

Mural Paint Painting on the Walls of the Classroom of PAUD Kartini, North Jakarta Using Safe and Environmentally Friendly Paint

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ABSTRACT

In general, the interior of the PAUD classroom has mural paintings on the walls that are educational, cheerful and colorful so as to create a fun, comfortable learning environment and increase creativity. However, there are still early childhood classroom interiors that do not have mural paintings, one of which is the interior of Kartini's PAUD classroom in North Jakarta. Therefore, lecturers and students of the UKI Architecture Study Program carry out community service at PAUD Kartini so that the interior of the PAUD Kartini classroom has mural paintings on the walls with an educational, cheerful and colorful theme so as to create a fun, comfortable learning environment and increase creativity. The method is to conduct a survey to PAUD Kartini, then coordinate with the North Rawa Badak Village Head. The results are expected to create a fun, comfortable learning environment and increase creativity for Kartini PAUD classroom users.

INTRODUCTION

PAUD Kartini in North Jakarta is an early childhood education institution that provides educational services located in Rawa Badak Utara Village, North Jakarta where PAUD Kartini is quite active in various community activities.



Figure 1. Location of PAUD Kartini

PAUD Kartini is one of the institutions that has a high commitment to quality education, but is still limited in terms of learning support facilities. PAUD Kartini only has 1 classroom located on the 1st floor of the Rawa Badak Utara Village Office.



Figure 2. Densely Populated Neighborhood Around the North Rhino Rawa Area



Figure 3. Densely Populated Neighborhood Around the North Rhino Rawa Area

The condition of the classroom that is not stimulating and the lack of creativity facilities are the main challenges in optimizing the development of Kartini PAUD students who are children of residents in Rawa Badak Utara Village where their parents are on average from low-income communities. In addition to learning support facilities, creativity is also needed in creating a visual classroom learning environment that can stimulate the imagination and creativity of PAUD students in a sustainable manner.

Based on the identification of needs in the field carried out through observation activities, it was revealed that the assistance needed was in the form of mural painting with creative elements that could optimize children's development. Mural is a mural derived from the word 'murus' which comes from Latin which means wall (Yogyakarta, 2018). Murals can be interpreted as large paintings made on walls (interior or exterior), ceilings, or other flat planes to support architectural spaces which are also a form of art, or more precisely painting (Nababan, 2019).

The theme of the mural painting that will be taken is a theme related to architecture in order to simultaneously introduce architecture and the architectural profession to PAUD Kartini students from an early age. Because the prospective user of the space is an early childhood education student, it is recommended that the paint used for the interior of the mural is a paint that is safe for children and environmentally friendly. Paint is the most popular wall and ceiling coating material (Interior & Multimedia, n.d.). In ancient times when paint was first produced, paint still had a natural level, although it still contained harmful substances such as lead.

Synthetic paints, such as latex or emulsions, contain a high proportion of plastic substances. When this synthetic paint is applied to the wall, it will automatically be coated with a plastic substance that makes it difficult for the wall to 'breathe'. The plastic contained in this synthetic paint is a rodent substance, which means that dust and bacteria are easily attracted to the surface of the wall, or ceiling. Behind all the advantages of paint, such as easy to apply, quick drying, and a variety of colors and textures, there are three important things that need to be considered, namely: the effect of paint on human health, the substances that make it up, and the final place of disposal. The solution to keep the walls and ceilings of the house environmentally friendly is to use natural-based paints such as oilbased paint, water-based paint, and clay paint.

Eco-friendly paints generally have a Singapore Green Label certificate where the certificate is a Green Label certificate recognized and granted by the Singapore Environment Council (SEC) for environmentally friendly, health-safe, and hazardous substance-free products.

Therefore, lecturers and students of the UKI Architecture Study Program carry out community service at PAUD Kartini so that the interior of the PAUD Kartini classroom has mural paintings using environmentally friendly paint so that it is also safe for space users, namely PAUD students. PAUD Kartini is located on the 1st floor of the Rawa Badak Utara Village Office, North Jakarta which was established at the end of 2022. Kartini's PAUD classroom is still relatively new, the color of the walls is plain beige so there are no mural paintings on the wall so that her creativity in creating a learning environment in the classroom visually can stimulate the imagination and creativity of PAUD students in a sustainable manner.

Early childhood education is highly dependent on an environment that supports the physical, emotional, and social development of children. A comfortable and fun classroom can be key to creating an effective learning atmosphere. In this case, classroom design that takes into account psychological factors, such as color selection and the division of activity zones, plays an important role in stimulating children's creativity and social interaction (Sapcahadi et al., 2025).

Architectural psychology is important to be used as a design approach method in early childhood education and elementary school, because it has the carrying capacity of psychology in creating a built environment, which is able to produce responses in the form of desired behaviors in the form of development in accordance with characteristics (Oetami et al., 2025). Factors that affect the psychology of the room to the comfort of its users that will be discussed include direct and indirect factors.

