Comparative Study of Transition Spaces in Public Housing (Rusun) in Supporting Social Interaction

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Abstract

Transitional spaces serve as connectors between private, public areas and facilitators of social interaction in vertical housing. However, the fulfillment of technical standards (spatial characteristics and dimensional standards) is often assumed to automatically enhance social interaction, whereas its effectiveness is also influenced by residents' activity patterns. This study aims to prove that technical standards alone are insufficient to create optimal social interaction. The research was conducted on transitional spaces in two housing with different resident profiles: Diponegoro University Public Housing (student housing) and Sawah Besar Public Housing (family housing). The research method employed a mixed-method approach through comparative analysis of transitional spaces based on technical standards, which was then compared with field observations of social interactions. The results show that although both public housing share similarities in meeting technical standards, the intensity of social interaction differs: low at Diponegoro University Public Housing and high at Sawah Besar Public Housing.

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INTRODUCTION

Public housing is a multi-story structure built within an environment that is divided into functionally structured sections, both horizontally and vertically, and consists of residential units, each of which can be owned and used separately. This housing is also equipped with common sections, common objects, and common land (Peraturan Pemerintah Nomor 13 Tahun 2021 tentang Penyelenggaraan Rumah Susun, 2021). According to Zakariya (2025), public housing, as a solution for vertical housing, are becoming increasingly relevant in addressing land limitations in densely populated urban areas. The existence of public housing not only offers spatial efficiency solutions but also presents new challenges related to the management of shared spaces and social interactions among residents. Therefore, public housing are not merely physical structures for living but also represent a complex social system that requires serious attention in planning and management (Salasabila et al., 2025).

Vertical housing such as public housing opens opportunities for interaction among individuals from diverse backgrounds. However, physical constraints in communal areas often lead to limitations in interaction and a sense of isolation, influenced by previous living experiences (A. A. Putri, 2018). This diversity among residents creates unique interaction patterns and necessitates the presence of shared spaces that support the formation of positive and harmonious social relationships. Thus, the social and psychological aspects of such housing must not be overlooked in its design and management.

The existence of space in architecture plays a crucial role in the study of the relationship between the physical environment and human behavior (Hantono, 2019). Space, as one of the main components of architecture, functions not only as a container for human activities but also as a medium that can influence, shape, and even direct the behavioral patterns and social interactions of its users (Fitria, 2018). This psychological and social dimension of space emphasizes that spatial design must accommodate human needs holistically—physically, mentally, and socially. When space is designed with these aspects in mind, it not only creates physical comfort but also strengthens a sense of security and a sense of belonging among its occupants. This sense of belonging, in turn, becomes an important foundation for the formation of an inclusive community and social solidarity in vertical housing environments.

Common spaces in public housing play a strategic role as vessels for social interaction, which can strengthen social networks and reduce feelings of loneliness or alienation often experienced by residents of vertical housing. Social interactions in communal housing, such as public housing, are often dynamic, particularly in spaces that facilitate informal encounters among residents, such as corridors (Ramadhani et al., 2017). In the public housing environment, common spaces not only function as gathering places but also as transitional areas connecting private and public zones. These transitional

spaces possess unique characteristics as they are semi-public and semi-private, enabling natural social interactions without the pressure of formality. The interactions that take place in these transitional spaces are often spontaneous and unstructured, making them crucial arenas for building and maintaining social relationships among residents.

Previous research indicates that transitional spaces often serve as the primary arena for spontaneous interactions among residents (Fitria et al., 2022). Therefore, effective transitional space design must accommodate diverse and flexible social activities. Designs that prioritize comfort, openness, and ease of access can enhance the potential of transitional spaces as mediums for social interaction. Additionally, well-designed transitional spaces can also support the adaptation process of new residents and strengthen their sense of attachment to the housing environment. This becomes increasingly important given that public housing typically experience relatively high resident mobility, making the sustainability of social relationships a challenge that must be addressed.

The application of technical standards for transitional spaces (size standards by Ernst & Neufert, SNI, and spatial characteristics by Angdjaja & Damayanti) is often assumed to be sufficient for promoting social interaction. The question remains: can the fulfillment of physical standards alone guarantee the formation of effective social interaction. This research aims to evaluate whether the transitional spaces in two public housing, namely Diponegoro University Public Housing and Sawah Besar Public Housing, comply with applicable physical standards. Additionally, this study also observes the level of social interaction in these transitional spaces as an indicator of their effectiveness for residents.

Transition Space

A transitional space is an intermediary area that connects public and private zones within an architectural arrangement (Andadari & Indrosaptono, 2021). This area not only functions as a circulation pathway linking various spatial functions but also holds significant potential as a space that facilitates social interaction among users. Social interactions in transitional spaces often occur through passive encounters, such as when users walk through, wait, or simply observe their surroundings. These simple activities can give rise to spontaneous and unplanned informal interactions, which ultimately form robust social networks (Simões Aelbrecht, 2016).

