

# Creating An Inclusive Community Activity Center For The Elderly: Fostering Intergenerational Interaction

Aulia Gina Sasha<sup>1</sup>, Felia Srinaga<sup>2\*</sup> and Andreas Dwiputro Handoyo<sup>2</sup>

<sup>1</sup> Student of Department Architecture, University of Pelita Harapan, Karawaci, Tangerang

<sup>2</sup> Department Architecture, University of Pelita Harapan, Karawaci, Tangerang

E-mail: felia.srinaga@gmail.com

## Abstract

*As individuals transition into their senior years, they often experience declines in both physical and psychological well-being. Consequently, the elderly require specialized services distinct from those provided to younger adults. To address these challenges, the establishment of an elderly community center become essential, offering a range of tailored services derived from informed problem-solving approaches rooted in elderly-related phenomena. While discussions about the elderly tend to focus on their vulnerabilities, they possess a wealth of invaluable life experiences that surpass mere frailty. Their extensive knowledge, skills, life experiences, desires, regrets, and achievements serve as not only sources of nostalgia for the youth but also as a reservoir of knowledge ripe for analysis and transformation into meaningful life lessons. Facilitating intergenerational memories can effectively foster positive interactions between older and younger generations. The envisioned community center embraces an inclusive design approach, crafting an environment accessible to all users. With advancing age, diminished physical mobility and motor function lead to reduced strength and energy among the elderly. Designing spaces with their comfort and safety in mind within the built environment is crucial. This endeavor is informed by community observations, field studies, precedent analyses, and literature reviews, thereby gathering relevant theories to underpin the research. Six design strategies emerge from these investigations: 1) Site selection strategy, 2) Mass composition and building façade strategy, 3) Activity zoning within the building strategy, 4) Access and circulation strategy, 5) Interior space design strategy, and 6) Equipment and furniture strategy. By embracing an inclusive design approach, the planning and analysis encompass strategies for shared activities while ensuring comfort and safety, promoting the development and interaction of both the elderly and younger generations.*

**Keywords:** Elderly Community Center; Intergenerational; Inclusive Design

## 1. Introduction

The aging population is increasing at a significant rate in Indonesia, with projections indicating that the number of elderly individuals will reach 42 million by 2030 and expand further to 48.2 million by 2035, according to the Indonesian Ministry of Health [1]. The individuals under consideration, categorized as elderly, fall within the age range of 65 to 74 years [2]. This demographic shift emphasizes the importance of understanding and addressing the aging community's needs. The intergenerational activity under consideration is designed to promote collaboration, interaction, and exchange among two or more generations [3]. Recognizing the significance of intergenerational ties and age-friendly settings for diverse older adults is essential for enhancing their well-being and quality of life. Numerous studies have shown that intergenerational programming reduces age-related stereotypes and enhances community bond effectively. Strong intergenerational relationships, encompassing communication, interaction, and shared activities, consistently

emerge as pivotal factors in enhancing the elderly's quality of life [4].

As individuals transition into the elderly phase, they often experience a decline in physical and psychological conditions. Common health issues faced by the elderly include hearing loss, mobility limitations, and cognitive decline, such as memory loss and dementia. These age-related health issues and physical constraints can lead to a loss of independence, impacting their self-esteem mental well-being, and overall quality of life [5]. Additionally, the loss of social roles that once defined their identity can contribute to feelings of loneliness and isolation. Furthermore, the elderly may encounter age-related bias discrimination, and stereotypes in various aspects of life. Unfortunately, modern society often attaches a negative stigma to the elderly, perceiving them as frail, dependent, and burdensome, rather than recognizing their continued value as active contributors to the community. The aforementioned value encompasses the elderly's extensive knowledge, skills, and life experience which surpass those of the younger generation. Unfortunately, they

frequently lack ample opportunities to share their wisdom and insights.

The profound potential of intergenerational interaction emerges as a transformative force in mitigating the age-related health challenges and physical limitations faced by the elderly. By fostering meaningful connections between different generations, the barriers that can encroach upon the independence of older individuals, giving rise to self-esteem concerns, diminished mental well-being, and compromised overall life quality, can be effectively addressed. Intergenerational engagement combats the isolation and limitations linked to aging, providing a path to an enhanced aging journey. As diverse age groups come together to exchange experiences, insights, and companionship, they collectively contribute to a framework that empowers the elderly to lead lives of vitality, purpose, and dignity.

