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Journal of Interior Design, Art and Culture

Interior Design of Daycare Center with Playful Concept in Salatiga

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ABSTRACT

Along with the rise in career women, the community is seeing an increase in daycare centers to prevent child abuse and provide early childhood education. Language skills, character development, creativity, and motor skills are all part of this education. However, most daycares, particularly those for youngsters, place less emphasis on amenities and infrastructure. Many daycares have not followed the rules. As a result, a concept arose for a Daycare Center with a Playful Concept in the City of Salatiga, complete with an Infant Room, Playground, Classroom, Sleeping Room, Canteen, and Office.

1. Introduction

The development of technology and information makes the pattern of life in developed countries increasingly penetrated in eastern society. For example, at this time women have a double burden, not only as housewives but also as career women. The existence of economic demands makes the roles of women and men equal (Santoso, 2020).

Being a mother as well as a career woman admits that she doesn't have time to take care of their children. So that parents decide to leave their children in a daycare canter because it prevents violence and trafficking in children. Therefore, as career women increase, Daycare Center enthusiasts also increase among the community. The daycare center is not only for child care, but also provides education at an early age (Yüksel & Sazcı, 2015). This is one of the government's concerns regarding the importance of child education at an early age.

The Indonesian government is trying to improve children's morale through a Presidential Regulation that implements early childhood development with education for spiritual and physical needs (Nadia Rizka, 2017). This education is also found in daycare which provides great benefits including improving language skills, character building, developing creativity and motor skills, and helping to improve children's health (Suptandar, 1982).

Daycare must have appropriate, facilities, and infrastructure for children (de Souza Morais et al., 2021; Hwang et al., 2017). However, many daycares are less literate in this regard. One of them is a daycare in Salatiga. From research conducted by Ajeng Ayu in 2018, it shows that the existing daycare is not fully following the standards. For example, Bright Minds Salatiga Child Care Park (TPA), in this TPA the lack of attention to child safety in terms of layout and furniture, inappropriate interior design makes it difficult for adults to supervise children's activities, use of facilities is not following the age division of children and there is no concept which is evident in the interior of the landfill (Sugeng et al., 2020). Though the concept of the interior can be one of the supporters for the development of children's intelligence indirectly.

For this reason, based on the existing problems, Daycare Center facilities and infrastructure are needed as child care based on education and recreation with the Playful concept. (Ward Thompson, 2013)

2. Method

The design process for the Daycare Center interior design project in Salatiga is carried out by referring to scheme 1.

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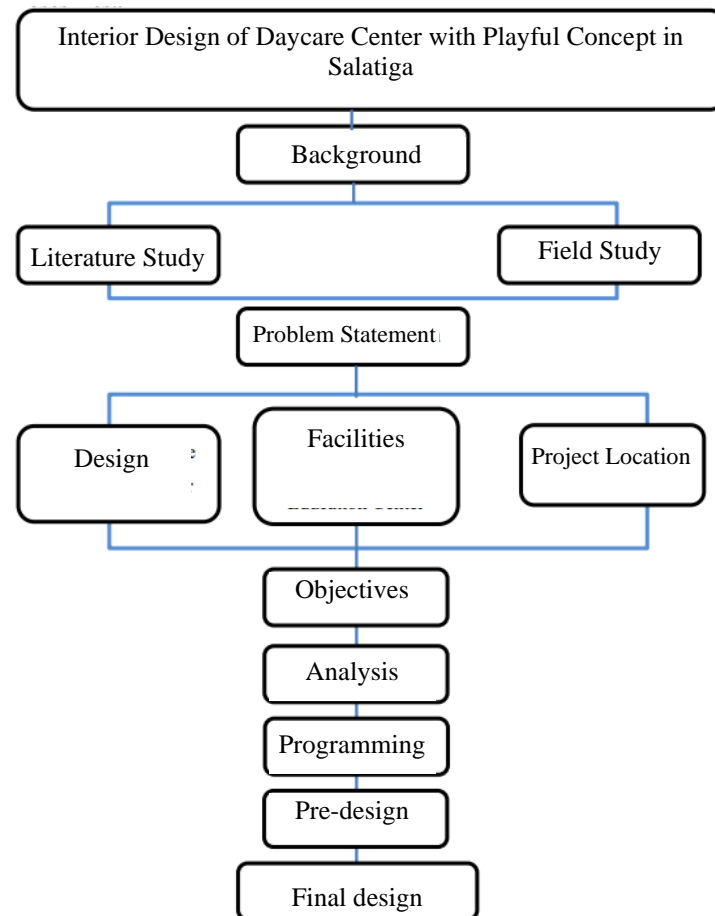
Fig. 1. Design Process