There are several elements in transitional spaces that directly influence users' spatial experiences, which in turn affect the quality of social interactions within them (Subiyantoro, 2006). These elements not only play a role in shaping perceptions of comfort and spatial aesthetics but also determine the extent to which the space can potentially encourage both spontaneous and planned interactions among users. The following are the elements in question:

Table 1. Transitional space elements according to Subiyantoro (2006)

Transitional Space Element	Definition	Purpose
Terrace	An open or semi-open area typically located at the front or side of a building.	Serves as a transitional zone connecting the exterior with the interior, while also providing a comfortable space to enjoy the outdoors without fully leaving the connected room's territory.
Lobby and Hall	A reception area at the front of a public building.	This space primarily functions to welcome visitors and connect public areas with other rooms within the building, making movement more organized and comfortable.
Corridor	A covered pathway typically connecting one room to another or even between buildings.	Not only facilitates circulation by providing protection from weather conditions such as rain and sun but also serves as a social space where residents can interact casually.
Void	A vertical empty space between building floors.	Acts as a source of natural lighting and ventilation, crucial for maintaining comfort and air quality inside the building while reducing reliance on artificial lighting and cooling.

Transitional Space Element	Definition	Purpose
Garden	An open green area located around or between buildings.	Plays a key role in providing visual breaks from hard structures, improving air circulation, and offering a comfortable space for relaxation and outdoor social interaction.
Free Space	A moderately sized space designed to enhance aesthetic quality beyond its primary function.	Provides flexibility for residents to use the space according to evolving needs and activities, allowing it to adapt to various situations and support both social and personal requirements.

Source: Subiyantoro, 2006

These six elements of transitional space not only serve as physical connections between spaces, but also play a crucial role in shaping patterns of social interaction, comfort, and the quality of the residential environment.

The physical characteristics of a space that foster social interaction consist of four main parameters: accessibility, placement, spatial experience, and boundaries (Angdjaja & Damayanti, 2022). These four parameters play a crucial role in shaping the quality of transitional space.

Achievement

Spaces with small dimensions and high movement intensity inherently create opportunities for social interaction among residents, particularly through the mechanism of waiting activities (Simoes Aelbrecht, 2023). In transitional spaces such as lobbies, corridors, or terraces, residents often pause briefly due to practical needs. These moments open possibilities for visual contact, exchanges of greetings, and light conversations, which can gradually strengthen a sense of community in vertical housing.

This demonstrates that spatial configuration has a direct impact on the frequency and quality of social interactions. Spaces that are too large or too spacious tend to reduce the likelihood of spontaneous interactions, as residents can more easily avoid each other or feel awkward initiating conversations in disproportionately scaled areas. According to (Syahwara & Handoyotomo, 2015), a well-centered spatial orientation can foster intimacy while maintaining a scale that avoids a cramped feeling and simultaneously creates an inviting atmosphere to stimulate social interaction. When correlated with Ernst & Neufert's dimensional standards for transitional spaces, the size that can attract social interaction should not exceed standard dimensions. The following are the referenced spatial standards (Neufert et al., 2002):

a. Terraces with an ideal width of 1.5–2 m to 2.5–3 m to support relaxed seating and interaction.
b. Lobbies (Entrance Halls) with an ideal area of approximately 11–14 m² to provide sufficient yet intimate space.
c. Corridors with a standard width of 1.3–1.6 m, ideally with doors on both sides to allow two or more people to pass comfortably.
d. Voids with a minimum ideal size of 3 x 3 meters to ensure optimal lighting and ventilation.
e. Gardens with an area starting from 250–400 m², large enough to accommodate various social activities in an open space.

Additionally, the size of free spaces (multipurpose rooms) referring to SNI 03-7013-2024 has a minimum area of 18–36 m² (Sunaryo et al., 2016)

Placement

The placement of transitional spaces—that is, positioning these spaces in strategic and frequently traversed locations, such as near residential units, shared facilities, or intersection points between corridors—is crucial. Effective placement of transitional spaces must consider their form and location to ensure they are easily visible and accessible from multiple directions. This maximizes the potential of transitional spaces as both functional connectors and natural social areas. Spaces that are difficult to access or hidden tend to be underutilized, reducing opportunities for social interaction. Proper

placement also considers the relationship between transitional spaces and supporting elements such as natural lighting, ventilation, and accessibility. Well-lit transitional spaces create a comfortable and safe atmosphere for residents, encouraging them to use these areas.

There are two types of spatial arrangements that yield different psychological and social impacts: sociofugal space and sociopetal space. Sociofugal space is designed to encourage individuals to maintain distance and separate from one another. In contrast, sociopetal space is designed to promote encounters, interactions, and strengthen relationships among individuals (Osmond, 1957, in Siew Bee & Poh Im, 2016).

