# The Role of Elderly- Special Garden as a Social Interaction Space for the Elderly Community in Semarang City

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Abstract:

Healthy living in old age is a dream for the elderly. This elderly health supports the increasing life expectancy of Indonesian people. The success of the current development can be seen by the increase in life expectancy that has an impact on the increasing number of elderly people. Indonesia belongs to an old structured country because the elderly population reaches more than 7% (who provisions) of the total population. Central java ranks third of the five provinces in Indonesia with the largest number of elderly, but currently does not have a park specifically for the elderly and does not have an elderly regional regulation. This fact is quite ironic because the elderly people actually have the same rights as other citizens in the use of public open space. Thus the role of public open space for the elderly will be very supportive in the process of improving health quality. The elderly need interaction with the public, in this case the elderly need for social interaction space in the form of public space that is an elderly park. This study aims to create integration between geriatric science and architecture in the planning of elderly parks and develop criteria for planning elderly gardens. The method used is qualitative where to search data by means of purposive sampling and sampling area. The findings of this study are in the form of an elderly garden planning criteria that can be used as a basis for the preparation of the elderly regulation. By providing a special room for the elderly, it is hoped that it will improve the quality of life of the elderly and make Semarang city an elderly friendly city.

## 1 INTRODUCTION

According to the Republic of Indonesia Act number 13 of 1998 the meaning of the elderly or the elderly is a community that has reached the age of 60 (sixty) and above.

Based on population projection data as shown in Figure 1, it is estimated that in 2017 there will be 23.66 million elderly people in Indonesia (9.03%). It is predicted that the elderly population in 2020 (27.08 million), in 2025 (33.69 million), in 2030 (40.95 million) and in 2035 (48.19 million). With almost 24 million elderly people in 2017, Indonesia is included in the old structured country because the elderly population reaches more than 7% (WHO provisions) of the total population.

Based on data from the Central Statistics Agency, SUSENAS 2015 is available. 19 provinces (55.88%)

of Indonesia have an old population structure. From the Figure 2, it can be seen that the three provinces with the largest percentage of elderly are DI Yogyakarta (13.81%), Central Java (12.59) and East Java (12.25%).

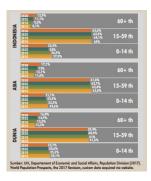


Figure 1: Population development in the world.

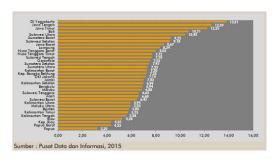


Figure 2: Percentage of elderly population in Indonesia 2017.

Central Java ranks second out of the five provinces in Indonesia with the largest number of elderly, but until now they do not have an elderly garden. While East Java and West Java, which ranks 3rd and 8th, have an elderly garden. This condition should receive attention from the provincial government of Central Java where the increasing number of elderly population will also affect the implementation of development.

Healthy living in old age supports the increasing life expectancy of Indonesian people. The purpose of human life is to grow old but stay healthy (Darmojo, 2004). With the development of technology in the health sector, life expectancy in the coming years increased from 66.7 years to 70.5 years (Kodim, 2009).

Some of the factors that have caused humans to age with all their problems have been studied in geriatrics (medicine) or advanced health sciences which are also related to psychological and social aspects. On the other hand, the elderly (elderly) need interaction with the public, in this case the elderly need for social interaction space in the form of public open space in the form of an elderly park.

Elderly residents are part of the population of a city which basically has the same rights in the utilization of public open space (public space). Mulyandari (2011) said that public space is basically a container that can accommodate certain activities / activities of the community, both individually and in groups. Kevin Lynch (1981) in Good City Form describes that a good place is a place that is comfortable and convenient for its citizens, adults, young children, people with physical limitations, etc., in this case, including the elderly or the elderly. The city must be able to accommodate the needs of its population.

The city of Semarang itself has a park that can be accessed by the general public including: Minister's Park Supeno, Serasi Park (Ungaran), Tabanas Park, Gajahmungkur Park, Simpanglima Park, Parang

Kusumo Park (Tlogosari), Srigunting Park, Semarang Park Indah, Diponegoro park, park Jl. Kawi, Pandanaran park and others. But all these parks only provide little space and even no access for the elderly and disabled. Public open space is mostly just as a place of recreation and complementing the contents of the city and its existence does not answer the needs of the community for public open space that serves as a means to improve the quality of life of citizens.

In terms of the availability of public open space in the city of Semarang compared to the area and population, it can be said to be very lacking. Especially in terms of requirements, quality and access to the elderly (disabled) and disabled people. Some of the above need to get serious attention from the Semarang City government amid the rampant construction of malls and apartments.

