The outdoor space of the school has not been fully designed as a planned learning environment. The potential of outdoor space as an educational environment is still not fully utilized. This condition is an important basis for the development of school exterior design in a more structured and safe direction.

Discussion

The results of the study show that the existence of an outdoor play area at Baitul Hijrah Binjai Kindergarten has an important role in supporting early childhood physical and social activities. Outdoor spaces that are used regularly provide opportunities for children to move freely, interact, and express themselves. This condition is in line with the concept of an early childhood learning environment that places outdoor space as part of the learning process that is inseparable from activities in the classroom. A school environment that provides an open play space can help a child's motor, social, and emotional development naturally. However, the results of observations also show that the

arrangement of game equipment in the play area does not have a clear division of zones. This condition causes children's activities to often overlap and have the potential to cause discomfort. In the design concept of a child-friendly school, the arrangement of outdoor spaces should be designed with a clear division of functions so that each activity can run safely and optimally. Structured play zone arrangement can help children recognize the function of the space while increasing a sense of security while playing. (Dwi Ma'sum et al., 2025) (Muzakki , Aghnaita , Setyaningsih , et al., 2024)

The existence of a shade element in the play area has made a positive contribution to children's comfort when doing outdoor activities. The shade helps reduce exposure to the sun's heat so that children can play longer without experiencing excessive fatigue. However, visually the shade still does not support the character of the early childhood school environment. Children's learning environments should be designed not only functional, but also have an attractive and fun appearance in order to stimulate children's interest and comfort. The surface of the play area dominated by soil and natural grass gives the impression of an environment close to nature. This condition is in line with the concept of nature-based learning that can help children get to know their surroundings directly. However, findings on uneven ground surfaces indicate safety risks. In designing early childhood education facilities, the safety aspect is the main thing that must be considered so that children can play safely and comfortably. (Ma'sum et al., 2025) (Hamdani et al., 2023)

The vegetation in the exterior environment of the school acts as a greening element and forms the atmosphere of the environment. However, its use is still limited as an aesthetic element. In fact, vegetation can be used as a learning medium to introduce children to nature and the environment. The use of plants as part of learning activities can help foster naturalist intelligence and children's concern for the environment from an early age. The circulation path in the exterior area of the school has supported teacher supervision of children's activities, but it has not been clearly arranged. Circulation pathways mixed with play areas can reduce the effectiveness of supervision and potentially cause disruption of activities. In a good school architectural concept, circulation paths should be designed clearly and easily understood to support the safety and comfort of space users, especially children. (Suyanta et al., 2018) (Atmodiwirjo et al., 2022)

In terms of color and the appearance of the game tools, the use of bright colors is in accordance with the character of the child's world. Bright colors are able to stimulate visuals and increase children's interest in the play environment. However, the condition of some game tools that are starting to fade shows a lack of maintenance of the facilities. The maintenance of school facilities and infrastructure is an important part of creating a safe learning environment and supporting the early childhood learning process. The existence of a fence as a barrier to the school environment has fulfilled the basic safety aspect for children. The fence functions to protect children from the outside environment that has the potential to be dangerous. However, in terms of design, the fence does not yet reflect the friendly and fun character of the early childhood school. School demarcation elements are supposed to be designed not only as a safeguard, but also as part of the school's educational visual identity. (Sriwanto et al., 2024) (Muzakki , Aghnaita , Afifah, et al., 2024)

Findings regarding the limitations of supporting facilities such as seating and rest areas show that the function of the school's outdoor space is still not optimal. The outdoor space should be able to accommodate various children's activities, not only playing but also resting and learning informally. Designing a flexible outdoor space can provide a more diverse learning experience and support the needs of children as a whole. Overall, the results of the study show that the exterior design of Baitul Hijrah Binjai Kindergarten has great potential in creating an educational environment for early childhood. However, this potential has not been utilized to the fullest due to limitations in spatial planning, the use of environmental elements, and facility maintenance. With a more planned and child-oriented exterior design, the school environment can function not only as a playground, but also as a learning space that supports children's development holistically. (Aboed & Rahadian, 2025)

Limitations

This research has several limitations that need to be conveyed so that the research results can be understood proportionally. The first limitation lies in the scope of research which is only focused on one object of study, namely Baitul Hijrah Binjai Kindergarten. With limited object coverage, the results of this study cannot be generalized to all kindergarten schools with different conditions and characters. Each school has a unique environmental, social, and physical context so that the results of this research are more contextual. The next limitation relates to data collection methods that only use observation and documentation. The data obtained was based entirely on visual observations of the condition of the school's exterior design without involving interviews with teachers, school managers, or parents of students. As a result, this study has not fully described the perception and experience of space users directly. The subjective view of the space user can provide additional information more in-depth regarding the comfort and effectiveness of the school's exterior design.