## 2. Methods, Findings and Discussions

This research is experimental and participatory research which combines qualitative and quantitative methods. The

qualitative method is used to capture a variety of activities that can be used by the elderly and the younger generation to initiate intergenerational interaction.

### 2.1. Types and Models of Intergenerational Programs

In the context of older adults engaging with children and youth, various roles have been identified [6]: (1) Mentors: These programs involve older adults serving as mentors for children and youth, emphasizing the unique relationship between mentor and mentee, (2) Tutors: Engage older adults in enhancing learning across academic disciplines, (3) Caregiver and nurturers: Fill gaps in existing social support, (4) Mature friends: Offer supportive figures to unrelated young individuals, and (5) Coaches: The coaching role encompasses elements of mentoring and tutoring, focusing on skill and talent development.

### 2.2. Activities for The Elderly and Younger Generation

**TABLE 1.** IDEAL ACTIVITIES FOR THE ELDERLY AND YOUNGER GENERATION

Activity	Elderly's Activity in Community Center	Young Generation's Activity in Community Center	Elderly and Young Generation's Activity in Community Center	Types and Models of Intergenerational Programs
<b>Playing/recreation</b>	Arts, crafts, hobby*	Playing sports**	Gardening	Mature Friend
	Gardening	Shopping**	Walking/jogging and exercising	Mentors
	Walking/jogging and exercising*	Recreational trips**	Recreational trips	Mature Friend
	Recreational trips		Watching TV/movies	Mature Friend
	Yoga		Going out to eat	Mature Friend
	Playing sports*		Arts, crafts, hobby	Coaches
	Watching TV/movies*			
	Shopping*			
<b>Socializing</b>	Going out to eat*			
	Cooking and baking	Being alone with close friends**	Cooking and baking	Coaches
	Volunteering*	Being with friends**	Music dan dancing	Coaches
	Music and dancing	Hanging out**	Life story exercises	Mature Friend
	Pet therapy	Meeting with new people**	Book club	Mature Friend
	Pampering	Volunteering**	Puzzles/games not on computer	Mature Friend
	Book club	Music and dancing**	Socializing in person	Mature Friend
	Life story exercises			
<b>Learning</b>	Puzzles/games not on computer*			
	Socializing in person*			
	Higher learning	Learning**	Learning	Tutors
	Reading and writing*	Obtaining new information**	Reading and writing	Tutors
	Teaching/tutoring	Companions or helpers**	Teaching	Tutors
	Coaching	Teaching	Coaching	Coaches
	Mentoring			

### 2.3. Design Strategies and Concept

The passage outlines six crucial design strategies planned for integration into the Center for Potential Development for the Elderly and Young Generation. These strategies encompass various aspects, starting with a site-based approach to blend with the environment harmoniously. The site-based design immerses users in nature, offering sensory experiences while drawing inspiration from the surrounding greenery. The choice of location is deliberate, as it is near a residential area and is complemented by nearby facilities, including Siloam Hospital, as well as several schools and universities (Figure 1).

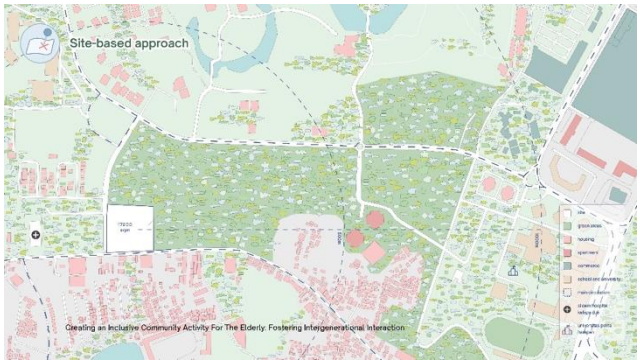


Figure 1. Site-based Approach Design Strategy

The second strategy focuses on the building's appearance and mass composition, aiming for an engaging presence for both generations. This strategy is centered on two critical aspects of the building: its visual aesthetics and the arrangement of its mass composition. The building's unique shape and design aim to provide a peaceful and welcoming space, especially for the elderly. It includes various room shapes for easy identification, abundant natural light through glass openings, and a two-story layout (Figure 2).