The main problem is the extent to which the Semarang City government can accommodate the needs of the elderly for public open spaces in accordance with the requirements. The purpose of this study is to create an integration between geriatric science and architecture in planning an elderly park and preparing criteria for planning an elderly garden. The urgency of this research is that the planning or design of public open space is not only supported by architectural science and urban planning, but more precisely with the support of other fields of science which are still related, in this case geriatric science.

## 2 RESEARCH METHODOLOGY

#### 2.1. Method

The method used is qualitative where qualitative methods are used to identify and explain the data obtained based on existing conditions and the results of the data collection are reviewed to be analyzed further through the principles of geriatric disciplines and public open spaces so that findings can be obtained. Whereas in reviewing based on the standards or regulations that apply, the normative method is used.

#### 2.2 Data Collection Method

The method that will be used in data collection refers to the methodology used which is qualitative, where from the existing data then categorized into certain themes to facilitate the analysis. Data collection is done through direct observation and interviews. Observations are carried out directly supported by secondary data sources (literature, photography and sketches) and observations from selected respondents (indirect observation). While the interview activity is the primary data source which is obtained from parties who directly provide data in this case the elderly community respondents through a question-and-answer process. To explore the data from the respondents selected the type of free guided interview, where the interviewer makes the main issues that will be studied (guided) as a guide in the interview process while in the interview process is free speech.

#### 2.3 Materials and Tools

The research material was obtained from the collection of materials from supporting data sources, namely: material from literature / literature sources, material obtained from planning objects and material obtained from resource persons / respondents while the tools referred to here are equipment that used in conducting surveys that serve to assist in the data collection process.

## 2.4 Samples and Respondents

The sampling method is not chosen randomly but uses certain considerations (purposive sampling) with the intention that the sample taken can be representative that can provide clear information / images so that the number of research samples is not determined in advance.

Then as a population is the elderly and parks in the city of Semarang. The connection with the problem in the planning area is the snowball sampling technique that is extracting data through in-depth interviews from one respondent to another and so on until the researcher does not find new information. Another factor in determining the sample is the informant in this case the respondents who have special criteria, namely the elderly and visitors to parks in Semarang City. The selection of respondents can develop according to the needs in obtaining data.

## 2.5 Data Analysis

Data analysis will be done is making abstraction based on data that has been collected and then categorized. The data analysis process is carried out since data collection or since the first time in the field. Furthermore, after all data has been collected, intensive and extensive data analysis is carried out after returning from the field.

## 3 RESULTS AND DISCUSSION

The study was conducted on 3 (three) parks in the city of Semarang, including parks: Pandanaran, Gajah Mungkur and Sampangan. Each of these parks has its own peculiarities based on the location, history, area, facilities, service area and the needs of the local community for public open spaces. So far these parks have been very supportive of the public's need for public open space even though in terms of the total needs of the people of Semarang City the public open space that is comfortable is still very far away which is about  $\pm$  7% of the 20% recommended conditions (Permen PU, 2008). Based on observations from the 3 parks, only Pandanaran Park was designed using a ramp that could be accessed by the elderly and disabled, but the ramp was still far from the required requirements. Table 1 shows the study conducted on the object of research based on the park's service to the elderly and disabled.

From the results of the analysis above obtained a basic criteria for planning a special elderly garden in the city of Semarang that combines the planning requirements of the elderly garden in terms of the field of architectural science and the requirements of a place that can be accessed by the elderly in the field of geriatrics. Criteria for elderly parks based on the above studies are as follows:

• The area of the park and the number of elderly people.

The planned park area must be based on the number of elderly people in an area and the possibility of increasing the number of elderly people. This will support in terms of comfort where park users are not only the elderly, but people who do not have special needs will also take advantage of the park. Minimum garden area is 0.30 m2 / urban village population.

## • Ease of access to the park.

Access to the elderly park must be taken into account considering that the elderly and disabled have the limitations of traveling to the park. Limitations in terms of physical conditions and limited facilities for going to the park. Access to the park must be as easy as possible and as close as possible to residential areas.

#### Park security.

Parks that are planned must be safe, meaning safe against crime. Because elderly people have limitations, the location of the park should not be in crime-prone areas.

Table 1. Result of the research on park service for elderly and disabled.