In addition, this study did not conduct detailed technical measurements related to safety, thermal comfort, or lighting levels in the exterior area of the school. The analysis carried out emphasizes more on the description of physical conditions and spatial arrangement in general. This limitation causes the results of the study to not be able to quantitatively explain the level of safety and comfort of the school environment. Technical measurements can provide more objective supporting data in assessing the quality of exterior design. Another limitation is that this study does not directly examine the impact of exterior design on children's development over a certain period of time. The research only describes the existing conditions and potential of the school environment as an educational space. Changes in children's behavior, creativity, or motor development due to outdoor space arrangement cannot be measured directly. This makes the relationship between exterior design and child development still descriptive.

With these limitations, the results of this study are expected to be an initial overview of the arrangement of school exterior design in creating an educational environment. Further research is suggested to expand the object of study, add data collection methods, and conduct more in-depth measurements and evaluations. Thus, the study of school exterior design can make a more comprehensive contribution to the development of the early childhood education environment.

Conclusion

Based on the results of the research that has been carried out, it can be concluded that the arrangement of the exterior design of Baitul Hijrah Binjai Kindergarten has an important role in supporting early childhood play and learning activities. The existence of outdoor play areas is the main means for children to move, interact, and express themselves outside the classroom. The outdoor space of the school is regularly used in children's daily activities and contributes to the physical and social development of children. This condition shows that the exterior design of the school has great potential as an educational environment. However, this potential has not been fully utilized optimally because spatial planning is still basic. The outdoor space has not been planned as part of the learning process. As a result, the function of outdoor spaces is still limited to play activities only. In fact, outdoor spaces can be used more widely as an early childhood learning medium.

The results of the study also show that the available play facilities have been able to attract children's interest in outdoor activities. Toys with bright colors and simple shapes that suit the character of early childhood. However, the arrangement of play tools does not have a clear division of zones so that children's activities often overlap. The condition of the uneven playing surface and the limited supporting facilities show that safety and comfort aspects still need to be considered. In addition, the use of environmental elements such as vegetation is still passive. Plants have not been used as a learning medium for children. This shows that the exterior design of the school has not fully supported integrated learning. Improving the arrangement and utilization of outdoor space elements is important.

Overall, the exterior design of Baitul Hijrah Binjai Kindergarten has fulfilled its basic function as a children's play room, but has not fully played a role as an educational and child-friendly learning environment. It is necessary to develop a more structured, safe, and oriented design arrangement to the needs of early childhood. The development includes the arrangement of play zones, improving the quality of facilities, and the use of environmental elements as educational media. With better planning, the school's outdoor space can function not only as a playground, but also as a learning environment that supports the child's development holistically. An educational school environment is expected to be able to create a fun learning atmosphere. This can improve the quality of the early childhood learning process in a sustainable manner.

References

- Aboed, S. Z., & Rahadian, E. Y. (2025). Perancangan Bangunan Square Youth Hub Berbasis Arsitektur Modular di Kota Bandung. *E-Proceeding*, 3(1).
- Atmodiwirjo, P., Yatmo, Y. A., & Djuwita, R. (2022). *Arsitektur Sekolah yang Fleksibel Terhadap Perubahan*. Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.
- Bantali, A. (2022). *PSIKOLOGI PERKEMBANGAN: Konsep Pengembangan Kreativitas Anak* (N. Kholik, Ed.; 1st ed.). Jejak Pustaka.