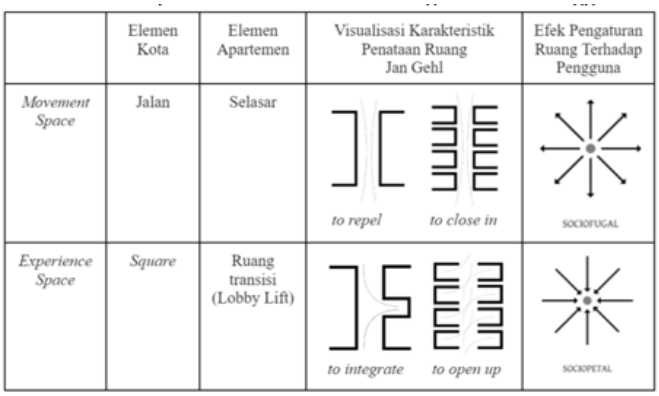


Figure 1. Comparison of Spatial Element Arrangement and User Effects
Source: Angdjaja & Damayanti, 2022

Spatial Experience

Spatial experience refers to the user's perception of comfort, ambiance, and atmospheric quality within transitional spaces. Distance within a space directly influences the impression it creates. According to Hall, 1982 (in Gehl, 2013), short distances in a space create a strong, intimate, and warm impression, which is highly ideal for personal and deep social interactions. Conversely, greater distances give a sense of spaciousness and diversity, which is more suitable for activities requiring more room for movement and casual interactions or mere coexistence.

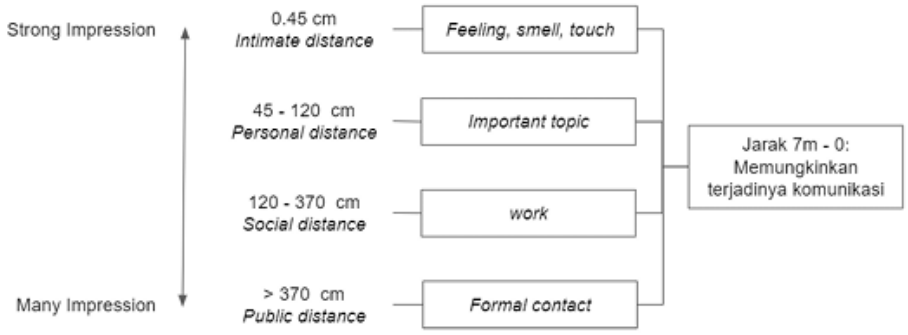


Figure 2. Distance and Impression Diagram
Source: Gehl, 2010

As shown in Figure 2, there are four main levels of communication distance, each conveying distinct impressions and opportunities for social interaction.

First, intimate distance (0–45 cm) allows for deeply intense emotional exchanges. At this range, elements of personal closeness—such as touch, scent, and affectionate expressions—play a dominant role. Spaces configured to enable such proximity tend to support interactions rich in emotional warmth. Second, personal distance (45–120 cm) is commonly used in communication between close friends or family members. Conversations within this range are personally significant and often occur in familiar settings, such as around a dining table or within household environments. Third, social distance (120–370 cm) is more suitable for functional or professional interactions, such as work-related discussions,

sharing everyday information, or communication in formal settings that still allow for two-way dialogue. Fourth, public distance (>370 cm) is typically used for one-way communication, where audience participation is more passive, as in lectures, sermons, or performances in open spaces.

Boundaries (Soft Edge)

Boundaries or soft edges refer to non-rigid, non-physical dividing elements—such as furniture, ornamental gardens, potted plants, light partitions, or other decorative features—that visually and functionally create smaller, more intimate zones within larger transitional spaces. The presence of soft edges is crucial as they reduce the rigidity and uniformity of large areas, transforming them into more welcoming and comfortable spaces. Soft edges allow residents to interact more freely and relaxed while providing subtle boundaries to prevent social areas from becoming overly open and infringing on individual privacy.

Soft edges also function as intermediary zones that regulate the intensity and type of social interactions. For example, placing benches along corridors, using potted plants in room corners, or incorporating semi-transparent partitions to separate circulation paths from waiting areas can enrich the quality of transitional spaces. These elements not only enhance the aesthetics of the space but also provide opportunities for spontaneous interaction among residents.

RESEARCH METHOD

This study employs a mixed-method approach with a comparative analysis of two types of public housing: Diponegoro University Public Housing (student housing) and Sawah Besar Public Housing (family housing). The analysis is based on spatial characteristics by Angdjaja & Damayanti (2022) and dimensional standards for transitional spaces by Ernst & Neufert (2000) and SNI. This approach aims to demonstrate that technical standards alone are insufficient to foster social interaction.

Data collection techniques include documentary studies to obtain secondary data, such as floor plans, technical drawings, and documents related to transitional spaces in both public housing. Additionally, direct field observations were conducted to examine the physical conditions of transitional spaces and observe social interactions and activity patterns among residents. Observations were carried out in the afternoon (4:00–6:00 PM) on Sundays, a time when most residents return to the public housing after outdoor activities. This aligns with research by Dewi & Yuliastuti (2015), which states that social interactions in public housing are most active during Sunday evenings. This timeframe was selected to capture the dynamics of transitional space usage optimally. Simultaneously, visual documentation was collected to support spatial and behavioral analysis.

The analytical technique uses comparative analysis to evaluate the implementation level of technical standards for transitional spaces in Diponegoro University Public Housing and Sawah Besar Public Housing. The results are then correlated with observational data on residents' social interactions to draw conclusions about the effectiveness of transitional spaces in supporting social interaction. Data validity was strengthened through triangulation by combining multiple data sources and collection methods to ensure accuracy and reliability.