Direct factors such as the condition of the furniture that is directly related to the user, the condition of the spatial arrangement to the user, the visual factor of the space to the user



Figure 4. Interior of the Kartini Early Childhood Classroom

From the documentation above, it can be seen that the Interior of the Kartini PAUD Classroom requires mural paintings that are able to develop creativity so that they can create a learning environment in the classroom visually that can stimulate imagination and creativity, and make an inspiring and educational learning environment for PAUD students in a sustainable manner that can increase the comfort of the teaching and learning process as well as be able to

convey messages through paintings wall so that PAUD children can be introduced to architecture and the profession of architect from an early age.

Therefore, with the existence of a Community Service activity entitled Green Action 39 Painting Mural Paint on the Walls of the Classroom of PAUD Kartini, North Jakarta Using Safe and Environmentally Friendly Paint, it is hoped that it can create an optimal classroom interior to support the psychological development of children.

IMPLEMENTATION AND METHODS

The methods in the Community Service Program (PKM) of the Architecture Study Program, Faculty of Engineering, Christian University of Indonesia entitled Green Action 39 Painting Mural Paint on the Walls of the Kartini Early Childhood Classroom Using Environmentally Friendly Paint are as follows:

1. Made a Coordination Meeting of the PkM Team including Students to discuss matters or preparations for coordination to the Village Head, PAUD Teacher Kartini in Rawa Badak Utara Village.
2. Made a coordination meeting with the Village Head, the Principal, Kartini PAUD Teachers and the mother of PAUD of Rawa Badak Utara Village and their staff.
3. Conduct surveys and documentation.
4. Preparing paint and mural painting equipment where the product is an environmentally friendly product, namely aviand brands. Cat Avian Brands is a paint brand that is classified as environmentally friendly. Many of its products are water-based, low VOC (Volatile Organic Compounds), and have Green Label Singapore certification. Avian also achieved Green Proper from the Ministry of Environment and Forestry and green industry certification, demonstrating its commitment to reducing waste and hazardous materials
5. The theme that will be taken in mural painting is to introduce the world of architecture and the architectural profession from an early age. The theme raised in the mural painting is "Me and the World of Architecture", which aims to introduce the world of architecture and the architectural profession from an early age through a visual approach that is cheerful, educational, and child-friendly.



Figure 5. Mural Visual Concept Ideas



Figure 6. Alternative Mural Visual Concept Ideas

6. Carrying out Community Service activities is doing mural activities for a duration of 3 days with techniques as shown in the table below.

Table 1. Activity Plan

| No | Day/Stage | Activity Description | Insurer Answer |
|----|-----------------------|---|---|
| 1 | Day One | <ul style="list-style-type: none"> Initial technical coordination on site - Cleaning and preparation of wall surfaces. Covering the floor and furniture with a shield - Basic sketching of the mural on Walls. | Team Leader, Lecturer, Students |
| 2 | Day Two | <ul style="list-style-type: none"> Base coat using water-based eco-friendly paint. Coloring of the main elements of the mural according to the design concept. Color quality control and Visual composition. | Team Leader and Students |
| 3 | Third and Fourth Days | <ul style="list-style-type: none"> Enhancement of image details and outlines. Protective finishing and coating (low VOC clear coat). Documentation of the results of the activity. Surrender Symbolic Acceptance to PAUD Kartini and the Village. | Team Leader, Student, Partner |
| 4 | Day Five | Closing of the PkM Activity which was filled with remarks from the North Rawa Badak Village Head and the Head of the PkM team, Presentation of Plaques, souvenirs and certificates, group photos | Team Leader, PAUD Kartini Children, Rawa Badak Utara Village Head, PAUD Teacher KArtini |

RESULTS AND DISCUSSION

The Community Service Implementation Team (PKM) of the Architecture Study Program, Faculty of Engineering, Universitas Kristen Indonesia entitled Green Action 39 Painting Mural Paint on the Walls of the Kartini Early Childhood Classroom Using Environmentally Friendly Paint made a description of the activity with the following details:

Location survey

Before carrying out the activity, the team conducted a survey first to the location of PAUD Kartini accompanied by the Village Head of Rawa Badak Utara Village.



Figure 7. Photo with the Village Head After the Survey

The team documented and re-measured the location of Kartini's PAUD classroom.



Figure 8. Existing Kartini PAUD Classroom

After re-measurement, information was obtained on the size of the Kartini PAUD classroom with a size of 4.5 m x 6 m (area of about 26 m²) as shown below (Figure 9).

