

Research Article

Optimizing Interior Design for the Girls' Dormitory at an Islamic High School in West Java

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ABSTRACT

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Dormitories for girls at the secondary education level require facilities that are suitable for the needs of girls aged between 12 and 18 years. This research aims to determine the optimal spatial layout for girls' dormitories, based on the space requirements for both main activities and supporting activities, using a sample of five boarding schools in West Java. The research employs a qualitative descriptive method that commences with data collection through surveys, observations, and a review of relevant literature pertaining to dormitories. This research not only begins by analyzing the existing spaces but also delves into factors influencing the presence of these spaces, specifically examining the availability of dormitory, and supporting room facilities through the assessment of suitability using a survey checklist of various variables. The results indicate that different space optimization patterns were observed in the five boarding schools, which depended on the management concept of each dormitory. These patterns were adjusted to the existing conditions of the dormitory, considering the adaptation and utilization of available spaces. In general, all dormitories have met the standards and space optimization patterns according to the criteria set by each dormitory manager. Consequently, further research is warranted, particularly in relation to the management concept and the spatial arrangement based on the dormitory's brand identity.

1. INTRODUCTION

The existence of Islamic boarding schools is acknowledged and regulated by Undang-undang No. 20 of 2003 concerning the National Education System. Islamic boarding schools typically comprise several buildings, including mosques, school buildings, and dormitories. The primary objective of education in Islamic boarding schools is to nurture and develop individuals with Muslim character, akin to the Prophet Muhammad SAW, who are independent, possess integrity, and promote knowledge through a love for science. (Perawironegoro, 2019). The average age of santri attending junior high school and senior high school ranges from 12 to 18 years old, a pivotal phase marking the transition into adolescence. Adolescence is a period during which teenagers typically seek independence and strive for self-actualization. Hence, it is crucial to provide teenagers with an environment that can support the changes they undergo, guiding them towards positive development and preventing them from heading down a negative path. (Maghfiroh & Cahyadi, 2022) Pesantren typically enforce rules with a high level of discipline (Rahmawati, 2019). Boarding schools have, on an emotional level, cultivated specific aspects of societal values. These institutions prioritize moral values and uphold principles such as independence, simplicity, and more (Ridhahani, 2022).

Dormitories are shared housing for students constructed on various scales, spanning from small-scale accommodations (housing up to 50 residents) to larger facilities with more than 200 rooms. The term 'dormitory' or 'student residence' has been commonly used to describe student housing facilities, from school to university levels, since its inception. According to the Big Indonesian Dictionary 'KBBI,' a dormitory is defined as a building where groups of people live temporarily, comprising multiple rooms and overseen by a dormitory head. In Indonesian society, adherent to Islam, the dormitory system is often integrated into pesantren to impart Islamic values to adolescents. However, as time has passed, the community recognized several shortcomings in the boarding school

system, leading to significant changes in Islamic education. It involves modernizing the education system by merging pesantren education with public schools. What is now commonly referred to as a boarding school encompasses a variety of institutions, each with its own unique characteristics and requirements. Nonetheless, they all share a common goal: the transformation of individuals into better people with strong religious values (HIDAYANTI, 2018). The boarding school education model offers several advantages, including a curriculum that integrates theoretical learning with practical, hands-on experiences in the lives of the students. (Sulthon & Satria, 2023) Students are guaranteed safety from illegal activities, drug use, fights, and other negative influences since they are accommodated in the dormitory 24 hours a day (Basyaruddin & Khoiruddin, 2020a).

A boarding school is an institution where students both study and reside for the entire school year. They live within the school environment, along with their fellow students and accompanying teachers or 'pamong.' Typically, a boarding school comprises several residential buildings within a single area, collectively referred to as dormitories. These dormitories serve as a combination of three educational centres, namely family education, school education, community education.

The purpose of implementing santri coaching in the dormitory is to cultivate the characteristics of santri coaches through a process of interaction, education, and habituation, which is carried out through a series of activities inside and outside the dormitory (Saputra, 2023). These activities are additional to formal schooling. In pesantren life, two main focuses are central: education and teaching (Komariah, 2016).