Figure 2. Building Façade and Mass Composition Design Strategy

The third strategy involves zoning spaces purposefully within the building layout to maximize internal utilization. This strategy focuses on deliberately organizing and allocating of spaces within the building. A spatial arrangement typology was established, ensuring that all functional areas are

intuitively connected, eliminating the need for directional signs by grouping similar functions nearby (Figure 3).



Figure 3. Zoning and Spatial Planning Design Strategy

Enhancing accessibility and circulation forms the fourth strategy, promoting inclusivity. The access and circulation design prioritizes pedestrian safety. In addition to pedestrian safety, the design also emphasizes making the area accessible for individuals who use wheelchairs. This involves the inclusion of ramps, wider pathways, non-slippery walking surfaces, and the provision of handrails to ensure that those with mobility challenges can navigate the space comfortably (Figure 4).

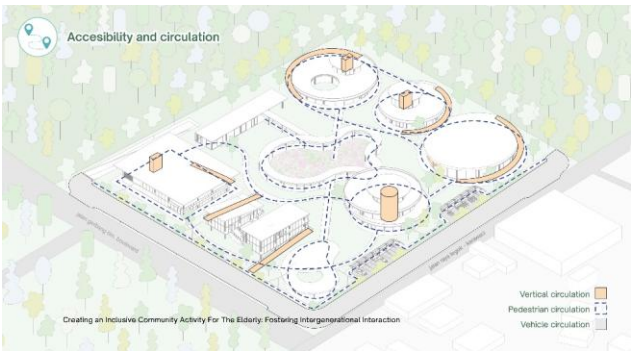


Figure 4. Accessibility and Circulation Design Strategy

The fifth strategy centers on interior design, prioritizing comfort, functionality, and interaction. This approach highlights the design considerations for creating distinctive and functional interior spaces. It discusses the use of color, room shapes, ceiling heights, and flexible configurations to cater to the needs and preferences of seniors and the younger generation while ensuring safety (Table 2).

TABLE 3. IDEAL ACTIVITIES FOR THE ELDERLY AND YOUNGER GENERATION

Criteria	Details	Conclusion
Color	Monochrome Neutral blue and brown	The colour of the interior space is dominated by monochrome colours with neutral accent colours, namely blue and brown.
Material	Concrete, glass, steel	Interior space materials use concrete, glass, and steel.

Criteria	Details	Conclusion
Door Openings, and Windows	Glass openings with clear lining, Sliding door, Hydraulic hinge door.	The openings are glass panels with lining that quite easy for elderly to distinguish. Sliding door were chosen because they are easy to use for the elderly and can create a variety of room configuration. Hydraulic hinge doors are used to regulate the speed of door closing, occasionally in toilets.
Room Scale	<p>5m 4m 3m 2.7m gymnasium creative social intimate</p>	Private rooms with passive activities will use scale at 2.7 meters and art/ music studio will use 4 meters.

Lastly, the selection of equipment and furniture aligned with the center's goals constitutes the sixth strategy. This last approach highlights the design considerations for creating distinctive and functional equipment and furniture. It discusses the importance of lighting, the furniture dimension, signage, and provision of handrail Within the building (Table 3).

TABLE 2. EQUIPMENT AND FURNITURE SELECTION DESIGN STRATEGY

Criteria	Details	Conclusion
Lighting	<p>Indoor Outdoor</p>	Direct glare is avoided by using indirect lighting. The light is placed at a height not at eye level or below and should not be too bright.
Furniture	<p>150-200mm 430-470mm 360-500mm</p>	The furniture is made comfortable and home-like for the elderly and the seating has armrest and backrest. Furniture has visual contrast for easy visual identification. Furniture placement must consider wheelchair clearance (min. 1.5 meters)
Signage		Signage is placed at an angle and the viewing distance is parallel to eye level and distributed at several points on the building.
Handrail		Smooth handrails and railings do not have protrusions that could become obstacles. Handrails have high visual contrast for easy visual identification. The end of the handrails is not open so that no items can get in contact with and endanger the elderly.

Overall, these strategies collectively aim to create an inclusive, collaborative, and growth-oriented environment.