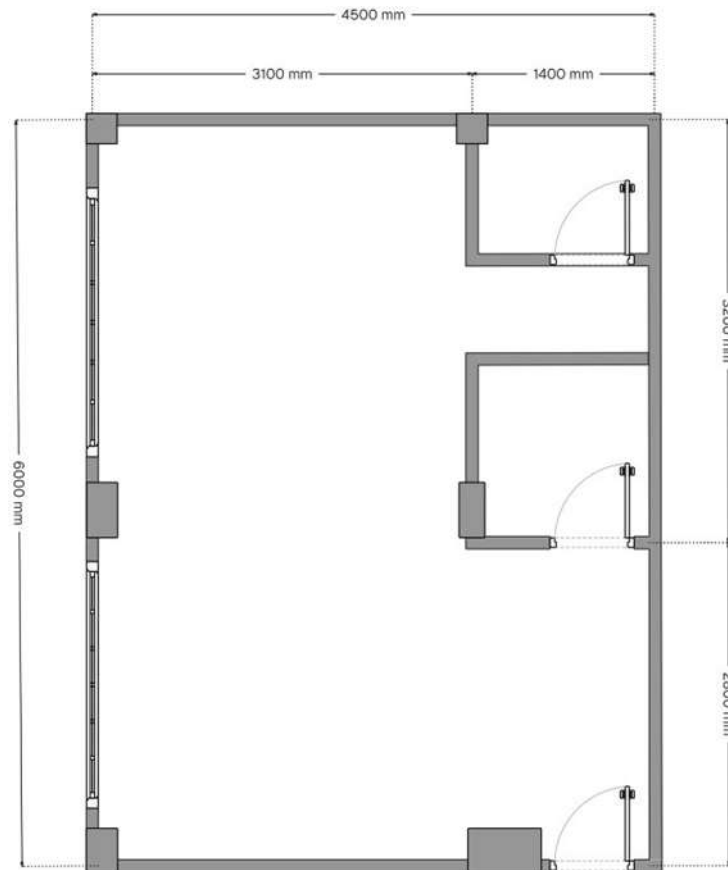


Figure 9. Kartini PAUD Classroom Plan

Purchase of Paint and Paint Equipment

Before the implementation and realization of the mural paint design begins, the implementation team buys paint and paint equipment first. The paint chosen is avian interior brands for the reason that Cat Avian Brands is a paint brand that is classified as environmentally friendly and relatively affordable. Many of its products are water-based, low VOC (Volatile Organic Compounds), and have Green Label Singapore certification. Avian also achieved Green Proper from the Ministry of Environment and Forestry and green industry certification, demonstrating its commitment to reducing waste and hazardous materials. Then the implementation team buys paint equipment in the form of brushes, erasers, double tape, brushes, and paint tubs.



Figure 10. Paint and Paint Equipment

Implementation and Realization of Mural Design

The process of implementing and realizing mural design consists of several stages, including the following:

- a. Make several sketches of ideas in the form of A4 form paper in accordance with the specified theme, namely the introduction of the architect profession from an early age, then the sketch of the idea is printed/printed.



Figure 11. Print Out Some Sketches of Ideas

- b. Next, the sketch of the idea was drawn on the wall of the PAUD classroom using a pencil, then continued with painting.



Figure 12. Sketching and Painting Process

The results of the mural on the wall of the PAUD classroom are as follows:

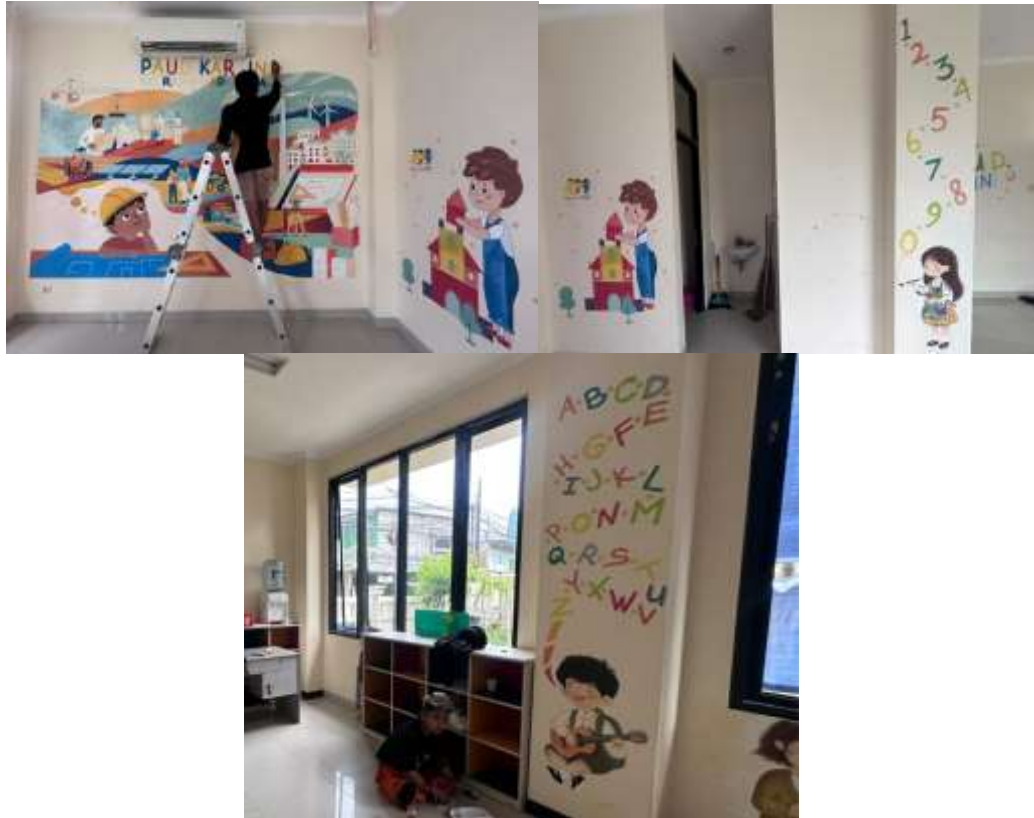


Figure 13. Mural Painting Results

Closing of Activities

After the drawing and painting of the mural was carried out in 4 days, the Implementation team closed the activity in the PAUD Classroom on Wednesday, June 17, 2026 at 09.00 WIB until it was completed. The closing activity was filled with remarks from the North Rawa Badak Village Head and the Head of the PkM team, the submission of plaques, souvenirs and certificates, the distribution of hampers and photos with the children of PAUD Kartini.



Figure 14. Photo with Kartini PAUD Children, along with the Village Head and Staff

As a form of appreciation to the PkM implementation team, the North Rawa Badak Village Village gave certificates of appreciation to the entire PkM implementation team.



Figure 15. Awarding of Certificates given to the Implementation Team

CONCLUSIONS AND RECOMMENDATIONS

The Community Service activity entitled Green Action 39 Painting Mural Paint on the Wall of the Kartini PAUD Classroom Using Environmentally Friendly Paint proves that the existence of murals in the Kartini PAUD Classroom can be an effective visual communication medium for the introduction of the architect profession from an early age, so that PAUD children can make architects their dreams in the future. Murals in the Kartini PAUD Classroom can also change the plain wall area to be more cheerful and colorful so that it can create a visual learning environment in the classroom that can stimulate imagination and creativity, and make an inspiring and educational learning environment for PAUD students in a sustainable manner that can increase the comfort of the teaching and learning process. In addition, it can also create an optimal classroom interior to support the development of early childhood psychology. The paint selected is the Avitex Gold brand, which holds the Green Label certification recognized and awarded by the Singapore Environment Council (SEC) for products that are environmentally friendly, safe for health, and free from hazardous substances. Furthermore, Avitex Gold has a Domestic Component Level (TKDN) of 50.03%, a figure that exceeds the minimum requirement of 25%. Rawa Badak Utara Village Head said that this activity was beneficial and added cheer to the Kartini Early Childhood Education (PAUD) classroom.

An evaluation conducted after the mural's completion demonstrated its positive impact on the Kartini Early Childhood Education (PAUD) classroom, creating an engaging and cheerful learning environment. Therefore, utilizing the walls for murals in the Kartini PAUD classroom serving aesthetic purposes, introducing the architectural profession at an early age, and fostering a comfortable, eco-friendly atmosphere has proven to be beneficial in both visual and educational terms.

ACKNOWLEDGMENT

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REFERENCES

- Interior, J. D., & Multimedia, F. K. (n.d.). MATERIAL RAMAH LINGKUNGAN UNTUK INTERIOR RUMAH TINGGAL PEMBAHASAN Lantai. 2(9), 704-713.
- Nababan, R. S. (2019). Karya Mural Sebagai Medium Mengkritisi Perkembangan Jaman (Studi Kasus Seni Mural Karya Young Surakarta). International Conference on Art, Design, Education, and Cultural Studies (ICADECS), 2019.
- Oetami, C. D., Suparman, A., & Tohjiwa, A. D. (2025). Penerapan Psikologi Arsitektur pada Desain Interior TK Masakecil : Pengaruhnya terhadap Perkembangan Kognitif Anak Usia Dini. 2020, 75-82.
- Sapcahadi, M. A., Febri, S., Arsitektur, P. S., & Selatan, T. (2025). Tinjauan Pustaka Ruang Kelas Anak Usia Dini Psikologi Arsitektur. 30(2), 112-118.
- Yogyakarta, U. D. I. (2018). SENI MURAL : EKSPRESI TRANSIT DAN TRANSISI MASYARAKAT. 211-216.