The methodology that will be used as the basis for the preparation to achieve results following the objectives of the Day Care Playful interior design is:

2.1. Programming

- Surveys
  Collecting data on objects related to user activities, space requirements, and required facilities.
- Interview
  Interviews were conducted to obtain data directly from those concerned such as stakeholders, managers, and users.
- Questionnaire Development
  Questionnaires were distributed to obtain the latest data regarding user perceptions in the form of existing facilities.
- Observation
  Observations were made to obtain field data related to similar facilities that already existed and to identify the atmosphere caused.
- Documentation
  The form of taking pictures using a camera or sketch images in spaces that are not allowed to be immortalized with equipment.

2.2. Data Analysis

The data that has been obtained is then analyzed to prepare a schematic concept consisting of: (a) Zoning; (b) Grouping; (c) Room size; (d) Room orientation; (e) Circulation flow; (f) Patterns of relationships between spaces

2.3. Design Development.

Ideas After the schematic design is made, the next step is to explore ideas visually. This exploration is done to get a specific view of the interior design or interior elements. This stage is what distinguishes the visual appearance of the design on this project from other designs. It can also be said that this stage is the "essence" or "spirit" of the overall design which will later be represented in the term "atmosphere". "theme", or style. This Daycare Center project was developed through the Playful design concept. This concept is taken, it is hoped that children will become more active, imaginative, and creative.

2.4. Design Method.

It is a method used by designers to realize ideas. at this stage, the design development will be realized using freehand media or sketches and computer media in the form of Sketch Up / 3d Max. these steps are as follows: (a) Sketching interior and furniture drawings using freehand with paper and pencil media; (b) Sketch with a computer with Sketch Up or 3D Max media; (c) Make various variations of shapes and colors from space elements as well as several alternatives; (d) Select and apply materials; (e) Choose an alternative design that will be consulted with the project supervisor.

3. Results and Discussion

Programming
3.1.1. Project Definition

The interior design of the Daycare Center in Salatiga is a public building as education-based child care with a playful concept that is expected to increase children's creativity and innovation. Daycare or known as Child Care Park (TPA), as stated in the Technical Guidelines for the Implementation of Child Care Parks (Jakarta: 2010) is a form of PAUD on non-formal channels as a forum for welfare that aims to replace the role of parents in a certain period for children. whose parents work. Daycare provides educational programs as well as care and social welfare for children from the age of 0 to the age of 6 years (with priority ages 4 years and under) (Catalina,2016).

Ergonomics, according to the Ministry of Education and Culture (Melani & Sari, 2015), furniture is an important requirement for learning activities in kindergarten. The type and size of the furniture is adjusted to the implementation needs of kindergarten educators and students. Furniture (tables, chairs, storage shelves / lockers) should be painted in an attractive light color or with regular polish. The recommended furniture sizes are: Children's table size p = 120cm, l = 75cm, t = 47-50cm Children's chair size p = 32-35cm, l = 27-30cm, t = 30cm Storage rack / locker p = 30cm, l = 30cm, h = ±100cm.

Playful, according to Aji Wahyu (2017), the Playful concept tells something unique, creative, interesting, colorful, fun, and imaginative. The application of this design aims to encourage residents to think creatively and innovatively with the psychological influence of bright and colorful colors. Playful can also be implemented with varied forms in the formation of building interior elements. Because the majority of the residents are children, who have very high creativity, every room is strived to create a different space experience to avoid boredom.