The project integrates three design concepts: the site-based design connects users with nature, enhancing sensory experiences and inspiring all generations. The access and circulation design ensures pedestrian safety with separate pathways and inclusive features, including a prominent wheelchair-accessible ramp. The mass composition and building facades prioritize fluidity, encouraging exploration and creativity while maintaining an inviting atmosphere. Expansive glass walls create an open feel, while varying ceiling heights foster intimate and innovative spaces. The strategic layout encourages users to explore, with an urban garden as a central hub connecting indoor and outdoor areas, serving as a socialization hub for users and visitors alike.

## 2.4 Discussion

Intergenerational interaction holds transformative potential by addressing age-related health challenges and physical limitations among the elderly. Creating meaningful connections between generations dismantles barriers that threaten their independence, offering a solution to diminished self-esteem, mental well-being, and overall quality of life. Socialization, particularly through positive interactions and regular exercise, plays a vital role in enhancing seniors' mental health [9]. Engaging in social activities helps them maintain a sense of community contribution, fostering increased self-assurance. This approach contributes to successful aging by recognizing the enduring value of skills and traits that remain relevant over time.

Beyond this, the younger generation benefits immeasurably from the wealth of knowledge, skills, life experiences, and the wisdom imparted by their elder counterparts. This symbiotic exchange enriches both sides, knitting a fabric of shared insights and collaborative learning through selected activities mentioned previously. In essence, intergenerational interaction shapes younger adults into well-rounded individuals by expanding their horizons, fostering empathy, exchanging knowledge, and providing a rich tapestry of experiences to draw from. It is a mutually beneficial exchange that lays the groundwork for a harmonious and connected society.



TABLE 4. INTERGENERATIONAL INTERACTION ACTIVITIES EFFECT FOR THE ELDERLY AND YOUNGER GENERATION

Activity	Elderly and Young Generation's Activity in Community Center	Intergerational Interaction Effect for Elderly	Intergerational Interaction Effect for Young Generation
Playing/ recreation	Gardening	Absence of disease and active engagement with life	Mentorship opportunities, acquisition of Wisdom, reduced age bias, increased interpersonal skill, and broadened perspective.
	Walking/jogging and exercising	Absence of disease and increase motor function	
	Recreational trips	Active engagement with life	
	Watching TV/movies		
	Going out to eat		
	Arts, crafts, hobby		
Socializing	Cooking and baking		Acquisition of Wisdom, reduced age bias, increased interpersonal skill, broadened perspective, community building, and enhanced emotional intelligence.
	Music dan dancing	Absence of disease and active engagement with life	
	Life story exercises	Active engagement with life and knowledge exchange	
	Book club	Increase cognitive functioning	
	Puzzles/games not on computer	Increase cognitive functioning. and active engagement with life	
	Socializing in person	Active engagement with life and knowledge exchange	
	Learning	Learning	
Reading and writing			
Teaching			
Coaching			

The selected activities and the implementation of 6 design approaches can help create meaningful connections between generations and dismantle barriers that threaten their independence, offering a solution to diminished self-esteem, mental well-being, and overall quality of life for both users. These activities contribute to the development of both the senior and young generations. For instance, young adults can promote the acquisition of wisdom and a broadened perspective and as for senior, they provide active engagement with life and help improve cognitive function. Socialization, mainly through positive interactions and regular exercise is vital in enhancing seniors' mental health. Engaging in social activities helps them maintain a sense of community contribution, fostering increased self-assurance (Figure 5).



Figure 5. Outdoor Learning and Socialization Activities

The implementation of arts and crafts into intergenerational activities is a versatile and effective way to promote social, emotional, cognitive, and physical well-being while fostering connections and understanding between generations. Creative engagement in artistic endeavors not

only provides a platform for shared experiences, but also serves as a therapeutic outlet for emotional expression. Furthermore, cognitive stimulation and physical involvement in art activities contribute to a holistic approach to well-being, making it a valuable tool for promoting health and connections between generations (Figure 6).



Figure 6. Outdoor Learning and Socialization Activities

Participating in gym activities fosters a sense of community and mutual support among individuals of various age groups. The shared pursuit of health creates a common ground, encouraging generations to connect share experiences, and motivate each other on their fitness journey. This interaction contributes to physical well-being and cultivates companionship (Figure 7a). Subsequently, the auditorium serves as a central hub within the facility, providing a conducive space for seniors possessing a wealth

of experience to engage actively with the community. This environment allows them to share their valuable insights and knowledge through the facilitation of seminars and workshops. The auditorium, complemented by its surroundings, fosters a collaborative atmosphere where seniors can contribute to the educational and social aspects of the community, creating a platform for exchanging wisdom and expertise (Figure 7b).