Researchers categorized data based on transitional space types and the intensity of social interactions, then compared the results from the two study locations. The analysis is presented narratively, supplemented with tables, diagrams, and visualizations to facilitate discussion. This comparison aims to determine whether technical standards for transitional spaces can be universally applied to all types of public housing. The findings are expected to provide insights for designing better public housing that promote healthy and sustainable social interactions in vertical housing environments.

RESULTS AND DISCUSSION

Diponegoro University Public Housing

The C Building of Diponegoro University (Undip) Public Housing is located at Jalan Prof. Soedarto, S.H., Tembalang, Bulusan, Semarang City, Central Java. This public housing is designated for female students and consists of 4 floors with a total of 96 room units. Each room is designed to accommodate three students, bringing the total occupancy capacity to 288 residents. In-room facilities include an ensuite bathroom, beds, study desks, chairs, wardrobes, a mini kitchen, and electricity with a 900-watt

capacity. Additionally, shared facilities such as Wi-Fi, a canteen, gardens, a hall, a prayer room, volleyball and tennis courts, and 24-hour security are available. However, specific information regarding the construction year, operational start date, and total building area was not found in the available sources.

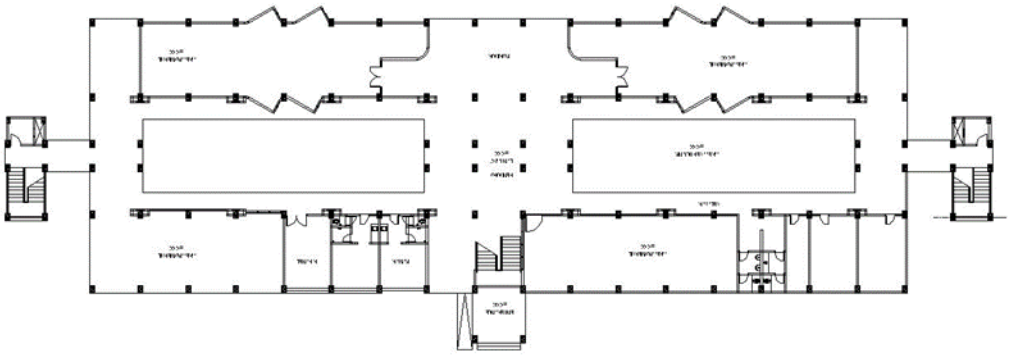


Figure 3. Floor Plan of the First Floor of Diponegoro University's Public Housing C
Source: PT. Pola Dwipa, 2025

The floor plan of the public housing reveals a symmetrically designed zoning with a central corridor measuring 1.9 meters in width, connecting all residential units. These units are positioned on both the left and right sides of the corridor, creating an efficient horizontal circulation flow accessible via two staircases at the ends of the building and an additional staircase in the center. Communal spaces are situated in the middle of the building, and the central corridor also functions as a transitional area between private and semi-public zones. The presence of a void in the center of the building allows for natural light and vertical airflow between floors. Additionally, two garden areas are located in the central part of the building, serving as shared open spaces.

Interviews with five residents of Diponegoro University's C Public Housing revealed that most occupants do not know their neighbors on the same floor. While facilities within the building, such as coworking spaces, central gardens, and a prayer room, support communal activities, they are generally used individually or in small groups with classmates rather than with fellow residents. This is also influenced by the students' activity patterns, which mostly take place outside the public housing, such as attending campus, studying with friends elsewhere, and dining out. Even when facing difficulties, residents tend to seek help from the public housing management first rather than interacting with or asking for assistance from their neighbors.

Sawah Besar Public Housing

Sawah Besar Flat Tower 4 is located at Jalan Dempel Barat, Sawah Besar Village, Gayamsari District, Semarang City, Central Java. This public housing is intended for low-income communities (MBR), particularly residents affected by the Eastern Flood Canal normalization project. The building consists of three floors with a total of 42 residential units, each measuring 36 m². Every unit is furnished with items such as wardrobes, beds, tables, and chairs. Additionally, the public housing provides shared facilities, including a multipurpose room, management office, minimarket, public toilets, and a futsal court. The construction of Tower 4 was planned following the completion of Tower 3 in 2022, designed as a low-rise simple rental public housing (Rusunawa).

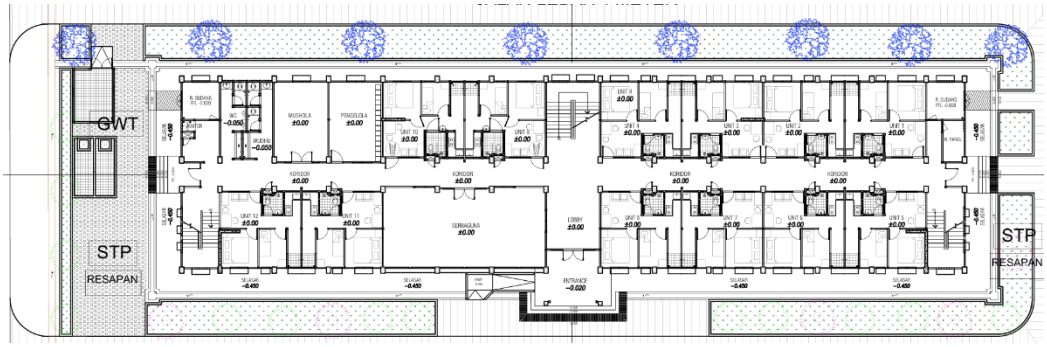


Figure 4. Floor Plan of the First Floor of the Sawah Besar Public Housing, Tower 4
Source: CV. JATI UTAMA, 2025