Characteristics of the Playful concept: (a) Dare to combine several colors that are opposite or derivative in their application in the interior of the building; (b) Thematic designs on each area; (c) Usually, this concept is also applied to making simple signage to show the direction or function of a room. The design doesn't just play with color processing, but can also be projected into paintings or murals on walls, ceilings, and even floors.

3.1.2. Facilities, Services, and Users

Daycare is a daycare facility that provides services for children in the form of education and recreation. So that everything related to the growth and development of children will be provided in this place. In this place, many facilities support the process of improving the quality of both education and recreation for children. The facilities provided include: (a) Provide a lobby as a place for public administration; (b) Provide a playground as the main place for children to play; (c) Provide a sleeping area as a place to rest or take a nap for children, both infants, and toddlers; (d) Provide classrooms as the main place of education; (e) Provide a room for caregivers as well as teachers; (f) provides a dining room as a place for making milk and lunch; (g) Provide a meeting room as a place for teacher discussion.

Services in daycare have a main point, namely as child care or as a substitute for parents who must provide comfort and security in caring for children. The services provided are in the form of the role of the teacher who will educate cognitively and actively. Then there are doctor services for children and mothers, nanny services as a companion for children when playing, studying, and resting. This daycare

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Journal of Interior Design, Art and Culture
ISSN 2086-8138 (print) | 2745-7249 (online)

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center has the following operational conditions: (a) Operating days: Monday – Saturday; (b) Closed on Public Holidays; (c) Operating hours: 07.00 – 17.00.

Users of this Daycare are limited to children, aged 0-6 years or pre-schoolers. Both men and women. The facilities provided are limited to children before entering formal school. In addition, there are officers and managers as regulators of the daycare facilities such as teachers, caregivers, and doctors.

3.1.3. Assumed location

Preferred Location: Zam-Zam Supermarket Salatiga. Jl. Patimura No.43, Salatiga, Kec. Sidorejo, Salatiga City, Central Java

Fig. 2. Location map *(Source: Google Maps)*

Site Limits, north side bordering SMP 4 Salatiga, east bordering shops; west   bodering part of SMP 4 Salatiga; south bordering shops. Site selection analysis: *Peraturan Daerah Kota Salatiga : PASAL 61 (2) Kawasan strategis pendidikan berada di Sidorejo, Blotongan dan Pulutan.*

- Accessibility .
  Consideration of project site selection is because the project location is strategically located and easily accessible. the project location is near the Patimura highway, which is a city route that is often traversed by the community. The project location is not far from malls, shophouses, offices, and housing. The location is very suitable for daycare locations because it is in a work center area. So if parents want to work not far from their work location.
- Surrounding.
  Further consideration of environmental aspects. Although this location is in the middle of an urban area, this location is in an educational area. So that educational activities become conducive. Even though it is one of the city lanes that is often passed by the community when the vehicles that pass are classified as lower middle class. So that pollution and vehicle noise does not interfere with the education process.

3.1.4. Patterns of Relationships Between Spaces

Figure 3 depicts the pattern of inter-space relationships in the Interior Design of Daycare Center with Playful Concept in Salatiga:

Fig. 3. Patterns of Relationships Between Spaces.

3.1.5. Zoning

Figure 4 shows the segmentation of an area or space into multiple zones based on their functions and characteristics.
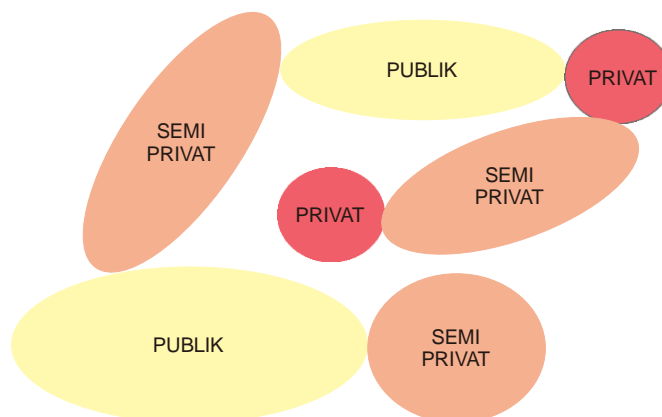