Study	Location	Location 2	Location 3
	_ 1	Taman	Taman
	Taman	Pandanaran	Sampangan
	Gajah		
	Mungkur		
Area	$9.07 \text{ km}^2$	$0.70 \text{ km}^2$	$0.98 \text{ km}^2$
Population	63,707	7,259	62,375
(person)			
Minimal	19,122	2,178	8,713
Required			
Garden Area			
$(m^2)$			
Garden Area	7,039	600	3,587
$(m^2)$	(36.8%;	(27.5%;	(19.2%;
	Not	Not	Not
	Feasible)	Feasible)	Feasible)
Accesibility	easy	easy	easy
RAM	Not	Available	Available
	Available	with too	with
		steep RAM	suitable
		(1:5)	steepness.
			In not good
			condition
Railing	Not	Not	Not
	Available	Available	Available
Disable path	Not	Available	Available
	Available		
Noise	Medium	Very Noisy	Very Noisy
Pedestrian	Not	Available	Available
Material	Available		
Vegetation	Enough	Less	Less
Pollution	No	Very high	Very high
	Pollution		
Lighting	not	not	not
	sufficient	sufficient	sufficient
	at night	at night	at night
Garden	Available;	Available;	Available;
Facility	poorly	poorly	poorly
	maintained	maintained	maintained
Parking	Not	Parking for	Inadequate
	available	Bicycle	parking for
			motorcycle
Bus Stop	Available	Not	Not
Î		Available	Avilable
Park	Comfortable	Not	Not
Convenience		Comfortable,	Comfortable,
		quite hot	quite hot

## Special parking space.

The park must have a special parking area for the elderly and disabled who are safe and comfortable and adjacent to the park. The park must be accessible from the parking lot to enter the elderly park. The location of the parking lot is attempted to deal directly with the park.

## Bus stops and crossings.

The location of the public transportation stop must be close and go directly to the park. The stop must be continuous with the crossing for easy access to the park.

#### Availability of RAM.

Ram must be available from the highway to the sidewalk and from the sidewalk to the park, as well as to the toilet. Ram is the most important means for the elderly and disabled to make it easier to reach the park and reach higher or lower places. Ram must have the required degree of slope that is not more than 7°.

## Away from noise.

Parks must be far from sources of noise because the elderly need comfort and tranquility in the park. By feeling comfortable, the elderly can move without interruption.

#### Park material.

Materials that are used in planning an elderly garden should not be slippery for the safety and comfort of elderly activities, made of safe or special material. Some parts of the floor serve as a means of reflection, the width of the road in the park is sufficient and there is a color as a marker.

## Types of plants.

Selected types of plants that are not harmful to the elderly, have aesthetic value, can produce  $\mathrm{O}_2$  and improve environmental quality. There are enough shade trees, directing plants, ground cover and aesthetic plants.

## • Provision of railing in the park.

Railing is needed in the park to help facilitate the activities of the elderly in the park and in the toilet.

#### Away from pollution.

The location of the park must be far from unwanted pollution and has cool air.

## Color.

Coloring to mark the edges of stairs and stairs above and below. Color as a differentiator of the path between the elderly and disabled and the path for normal visitors.

#### • Lighting in the park.

The amount of lighting inside and outside the park is sufficient and not dazzling.

## Facilities in the garden.

There is a rest area (sitting group, bench) and it is not too far apart. The toilet has a hand grip and is easily reached, the toilet floor is not slippery. The drain is good to prevent slippery floors. Can be added to flower beds for wheelchair users (special designs) or other additional facilities that can be used by the elderly. Toilet that is easy to reach.

The provision of elderly parks is not only able to accommodate elderly activities in open spaces, but there is a need for provisions or criteria that are suitable as a special park for the elderly. Some things that can be taken into consideration in developing the criteria for an elderly park should not only be based on architectural aspects but also look at geriatric science in which there are important parts that are needed by the elderly for a public open space or an elderly park as their place to move, interact social and improve health and fitness.

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## 4 CONCLUSIONS

Observations show that the existence of parks in the city of Semarang is still limited to formality in providing facilities for the elderly and still not in accordance with the recommended conditions. From some observations it turns out that only Pandanaran park provides ram for the elderly and disabled, even though the existing ram (1: 5) does not match the minimum standard of the specified ram (1:12). Completeness of park facilities has not been fulfilled properly, especially parking problems and visitor convenience. So far the existing parks can only be accessed by people who do not have physical limitations. Planning for the elderly garden and the Elderly Regional Regulation must be realized as soon as possible considering the increasing number of elderly people in Semarang City. Planning an elderly garden must see the physical and psychological needs of the elderly which also involve geriatrics. Minimum area requirements for each village are not in accordance with prescribed standards.

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