A 2-meter-wide elongated corridor connects the residential units horizontally. This corridor serves as the main circulation path for residents, providing access to individual rooms as well as to shared spaces such as the multipurpose room and management office. At several points, staircases function as vertical transitional spaces between floors. Additionally, open areas on the exterior, such as gardens and access to the STP (Sewage Treatment Plant) and GWT (Ground Water Tank) facilities, can also be categorized as part of the environmental transitional spaces, which connect the building with external elements and support the daily activities of the residents.

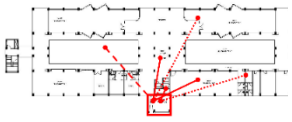
Social interaction in Sawah Besar Public Housing is quite positive, as evidenced by various routine collective activities such as community work events, neighborhood associations, and RT (neighborhood unit) meetings. Furthermore, the active involvement of PKK (Family Welfare Empowerment) mothers demonstrates resident cohesion, exemplified by the creation of a community-initiated garden. The gazebo area around the garden is frequently used as a gathering and conversation spot among residents, reflecting harmonious social relationships within the public housing environment.

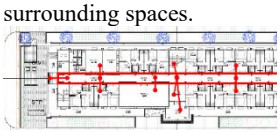
(a) **(b)**

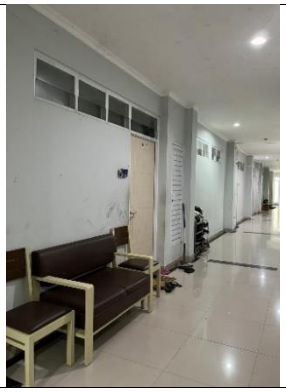
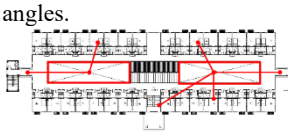
Figure 5. Garden made by PKK mothers (a) Common space (b)
Source: researcher documentation, 2025

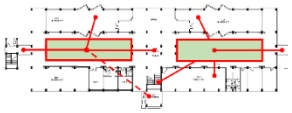
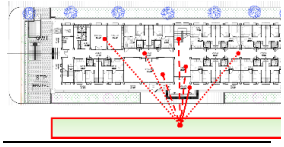
Table 2. Comparison of transitional spaces according to Angdjaja et al. (2022)

No.	Characteristics according to Angdjaja et al. (2022), Standardization according to Ernst & Neufert, SNI 03-7013-2024			
	Transitional Space Element by Subiyantoro (2006)	**Undip Public Housing**	**Sawah Besar Public Housing**	**Remarks**
1.	**Terrace**	• **Accessibility** Terrace size 3.86 m x 4 m, exceeding standard size, thus classified as large.	• **Accessibility** Terrace size 4.25 m x 3.45 m, exceeding standard size, thus classified as	• **Accessibility** Both public housing terraces do not meet the accessibility aspect. The ideal terrace size

No.	Characteristics according to Angdjaja et al. (2022), Standardization according to Ernst & Neufert, SNI 03-7013-2024			
	Transitional Space Element by Subiyantoro (2006)	**Undip Public Housing**	**Sawah Besar Public Housing**	**Remarks**
		• **Placement** Visible from multiple directions, suitable as a circulation path and connector between surrounding spaces.  • **Spatial Experience** No social interaction observed. • **Boundaries** Boundary elements include column pillars. 	large. Social interaction observed on the terrace. • **Placement** Visible from multiple directions, suitable as a circulation path and connector between surrounding spaces.  • **Spatial Experience** Social interaction observed at a distance of 0.45 m (intimate distance). • **Boundaries** Boundary elements include column pillars. 	should be 2.5–3 m to foster social interaction. • **Placement** The placement aspect is inappropriate for both terraces, falling under sociofugal space. • **Spatial Experience** The spatial experience aspect (comfort indicator) is only appropriate for Sawah Besar Public Housing terrace. • **Boundaries** The boundary aspect is appropriate for both terraces. **Social Interaction Observation Result**: Social interaction was only observed on the terrace of Sawah Besar Public Housing.
2.	**Lobby and Hall**	• **Accessibility** Lobby size 11.58 m x 5.90 m, exceeding standard size, thus classified as large. • **Placement** Visible from multiple directions, suitable as a circulation path and connector between surrounding spaces.  • **Spatial Experience** No social interaction observed. • **Boundaries** Boundary elements include chairs and a central waiting table for social interaction.	• **Accessibility** Lobby size is excellent at 4.25 m x 6.25 m. No social interaction observed in the lobby. • **Placement** Visible from multiple directions, suitable as a circulation path and connector between surrounding spaces.  • **Spatial Experience** No social interaction observed. • **Boundaries** Boundary elements include waiting chairs on the side for social interaction.	• **Accessibility** Both public housing lobbies/halls do not meet the accessibility aspect. The ideal lobby/hall size should be 11–14 m² to foster social interaction. • **Placement** The placement aspect is appropriate for both lobbies/halls, falling under sociopetal space. • **Spatial Experience** The spatial experience aspect (comfort indicator) is inappropriate for both public housing. • **Boundaries** The boundary aspect is appropriate for both lobbies/halls. **Social Interaction Observation Result**: No