- Bunawardi, R. S., Wikramiwardana, A. O., Ramadhani, S. Q., & Said, A. (2023). Penerapan Konsep Arsitektur Ramah Anak pada Desain Pendidikan Anak Usia Dini Holistik Integratif. *Jurnal Linears*, 6(2), 126–134. <https://doi.org/10.26618/j-linears.v6i2.12013>
- Diyanti, A. O., Amiuza, C. B., & Mustikawati, T. (2024). Lingkungan Ramah Anak pada Sekolah Taman Kanak-Kanak. *Jurnal RUAS*, 12(2).
- Dwi Ma'sum, R., Djau, R. A., Palilati, M. P., Rahman, A. W., & Arsitektur, P. S. (2025). DESAIN RUANG TERBUKA TAMAN RAMAH ANAK SEKOLAH PAUD MENARA ILMU KABUPATEN GORONTALO. *JAMBURA Journal of Architecture*, 7(1).
- Hamdani, N., Dwiputri, M., & Santosa, P. P. P. (2023). Perencanaan Konsep Desain Sekolah TK Al-Fath. *KANGMAS: Karya Ilmiah Pengabdian Masyarakat*, 4(2), 36–40. <https://doi.org/10.37010/kangmas.v4i2.1161>
- Hasibuan, R. H., Nurhasanah, Harahap, A. Z., Ningsih, A. D., Annisa, A., Bantali, A., & Gunawan, H. (2023). *Hasibuan, Rabitah Hanum*. Penerbit ADAB.
- Indrawanto, Denny, Rahmayanti, Apriyanti, R., Indriani, I. P. M., Apriyanto, Sjachrawy, L. O. M. I., Agusniansyah, N., Anantama, A. N., Rafi, A., Prasetia, A. M., Novalinda, & Nuraini, C. (2025). *Pengantar Arsitektur* (W. Yuliani, Ed.; 1st ed.). Lingkar Edukasi Indonesia.
- Juharida, A., Juwita, R. S., Mutiara, M. B. F., Wardiningsih. Sitti, & Darmawan, I. (2025). *Desain Arsitektur: Konsep dan Aplikasi*. PT. Bukuloka Literasi Bangsa.
- Ma'sum, R. D., Djau, R. A., Palilati, M. P., & Rahman, A. W. (2025). DESAIN RUANG TERBUKA TAMAN RAMAH ANAK SEKOLAH PAUD MENARA ILMU KABUPATEN GORONTALO. *JAMBURA Journal of Architecture*, 7(1).
- Muzakki, Aghnaita, Afifah, N., Hidayati, S., Aida, N., Satiah, L., & Ervina. (2024). PERENCANAAN DAN PERANCANGAN DESAIN EKSTERIOR ANAK USIA DINI. *JP2N*, 1(2), 95–102.
- Muzakki, Aghnaita, Setyaningsih, A., Hairunnisa, Norhikmah, & Pirasintiya. (2024). DESAIN EKSTERIOR PADA TK ISLAM NAHDHATUL ULAMA PALANGKA RAYA. *SIPISSANGNGI Jurnal Pengabdian Kepada Masyarakat*, 4(1), 49. <https://doi.org/10.35329/jurnal.v4i1.4794>
- Nabilah, D. P., Hardiyati, & Sumaryoto. (2020). PENERAPAN PSIKOLOGI ARSITEKTUR PADA PERANCANGAN SEKOLAH PENDIDIKAN ANAK USIA DINI DI SURAKARTA. *SENTHONG: Jurnal Ilmiah Mahasiswa Arsitektur*, 3(1), 166–177. <https://jurnal.ft.uns.ac.id/index.php/senthong/index>
- Ningsih, N., Siahaan, H., Mardiah, & Fadhilah, C. R. (2025). ANALISIS DESAIN INTERIOR DAN EKSTERIOR DALAM MENGEMBANGKANN KECERDASAN NATURALIS PADA ANAK KELOMPOK B 1 DI RA AS-SYAFIQAH KOTARIH BARU KABUPATEN SERDANG BEDAGAI. *Hibrul Ulama: Jurnal Ilmu Pendidikan Dan Keislaman*, 7(1).
- Purnama, S., Jannah, R. R., Jazariyah, & Sabi'ati, A. (2020). *Desain Interior dan Eksterior Pendidikan Anak Usia Dini* (R. R. Jannah, Ed.; 1st ed.). Pustaka Egaliter. www.pustakaegaliter.com
- Rozana, S., & Bantali, A. (2020). *Stimulasi Perkembangan Anak Usia Dini: Melalui Permainan Tradisional Engklek* (N. Kholik, Ed.; 1st ed.). Edu Publisher.
- Sriwanto, W., HK, M. N., & Juliadi, Y. (2024). Konsep Pengelolaan Desain Lingkungan Pendidikan Anak Usia Dini. *Jurnal Pendidikan Islam Al-Affan*, 4(2). <http://ejournal.stit-alquraniyah.ac.id/index.php/jpia/>

- Suhardi, Rachman, S. A., Salsabila, N., Syahrani, S., & Febriyanti, U. F. (2024). Manajemen Sarana dan Prasarana PAUD untuk Mendukung Proses Pembelajaran. *Jurnal Pendidikan Tambusai*, 8(2), 31077–31087.
- Sutanto, A. (2020). *Peta Metode Desain*. Universitas Tarumanagara.
- Suyanta, Darmono, Prianto, E., Subiantoro, A. W., D., W. S. B., Marwati, Wardoyo, S., & Syauqi, K. (2018). *Desain Pengembangan Fasilitas Sekolah Di Era Revolusi Industri 4.0*. Direktorat Pembinaan Sekolah Menengah Kejuruan.
- Waskitaningtyas, K., & Supriyanto, E. (2023). *Dasar-Dasar Desain Pemodelan dan Informasi Bangunan* (N. Jannah, Ed.; 1st ed.). Kementrian Pendidikan, Kebudayaan, Riset, dan Teknologi. <https://buku.kemdikbud.go.id>
- Wibowo, M. C. (2023). *Teori Desain Arsitektur Lanskap*. Yayasan Prima Agus Teknik Dan Universitas Sains & Teknologi Komputer.