Fig. 4. Zoning

3.1.6. Grouping

As indicated in Figure 5, the space grouping is divided into seven categories.
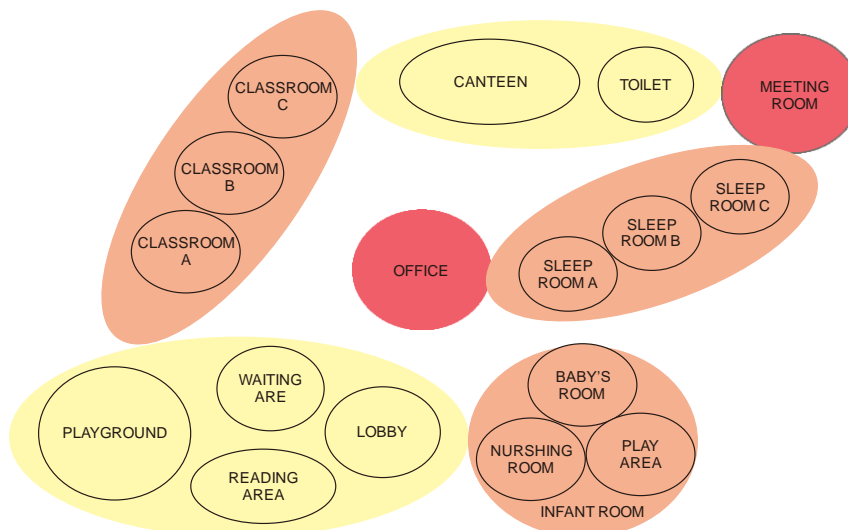

Fig. 5. Grouping

Concept
3.2.1. Ideas

The Daycare Center, which is located in Salatiga, has an interior planning plan that includes a lobby room, classrooms, bedrooms, playground, dining room, and teacher's room (Scharp et al., 2019). The interior design took the idea of Playful (Thoring et al., 2018). Playful itself tells something unique, creative, interesting, colorful, fun, and imaginative. For that, from some of the literature that has been described above, the Playful concept can be applied to children. Considering Playful is one of the children's characters. this concept can be applied by using cheerful and varied colors, it would be better if the application of these colors is following the age category of the child. The use of cheerful colors is expected that children will feel happy, and enthusiastic (Kuzinas, 2013; Plass et al., 2020). Then use dynamic, asymmetrical, and varied forms. In addition to symbolizing an active child, this design adds to the child's curiosity. Furthermore, the rooms are created thematically using each room having a different color dominance or character (Joh & Spivey, 2012) . This will also at the same time be a signate of a room. Not only color games, but murals and character images can also be applied for accents and one of the children's learning media.

To eliminate boredom in children and accommodate the nature of children who still love to play, added games or mini-games in the interior design, and there is also a main game vehicle or playground

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Journal of Interior Design, Art and Culture
ISSN 2086-8138 (print) | 2745-7249 (online)

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(Hammershøj, 2021). With that, it is hoped that it can stimulate children's motor skills. besides that, you can also add plant accents as a refresher to create a fresh and anti-stress atmosphere.

It is hoped that the application of the Playful idea above will make the child feel comfortable. So that children can learn to the maximum and can be a stimulus for children to be more cheerful, active, imaginative, and creative.

3.2.2. Theme

The theme chosen in the interior design of this Daycare Center is modern. With this theme, it is hoped that it will create a modern atmosphere that is following the behavior and characteristics of children. According to Lamudi (2013), in general, the characteristics of modern architecture can be seen from its asymmetrical shape, flat roof, box shape, curved and smooth corners. Modern interiors also often appear efficient, a little ornate. In addition, the rooms in modern homes are found to be connected without a barrier.

3.2.3. Ambiance

Aspects of the atmosphere to be realized and achieved from the kindergarten school is an atmosphere that is cheerful, happy, and excited, not only requires beauty but also requires a creative environment. They are more interested in what they see and this is a very important learning process, closely related to the developmental stages of children who are still more interested in something visual in a way that is fun for children. The child's need for space is based on the need for psychological and physical development.