No.	Characteristics according to Angdjaja et al. (2022), Standardization according to Ernst & Neufert, SNI 03-7013-2024			
	Transitional Space Element by Subiyantoro (2006)	**Undip Public Housing**	**Sawah Besar Public Housing**	**Remarks**
				social interaction observed in either lobby/hall.
3.	**Corridor**	• **Accessibility** Corridor width 1.2 m, exceeding standard size, thus classified as large. • **Placement** Visible from multiple directions, suitable as a circulation path and connector between surrounding spaces.  • **Spatial Experience** No social interaction observed. • **Boundaries** Boundary elements include railings. 	• **Accessibility** Corridor width 2 m, exceeding standard size, thus classified as large. • **Placement** Visible from multiple directions, suitable as a circulation path and connector between surrounding spaces.  • **Spatial Experience** Social interaction observed at a distance of 120–370 cm (social distance). • **Boundaries** Boundary elements include three chairs for social interaction. 	• **Accessibility** The accessibility aspect is only appropriate for the Undip Student public housing corridor. The ideal corridor width should be 1.3–1.6 m to foster social interaction. • **Placement** The placement aspect is appropriate for both corridors, falling under sociopetal space. • **Spatial Experience** The spatial experience aspect (comfort indicator) is only appropriate for Sawah Besar Public Housing corridor. • **Boundaries** The boundary aspect is appropriate for both corridors. **Social Interaction Observation Result**: Social interaction was only observed on the terrace of Sawah Besar Public Housing.

No.	Characteristics according to Angdjaja et al. (2022), Standardization according to Ernst & Neufert, SNI 03-7013-2024			
	Transitional Space Element by Subiyantoro (2006)	**Undip Public Housing**	**Sawah Besar Public Housing**	**Remarks**
				
4.	Void	• **Accessibility** Two voids, each measuring 22.77 m x 5.9 m, exceeding standard size, thus classified as large. Voids excel in facilitating air circulation and light. • **Placement** Visible from multiple directions. Voids support visual connectivity between floors and serve as observation points for user activities from various angles.  • **Spatial Experience** No social interaction observed around the voids. • **Boundaries** No additional elements found. 	No voids present	Cannot be compared
5.	**Garden**	• **Accessibility** Two gardens, each measuring 268.6 m², exceeding standard size, thus classified as large. • **Placement**	• **Accessibility** Garden size is excellent at approximately 200 m². • **Placement** Visible from multiple directions, suitable as a	• **Accessibility** The accessibility aspect is only appropriate for Sawah Besar Public Housing garden. The ideal garden size should be 250–400 m² to foster social

No.	Characteristics according to Angdjaja et al. (2022), Standardization according to Ernst & Neufert, SNI 03-7013-2024			
	Transitional Space Element by Subiyantoro (2006)	Undip Public Housing	Sawah Besar Public Housing	Remarks
		Visible from multiple directions, suitable as a natural gathering point for passing or relaxing residents.  • **Spatial Experience** No social interaction observed. • **Boundaries** Boundary elements include plant pots and column pillars. 	natural gathering point for passing or relaxing residents.  • **Spatial Experience** Social interaction observed at a distance of 0.45 m (intimate distance). • **Boundaries** Boundary elements include garden chairs and fences. 	interaction. • **Placement** The placement aspect is only appropriate for Undip Student Public Housing garden, falling under sociopetal space. • **Spatial Experience** The spatial experience aspect (comfort indicator) is only appropriate for Sawah Besar Public Housing garden. • **Boundaries** The boundary aspect is appropriate for both gardens. **Social Interaction Observation Result**: Social interaction was only observed on the terrace of Sawah Besar Public Housing.
6.	**Free Space**	• **Accessibility** Free space area 11.43 m², exceeding standard size, thus classified as large. This space is commonly used for student studying. • **Placement** Visible from multiple directions, allowing users to pause for activities.  • **Spatial Experience** Groups of students working on assignments observed at a distance of 45–120 cm (personal distance). • **Boundaries** Boundary elements include study tables for social interaction.	• **Accessibility** Free space area 80.3 m², exceeding standard size, thus classified as large. This space is commonly used for children's religious studies. • **Placement** Visible from multiple directions, allowing users to pause for activities.  • **Spatial Experience** No social interaction observed, but commonly used for meetings or children's religious gatherings. • **Boundaries** Boundary elements include chairs and tables	• **Accessibility** The accessibility aspect is inappropriate for both public housing free spaces. The ideal free space size should be 18–36 m² to foster social interaction. • **Placement** The placement aspect is appropriate for both free spaces, falling under sociopetal space. • **Spatial Experience** The spatial experience aspect (comfort indicator) is only appropriate for Undip Student Public Housing free space. • **Boundaries** The boundary aspect is appropriate for both free spaces. **Social Interaction Observation Result**: Social

No.	Characteristics according to Angdjaja et al. (2022), Standardization according to Ernst & Neufert, SNI 03-7013-2024			
	Transitional Space Element by Subiyantoro (2006)	**Undip Public Housing**	**Sawah Besar Public Housing**	**Remarks**
			for social interaction. 	interaction was only observed in the free space of Undip Student Public Housing.