**Figure 7.** (a) Gym Activity; (b) Seminar and Workshop Setting

Informal classrooms may encourage seniors and the younger generation to engage in discussions, explore their interests, and take ownership of their learning with less structure and rigidity compared to a traditional or formal classroom setting. Intergenerational learning not only benefits the participants individually, but also enriches society by fostering understanding, unity, and the preservation and transfer of knowledge across generations (Figure 8).



**Figure 10.** (a) Informal Classroom Setting; (b) Library Setting

In essence, intergenerational interaction also shapes younger adults into well-rounded individuals by expanding their horizons, fostering empathy, exchanging knowledge, and providing a rich tapestry of experiences to draw from. It is a mutually beneficial exchange between elderly and younger adults that lays the groundwork for a harmonious and connected society, creating a more inclusive and resilient community.

### 3. Conclusion

The transition into old age often results in declining physical and mental health, leading to a demand for specialized services for seniors. To address these challenges, the establishment of an elderly community center holds immense importance. This center serves as a platform for intergenerational exchange, enabling older individuals to share their life experiences with younger generations and fostering positive connections. A pivotal aspect of this initiative is its all-encompassing design, ensuring inclusivity and meeting user needs. Intergenerational interaction emerges as a dynamic force capable of addressing age-related health

issues, reducing physical limitations, and boosting the well-being of the elderly. Concurrently, it imparts valuable life experiences, wisdom, and insights to the younger generation, contributing to their personal development. As we work toward creating inclusive, secure, and resilient living spaces, intergenerational interaction becomes a cornerstone, promoting unity, empowerment, and shared growth. It is more than just a means of bridging generational gaps; it serves as a guiding light towards a future where individuals of all ages thrive within a robust and harmonious society.

### Acknowledgement

We are very grateful to the center of research and community development (CRCD) University of Pelita Harapan (UPH), Tangerang-Indonesia, who has supported and funded this research with research contract number: 126/LPPM-UPH/I/2023.

### 4. References

- [1] Adi , A. (2022, May 30). Databoks. Retrieved from Katadata Media Network: [https://databoks.katadata.co.id/datapublish/2022/05/30/ada-30-juta-penduduk-lansia-di-indonesia-pada-2021#:~:text=Kementerian%20Kesehatan%20mempr oyeksikan%20jumlah%20penduduk,13%2C82%25\)%20pada%202035.](https://databoks.katadata.co.id/datapublish/2022/05/30/ada-30-juta-penduduk-lansia-di-indonesia-pada-2021#:~:text=Kementerian%20Kesehatan%20mempr oyeksikan%20jumlah%20penduduk,13%2C82%25)%20pada%202035.)
- [2] Alterovitz SS, Mendelsohn GA. Relationship goals of middle-aged, young-old, and old-old Internet daters: an analysis of online personal ads. *J Aging Stud.* 2013;27:159–65.
- [3] Harper, S., & Hamblin, K. (2013). *International Handbook on Aging and Public Policy.* Edward Elgar.
- [4] Harfina, & Vibriyanti. (2017). *Determinan Kualitas Hidup Lansia di Kota Medan.*
- [5] Jeste, D., Depp, C., & Vahia, I. (2010). Successful Cognitive and Emotional Aging. *World Psychiatry*, 78-84.
- [6] Newman, S. (1997). *Intergenerational Programs.* Taylor & Francis.
- [7] Szanton, S. J., Walker, R. K., Roberts, L., Thorpe, J., R, J., Wolff, J., . . . Seplaki, C. (2015). Older adults' favorite activities are resoundingly active: Findings from the NHATS study. Elsevier.
- [8] Duzenli, T., Bayramoglu, E., & Özbilen, A. (2010). Needs and preferences of adolescents in open urban spaces.
- [9] Crooks, V., Lubben, J., Petitti, D., Little, D., & Chiu, V. (2011). Social Network, Cognitive Function, and Dementia Incidence Among Elderly Women. A Publication of The American Public Health Associations.