In designing a dormitory, several factors need consideration, including land availability, capacity, and the provision of various facilities. Besides bedrooms, dormitory buildings should incorporate spaces to support user activities such as learning areas, social spaces, dining areas, as well as facilities for domestic activities like washing and cooking. Boarding school design also requires consideration of dormitory typology, which addresses facility needs and activity areas. Dormitories should include additional facilities like canteens, libraries, cooperatives, and sports amenities, not limited to sleeping rooms alone (Maksudin, 2012). Effective management plays a crucial role in supporting the learning process, as outlined in PP No. 19 of 2015, BAB VII, Pasal 42, Ayat (1). This section covers the provisions for managing facilities and infrastructure, highlighting their importance *"Each educational unit must provide facilities, including furniture, educational equipment, media, books, learning resources, consumables, and other necessary equipment, to support an organized and sustainable learning process"*.

The typology of spaces in boarding schools is not typically found in standard books on architectural and interior design, which do not specify the required space typology. This research investigates the optimal interior design of girls' dormitories in five Islamic Boarding Schools in West Java, Indonesia. Boarding schools have significantly different design standards from public schools due to the need to provide a home-like environment where activities occur round the clock. Referring to de Chiara's book 'Time-Saver Standards for Building Types' regarding space area requirements, the dormitory sizes used are as follows:

Table 1. Room Area Chart

Bunkbed	N	Area Needed (sq ft)
2	4	120
4	8	240
6	12	360
8	16	480
10	20	600
12	24	720
14	28	840
16	32	960

Source: Time Saver Standards for Building

Based on the table above, a room with two bunk beds accommodating four people requires a minimum area of 120 ft² or approximately 11 m². The same area requirement applies when using two non-bunk beds since it accounts for the bed space. The room size in a dormitory impacts the number of occupants and the type of beds used. Typically, dormitory rooms are furnished with bunk beds to optimize space and accommodate more occupants (Sani, 2020).

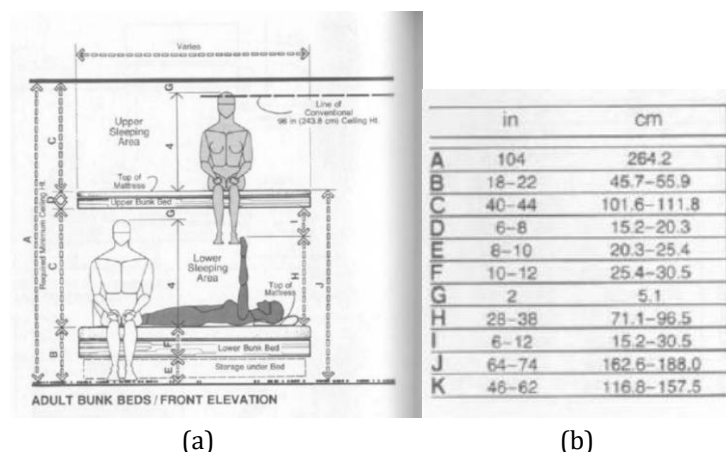


Figure 1. (a) Minimum area for double bed (b) ukuran standar

Source: Human Dimension and Interior Space:
A Source Book of Design Reference Standards

In Figure 1, it can be observed that the standard height of the bunk bed (A) is 264.2 cm, with a recommended distance of 101.6-111.8 cm between the lower and upper beds (C). Additionally, for the lower bed (B), the recommended seat size for users is 45.7-55.9 cm (Panero & Zelnik, 1979). In the research (Kameli et al., 2016) The dormitory was examined from the perspective of Eastern culture, which predominantly adheres to Islamic teachings emphasizing intimacy and comfort. It is argued that Islamic women need visual and physical protection, requiring a high level of privacy in the design of doors, windows, shutters, wall heights, and curtains in women's dormitories. Concerning territorial issues, in high-density spaces, personal territories often remain undefined (Hardianti et al., 2020). In dormitories, especially those with bunk beds, the bed serves as the occupant's personal territory (Khajehzadeh & Vale, 2014).