Thus, it takes the quality of the interior space that is adequate and under the needs for the development of the child's creativity. Children's needs in physical space must be able to accommodate or accommodate all activities that drive their creative process, starting from the initial stage, preparation, exploration to the final stage of verification or evaluation. Space must be able to accommodate all the activities mentioned above and not stop at the stage of the idea generation process along with the psychological processes that initiate and follow the emergence of new inspiration or ideas, but space must also be able to accommodate activities to turn ideas into real creative products.

3.2.4. Spatial Planning

In the spatial arrangement of the Daycare Center in Salatiga, it is based on considerations: (a) Space Activities; (b) Space Function; (c) Room Size; (d) Space Orientation. Public space, can be reached by all visitors and Daycare Center managers (general or public) are the lobby, playground, and dining room or canteen. Semi-Private, this can be reached by interested visitors (special) and Daycare Center room managers, including classrooms, bedrooms, and nursing rooms. Private, only accessible by the manager is the service office. Service, in the form of a room that is a facility for the benefit of defecation for all visitors and Daycare Center managers (public or public) such as toilets.

3.2.6. Shape, Color, Material

- Floor .

  The floor used in the Daycare Center uses soft material, able to muffle sound and warm. In addition, the character of the floor material is not slippery and does not cause light reflections. These materials include parquette, rubber, and vinyl.

- Wall.

  Use walls that do not make the room damp. Then use a finishing wallpaper that has images that can stimulate children's imaginations such as pictures of flora and fauna (Moriya et al., 2021). In addition, the walls also use attractive colors for children.

- Ceiling.

  The roof is not only a cover for the room but also an air conditioner. The roof of this Daycare Center uses gypsum, lambersering, and PVC roofs. Ceiling processing can be done with shapes such as clouds, flowers, and plants.

Fig. 6. Ceiling *(Source: Google)*

3.2.5. Efficiency

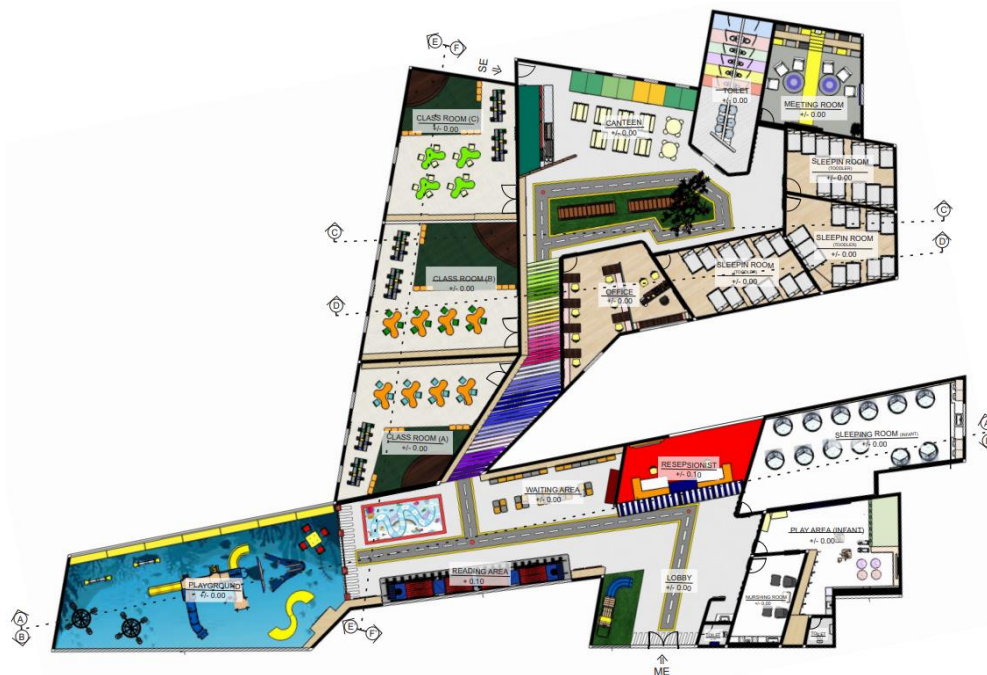The layout of the Daycare Center Interior Design with a Playful Concept in Salatiga can be seen in Figure 7.