Source: Author, 2025

Based on the table above, it is evident that the implementation of physical standards for transitional spaces in both public housing is relatively similar, with some differences in aspects of accessibility, placement, and boundaries. However, field observations show that social interactions were more frequently found in Sawah Besar Public Housing. This is due to the dominance of the spatial experience aspect, which, although theoretically part of the physical standards, in practice plays a more interpretative role. In other words, spatial experience serves as evidence of social interactions that cannot be fully measured through technical parameters.

Spatial experience is a crucial factor in encouraging the formation of social interactions. Thus, residents' activity patterns become the key differentiator. Students at Undip Public Housing are more often active outside (campus, canteens, or friends' boarding houses), while family residents at Sawah Besar Public Housing are more active within the public housing environment, making transitional spaces more optimally utilized as arenas for interaction.

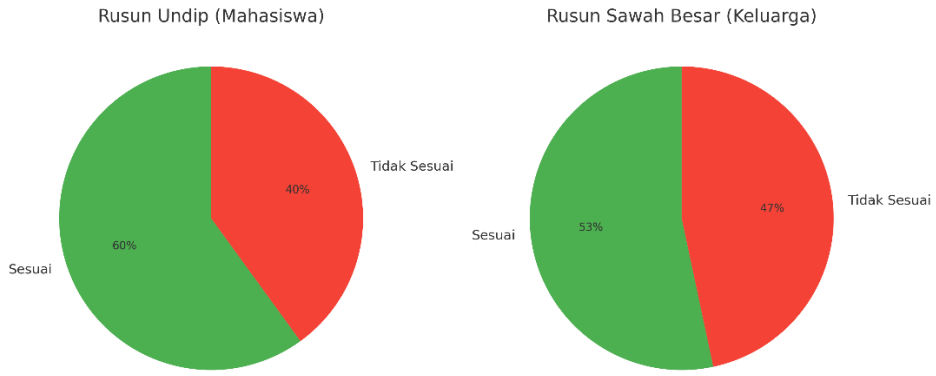


Figure 6. Diagram of the intensity of existing similarity to technical standards
Source: Author, 2025

The evaluation results of transitional spaces in the diagram show that 60% of the transitional spaces in Undip Student Public Housing comply with standards, while in Sawah Besar Public Housing the compliance rate reaches 53%. If technical standards for transitional spaces were sufficient to support social interaction, social interaction in the Student Public Housing should theoretically be higher. However, observational results actually reveal that social interaction in Sawah Besar Public Housing is

significantly higher compared to Undip Student Public Housing. Therefore, creating social interaction cannot rely solely on compliance with technical standards for transitional spaces but also requires consideration of other aspects such as resident behavior and characteristics, living culture, and the social activities formed within these spaces. Consistent with Sucipto (2021), the formation of communal spaces in public housing buildings cannot focus solely on technical standards but must also consider the characteristics and habits of residents to ensure these spaces truly effectively facilitate social interaction.

CONCLUSION

Analysis of the two case studies reveals that although the technical standards for transitional spaces—as outlined by Ernst & Neufert, SNI, and the theory of Angdjaja & Damayanti—have been implemented, the intensity of social interaction among residents still shows significant differences. Diponegoro University Public Housing, as student housing, demonstrates lower levels of social interaction compared to Sawah Besar Public Housing, which serves as family housing. This finding confirms that technical standards for transitional spaces are merely a basic prerequisite and are insufficient to guarantee successful social interaction, as their effectiveness is heavily influenced by the characteristics and activity patterns of the residents.

This study yields the following descriptive findings:

a. Both public housing have met the technical standards for transitional spaces based on Ernst & Neufert, SNI, and Angdjaja & Damayanti's parameters, including aspects of accessibility, placement, spatial experience, and boundaries.
b. Despite technical compliance, the intensity of social interaction differs significantly: low in student housing and high in family housing.
c. Residents' activity patterns are the primary differentiating factor in the success of transitional spaces as mediums for social interaction.
d. Transitional spaces designed adaptively and contextually, in alignment with the social needs of residents, have the potential to be more effective than merely adhering to uniform technical standards.