Facility standards in boarding school design are vital for maintaining the continuity of activities, as they significantly impact activity patterns, traditions, and the psychology of individuals in the boarding school environment (Muflikhah, n.d.). When optimizing the girls' dormitory, several factors need to be considered, including. Efficient space planning includes considerations for adequate bedroom sizes for each student, maximizing dormitory capacity, and providing common facilities such as bathrooms, kitchens, and study rooms. Ensure that the dormitory design prioritizes user safety by including security systems like CCTV and standard safety equipment. Offer comfortable and functional communal spaces for social activities, group meetings, and study. Provide supporting facilities such as laundry and storage areas that are easily accessible to all students. The dormitory design should consider good natural lighting, energy-efficient electrical installations, and environmentally friendly materials. Ensure that the dormitory is easily accessible to all students, including those with special needs, in accordance with applicable accessibility regulations. Create a comfortable environment with an appealing design, efficient circulation, proper air conditioning systems, and noise-reducing building materials. Provide a good study space with optimal lighting, ergonomic furniture, and supporting facilities such as books, computers, and internet access.

In a dormitory, the following shared facilities are necessary, dining room, kitchen, study room, private bathroom, dormitory supervisor's room, living room, laundry area.

2. RESEARCH METHODS

The selection of research objects employs a qualitative method, allowing readers to gain in-depth insights into interior design choices for women's dormitories. This research utilizes literature data related to women's dormitories in boarding schools and field observations. Qualitative research aims to provide a comprehensive understanding of the subject of study (Kusumastuti & Khoiron, 2019).

Qualitative research aims to capture an ideographic perspective on various phenomena and social realities. The research process starts with background preparation, an initial literature review, variable development, and proceeds with field observations (Jaya, 2020) By conducting on-site visits to the specific locations that serve as the subject of this case study, limited to Islamic Boarding Schools in West Java, this qualitative research method offers a comprehensive and easily comprehensible design for researchers and academics (Fadli, 2021)

Research related to secondary school dormitories in Indonesia found several related articles in the last 5 years including (Kameli et al., 2016; Khajehzadeh & Vale, 2014; Listyawati & Mandaka, 2022; Mufarik et al., 2019; Nurhidayat et al., 2021; Wulandari, 2016).

This research focuses on five boarding school dormitory buildings through direct observation, employing checklist observations and direct verification. Subsequently, the findings from the checklist and verification are presented in detailed descriptions.

In this research, we focus on five specific cases: Case 1: Islamic Boarding School in Bandung, Case 2: Islamic Boarding School in Sumedang, Case 3: Islamic Boarding School in Subang, Case 4: Islamic Boarding School in Tasikmalaya, and Case 5: Islamic Boarding School in Dagogiri Bandung.

In the discussion of the results, the researcher examines three key instruments in line with the previous literature review: interior standards, space availability, and santri activities.

3. RESULTS AND DISCUSSIONS

Following the qualitative research method, the analysis proceeds sequentially from case study 1 to case study 5, involving data collection through observations in five pesantren. The research findings are presented in the following tabulated form.

3.1. Standard Interior Bedrooms

Case Study 1: The average dormitory room size is 48 m², accommodating 20 students, which exceeds the room's capacity. There are no study areas or facilities in the dormitory rooms.

Case Study 2: The dormitory rooms meet capacity standards, with individual study tables and personal storage areas provided.

Case Study 3: There are no study facilities in the dormitory rooms, leading students to work on homework collectively or on their beds.

Case Study 4: The dormitory rooms meet interior standards, featuring bunk beds and individual study desks, along with personal storage cupboards for students.

Case Study 5: There are no study facilities in the dormitory rooms, prompting students to study together on the floor in an open area within the room.

Table 2. Availability of room facilities

Case Study	Availability of room facilities			
	Sleep facilities	Capacity according to standard	Learning facility	Storage area
1	Mattress only	X	X	V
2	Bunkbed	V	V	V
3	Bunkbed	V	X	V
4	Bunkbed	V	V	V
5	Bunkbed	V	X	V

Source: personal analysis

Based on the checklist in Table 2 regarding room facilities, the research found that four out of the five case studies use bunk beds as sleeping facilities, while one boarding school uses floor mattresses due to the high number of students exceeding the dormitory room capacity. In addition to sleeping facilities, optimizing dormitory design requires study facilities. Among the case studies, only two have dedicated study areas within the dormitory rooms, while others provide study areas outside the dormitory area.