Fig. 7. Layout

3.2.7. Interior System

Lighting, lighting has a very important role in the interior design of a space. There are 2 types of lighting in the playing area, namely natural lighting and artificial lighting (Vásquez et al., 2019). Natural lighting is obtained from sunlight that penetrates the glass/tempered glass walls and several windows. Then for natural lighting use spotlights because the ceiling is far from the floor as general lighting and some additional lights such as downlights, pendant lights, and TL lights.

Ventilation, the ventilation system in this Daycare Center has two systems, namely natural and artificial ventilation. Natural ventilation is obtained from the openings of both doors, windows, and ventilation. Natural ventilation is needed to allow for the entry of fresh air. For artificial ventilation using AC and exhaust (Harbizadeh et al., 2019).

Acoustic, serves to be able to reduce noise generated with a noise level requirement of 60 dB. Acoustic control can be done in addition to using materials that can muffle sound also through the use of plants. Such as planting hedges or vertical gardens on the side adjacent to the center of the noise (Givoni, 1991), you can also take advantage of the use of wood and carpet materials, as well as textured floors, walls, and ceilings.

Security, security systems are important for the safety and comfort of visitors. At this Basketball Center, there are several security tools such as CCTV, fire detectors, fire extinguishers, and sprinklers at several points.

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Journal of Interior Design, Art and Culture
ISSN 2086-8138 (print) | 2745-7249 (online)

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3.2.8. Facility

- Lobby.

    The lobby has receptionist facilities to welcome guests as well as a place to administer the children who want to be deposited in the daycare. The front section is equipped with mini-games that children can use. See on figure 8.

Fig. 8. Lobby.

- Waiting Area.

    The waiting area is used for parents who want to wait for their children while they are doing the learning process in class. See on figure 9.

Fig. 9. Waiting Area.

- Reading Area.

    This area is used by children to read with the concept of a train as a form of furniture. This area is located in front so that all users both students and guests can access it easily. See on figure 10.

Fig. 10. Reading area.

- Playground.

This area is the main place for children to play with the pirate's concept. This area is also located in front so that all users can access and parental supervision of children can be done easily.

- Class Room.

The classroom is equipped into 3 main areas: a formal area for children to learn to use tables and chairs, an art area for children to do art activities such as painting, and an active area for children to do activities such as dancing, which is equipped with mini stage facilities.

Fig. 11. Class room.

- Canteen.

This area is a facility for children to have lunch at the daycare. This area is not only for children but also for adults and guests who want to enjoy the food available.

Fig. 12. Canteen.

- Meeting Room.
This meeting room is used when the teacher or caregiver wants to hold a meeting or meeting

Fig. 13. Meeting room.

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Journal of Interior Design, Art and Culture
ISSN 2086-8138 (print) | 2745-7249 (online)

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- Sleeping Room.
  This bedroom is used by the children when they take a nap in this daycare

Fig. 14. Sleeping room.

- Infant Room

  This infant room is specifically for children aged 2 months to 2 years. This room is divided into 3 main areas, namely: a bedroom equipped with a diapers area, a nursing area for mothers who want to breastfeed their children, and a play area for children to play.

Fig. 15. Infant room.

4. Conclusion

The interior planning and design of this Daycare Center function as an education-based daycare center for early childhood. Usually during working hours for children aged 0-6 years. Designed using the Playful concept with unique, dynamic, colorful, and varied characters. In this Daycare Center, there are lobby rooms, infant rooms, waiting rooms, reading rooms, playgrounds, classrooms, canteen rooms, bedrooms, office rooms, and meeting rooms. Each room has a different theme so that it presents its atmosphere and experience. This project is expected to be a daycare center that can trigger children to think creatively, innovatively, and imaginatively. So that children's growth and development both intelligence and emotional can develop well.

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