BIBLIOGRAPHY

Andadari, T. S., & Indrosaptono, D. (2021). SIKAP PEJALAN KAKI TERHADAP SETING RUANG TRANSISI PARAGON MAL SEMARANG. *NALARs*, *21*(1), 9. https://doi.org/10.24853/nalars.21.1.9-24

Angdjaja, C. A., & Damayanti, R. (2022). STUDI KARAKTERISTIK FISIK LOBBY LIFT SEBAGAI RUANG INTERAKSI SOSIAL DI APARTEMEN METROPOLIS SURABAYA. *Advances in Civil Engineering and Sustainable Architecture*, *4*(2), 161–170. https://doi.org/10.9744/acesa.v4i2.12947

Dewi, Z. L., & Yuliastuti, N. (2015). Pemanfaatan Ruang Bersama di Rusunawa Kaligawe, Semarang. *Ruang*, *1*(4), 171. https://doi.org/10.14710/ruang.1.4.171-180

Fitria, T. A. (2018). PENGARUH SETING RUANG TERHADAP PERILAKU PENGGUNA DENGAN PENDEKATAN BEHAVIORAL MAPPING. *Jurnal Arsitektur dan Perencanaan (JUARA)*, *1*(2), 183–206. https://doi.org/10.31101/juara.v1i2.775

Fitria, T. A., Rasidi, M. H., Said, I., & Firdaus, R. (2022). Local Elements Defining Transitional Spaces as a Territorial Strategy at an Urban Village in the City of Yogyakarta, Indonesia. *International Journal of Sustainable Development and Planning*, *17*(6), 1821–1829. https://doi.org/10.18280/ijsdp.170616

Gehl, J. (2013). *Cities for People*. Island Press.

Hantono, D. (2019). KAJIAN PERILAKU PADA RUANG TERBUKA PUBLIK. *NALARs*, *18*(1), 45. https://doi.org/10.24853/nalars.18.1.45-56

Neufert, P., Ernst, Walliman, N., & Baiche, B. (2002). *Architects' Data (3rd Edition)*. Blackwell Publishing Limited.

Peraturan Pemerintah Nomor 13 Tahun 2021 tentang Penyelenggaraan Rumah Susun, Pub. L. No. 6625, 13 tahun 2021 (2021). https://jdih.pu.go.id/detail-dokumen/PP-nomor-13-tahun-2021-Penyelenggaraan-Rumah-Susun

Putri, A. A. (2018). PERAN PHYSICAL SETTING DALAM INTERAKSI SOSIAL ANAK PADA

AREA KOMUNAL DI RUSUNAWA. *Ide Dan Dialog Desain Indonesia*, *3*(1), 23–37. https://doi.org/10.25124/idealog.v3i2.1452

Ramadhani, A. N., Faqih, M., & Hayati, A. (2017). BEHAVIOUR SETTING AND SPATIAL USAGE ANALYSIS ON SOMBO LOW COST FLAT'S CORRIDOR. *Journal of Architecture&ENVIRONMENT*, *16*(1), 61–74.

Salasabila, A., Astuti, W., & Suminar, L. (2025). *Analisis Tingkat Kelayakahunian Rumah Susun Sederhana Sewa (Studi Kasus: Rusunawa Begalon, Jurug, Mojosongo, dan Mangkubumen Kota Surakarta)*. *2*.

Siew Bee, A., & Poh Im, L. (2016). THE PROVISION OF VERTICAL SOCIAL POCKETS FOR BETTER SOCIAL INTERACTION IN HIGH-RISE LIVING. *PLANNING MALAYSIA*, *4*. https://doi.org/10.21837/pm.v14i4.156

Simões Aelbrecht, P. (2016). 'Fourth places': The contemporary public settings for informal social interaction among strangers. *Journal of Urban Design*, *21*(1), 124–152. https://doi.org/10.1080/13574809.2015.1106920

Simoes Aelbrecht, P. (2023). Human congestion in new designed public spaces: Researching its social interactional potential. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 1–31. https://doi.org/10.1080/17549175.2023.2284847

Subiyantoro, H. (2006). Ruang Transisi Sebagai Pembentuk Estetika Komposisi Ruang. *ResearchGate*, 72–80. https://www.researchgate.net/publication/323725922_Ruang_Transisi_Sebagai_Pembentuk_Estetika_Komposisi_Ruang

Sucipto, I. B. (2021). Spektrum Ruang Komunal sebagai Wadah Interaksi Sosial bagi Penghuni pada Rumah Susun Sederhana Sewa di Jakarta. *Jurnal Lingkungan Binaan Indonesia*, *10*(3), 132–137. https://doi.org/10.32315/jlbi.v10i03.53

Sunaryo, A. A., Akbar, H., Diadi, G. D., Triveni, & Septianto, E. (2016). Standar Kinerja Ruang Bersama Didalam Massa Bangunan Rusunawa Cingised. *Reka Karsa*, *4*(3), 1–11. https://doi.org/10.26760/rekakarsa.v4i3

Syahwara, P., & Handoyotomo. (2015). *CONDOMINIUM IN BACIRO YOGYAKARTA"Tata Ruang dan Sirkulasi yang Dapat Memicu Interaksi Sosial dalam Batas Property Size."* Universitas Islam Indonesia.

Zakariya, Y. (2025). *ANALISIS HUKUM TERHADAP DEGRADASI LINGKUNGAN AKIBAT PEMBANGUNAN RUMAH SUSUN DI KOTA TEGAL*. Universitas Pancasakti Tegal.