Furthermore, students require storage areas in the dormitory rooms for personal belongings and needs. The research reveals that all case studies include personal storage areas for students within each room.

3.2. The Existance of Space

Case Study 1, The dormitory lacks a laundry room, so students wash their clothes in the bathroom. Study activities are conducted in the hall, and there is no designated living room for parents visiting students.

Case Study 2, This dormitory has complete facilities in line with standard dormitory facilities.

Case Study 3, There's no study area within the dormitory, so students' study in the prayer room with dormitory management. Also, there is no separate laundry area; students wash their clothes in the bathroom.

Case Study 4, There is no designated study area within the dormitory as each student already has a private study space. The dormitory lacks a laundry area, so students wash their clothes in the bathroom.

Case Study 5, Each room lacks a private bathroom, and students use shared bathroom facilities. There is no living room for parents visiting students.

Table 3. Existence of space

Case Study	Type of corridor	Number of floors	Existence of space						
			Dining room	Kitchen	Learning room	Private bathroom	Supervisor's room	Living room	Laundry area
1	Single loaded	1-2	v	v	x	x	v	x	x
2	Single loaded	3	v	v	v	v	v	v	v
3	Single loaded	2	v	v	x	x	v	v	x
4	Double loaded	2	v	v	x	x	v	v	x
5	Double Loaded	2	v	v	v	x	v	x	v

Source: personal analysis

The results regarding dormitory facilities in the five case studies indicate that all boarding schools provide dining rooms and kitchen facilities, demonstrating their attention to students' general needs in this regard. However, only two of the five case studies offer study rooms, revealing that not all boarding schools prioritize additional learning facilities for their students.

In terms of private bathrooms, only one of the five boarding schools provides this facility, indicating that privacy and student health aspects are not prioritized across all schools. Coach rooms are available in all case studies, serving as a vital support aspect for students, as coaches (musyrif/musyrifah) are often considered as substitute parents during their time in boarding schools.

Living rooms are used as facilities for parents who wish to visit their children, although two case studies do not have living room facilities due to restrictions on parental access to the dormitory environment. Laundry areas are present in only two case studies, emphasizing the priority some pesantren place on fostering students' independence.

3.3 Santry Activity

At Islamic Boarding Schools, santri activities are guided by Islamic moral principles. Students are taught to live independently, cultivate patience in addressing life's challenges, and solve problems they encounter. Additionally, they learn to socialize with peers from diverse regions in Indonesia, each with their own cultural, ethnic, and family backgrounds (Basyaruddin & Khoiruddin, 2020). At Islamic Boarding Schools, santri activities are guided by Islamic moral principles. Students are taught to live independently, cultivate patience in addressing life's challenges, and solve problems they encounter. Additionally, they learn to socialize with peers from diverse regions in Indonesia, each with their own cultural, ethnic, and family backgrounds.

The learning process for teenagers in boarding schools isn't always smooth, as they face obstacles that lead to laziness and boredom (Raihana & Ali, 2019). Hence, the presence of a dormitory coach as a parental figure is essential in guiding and directing students in their daily activities. In this context, students also require a private space to express any anxieties, highlighting the need for facilities like a counseling room where students can share their concerns.

Students in the dormitory engage in various activities, including not only studying but also entertainment activities that typically occur once a week. These activities may include sholawat, competitions, art performances, and more. As a result, facilities supporting these large-scale student activities within the dormitory area are necessary.

4. CONCLUSION

In designing women's dormitory spaces, optimization of spatial arrangement is crucial. Supporting facilities play a vital role in ensuring students' comfort and facilitating their activities. Optimization should adhere to minimum space standards to avoid overcrowding, which might make students uncomfortable. These facilities are essential for accommodating adolescent activities and supporting their positive development. The dormitory serves as an amalgamation of three educational centers: school education, family education, and community education. When designing a dormitory, factors like land availability, space capacity, and other necessary facilities beyond bedrooms

must be considered to support various user activities, including studying, socializing, dining, domestic chores, and personal activities.

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