

STUDY OF SATISFACTION: OPEN SPACE HOUSING IN THE SOUTH TANGERANG REGION

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Abstract – *Housing is one of the necessities that must be fulfilled by every human being so that in the procurement of housing, the government has issued its own rules and regulations. Human needs are no less important that related to house is the existence of facilities. One of the essential means that needs to be held on housing is to conduct social activities or interaction among citizens. However, developers as providers of commercial houses in private housing have provided open space is also intended as one place for residents to social activities and did not escape the requirements of reforestation. The problem is what needs to be studied, what the problem is. This research is designed to find out the extent of the successful use of open space that has been provided by developers in private housing. By evaluating open space user satisfaction on house, referring to certain variables both from the non-physical and physical side is the method to be done in this research. The results of the study state that open space in Grand Serpong 2 housing is quite good from accessibility factors. But the less maintained condition of the open space made the residents less interested in visiting the room so that the occupants' attachment to the space was not good enough. Hopefully, if the discovery of the response of housing, residents can be used as one of thought or consideration for the future for housing providers, to provide open space that can be utilized by the citizens.*

Keywords: *Housing; Private housing; Open space; Satisfaction; Environmental open space.*

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INTRODUCTION

Housing is one of the basic human needs that must be fulfilled. Along with the development of the times, although the shape of the house can be built in various types (horizontal and vertical), housing is still a requirement that cannot be eliminated. Housing growth rates also experienced a significant number. Many of the opening of new land for housing, be it middle to upper-class housing, middle class, and lower middle class. The bloom of residential development, in addition to the sharp eyes of developers, sees the potential of the property market in the region, is also due to the high occupancy rate (Tranghanda, 2015). One of the facilities in housing an open space. Housing should provide open space as a means of socializing residents housing. Comfortable, healthy, and affordable city residence is a critical issue in every developing country, particularly in urban areas (Bunawardi, Suzuki, & Yuasa, 2016).

Open space is an important space to meet the needs of the community for comfort, relaxation, and active activities or passive

activities beyond the usual daily activities of society (Carr et al., 1992). Through open spaces, urban communities can interact with each other. Open spaces can be provided from small areas on a housing scale, even private housing, for use by its residents. Through this space, the community can understand various things about the city and feel the multiple facilities provided (Manurung, 2018; Alfatih, Sartika, & Enh, 2018). Over time, urban developments with increased densities have led to a decrease in private open space with a lack of public open space (Azad, Morinaga, & Kobayashi, 2018). The importance of green open spaces for any community is that they provide a space for social interaction, relaxation, restoration and contact with nature and they offer opportunities for leisure activities (Abbasi, Alalouch, & Bramley, 2016).

Socialization between residents on housing is needed by the residents to get to know each other. This need is because human beings are essentially social being. So, socialization must be done by humans, including residents in a single housing,

although the housing is a cluster, which is private or closed. Neighborhoods have been a basic unit of city design throughout the recent history of urban settlements (Sivam, Karuppannan, & Mobbs, 2012). One of the facilities provided by developers in private housing is an open space in the form of a garden or a park, which is intended as a means for housing residents to do social interactions as depicted in Fig. 1.



Figure 1. Open space

Various forms of open space are provided by the developer for its citizens, as a condition of decent housing and also as the fulfillment of the above socialization needs. As stated in Act No. 1 of 2011 on Housing and Settlement Area in article 1 (one) that housing is a collection of houses as part of settlements, both urban and rural, equipped with infrastructure, facilities, and public utilities as a result of efforts to fulfill decent housing. In this case, developers, as commercial housing providers, do have to provide the means for interacting citizens. A successful public open space is comfortable areas where people of different backgrounds, genders, and ethnicities benefit from diverse opportunities (Askari & Soltani, 2019).

Many things happen today is people in many housings do not use the means provided by the developer. Conditions on open spaces provided by the developer are aiming to meet the housing feasibility standards, not as expected. Open spaces are more often in quiet conditions than residents, even though they are in a condition where people usually engage in social interactions, such as in the afternoon or at other times. It is important for landscape planners and managers to understand how urban residents' value and interact with green open spaces. However, the effect of spatial scale on values and perceptions of green open spaces has, to date, received little attention (Ives, Gordon, & Cathy, 2017).

The developer, in this case, as a housing provider, has provided one of the facilities or open space facilities as determined by

government regulations. What is happens when residents who have submitted these facilities, still do not use these facilities to the fullest? There are still many residents who do socialize activities, not in the space that has been provided, but the activities carried out in other areas. The renewal of the urban regions by developing green open spaces increases the overall quality of life and helps to reduce social exclusion. Urban green open space can help to constitute a framework where urban society and culture can develop, and to increase identity and a sense of community (Trejja, Brastuskins, & Bondars, 2013; Jennings, Larson, & Yun, 2016).

The formulation of the problem in this study is the demographics of the respondents; what the level of open space user satisfaction as a means of social interaction on housing residents; and what are the factors affect the satisfaction of open space users as a means of social interaction on housing residents?

MATERIAL AND METHOD

According to the Regulation of the Minister of Public Works Republic of Indonesia No. 05/PRT/M/2008, open space is the spaces within the city or broader area either in the form of area/area or in the form of elongated areas/paths in which its use is more open, essentially without a building. Open space, consisting of green open space and non-green open space. The green open space is an elongated/lane and clumped area, with more open use, where plants grow, whether naturally occurring or intentionally planted. Non-green open spaces are open spaces in urban areas that are not included in the green space, in the form of hardened land or water bodies. Public Open space has several functions: main functions (intrinsic) such as ecological functions and additional functions (extrinsic).

Open space is made to meet one's human needs as a creature that requires socializing activities (Shaftoe, 2008). The open space should be designed to accommodate one of the necessities of human life in terms of activities that are:

- a. Socialization, like gathering with other humans.
- b. Health, like to get clean air.
- c. Welfare, such as to perform relaxation activities.
- d. Place of learning, in the sense of learning about life.
- e. Tolerance, where space is used equally and maintained equally.

- f. Solidarity, wherein space can be used as a space for the delivery of aspirations.

From several sources that stated the purpose of making open space, it can be said that open space is made with some good goals, namely physical and non-physical objectives. Environmental goals are more towards the goals achieved on reforestation and non-physical purposes more to the social and its users.

In the Ministerial Regulation on Open space, an environmental open space is a public, socially, and aesthetically functioning land as a means of recreational activities, education, or other activities at the ecological level. The open spaces in this environment, apart from being part of the regional planning, are also a social means for residents. The garden environment that intended for use by residents in a particular neighborhood that is usually located at a neighborhood level. The open space area for neighborhood scale is a minimum of 250m², and the location of the open space should be within 300 meters of the houses that it will serve. The open space should also be planted with trees or trees at least 70% - 80% of the area of the open space, the rest can be pavement as a place to conduct the activities of its citizens.

According to Law No. 1 of 2011 on Housing and Settlement Area, housing is a collection of houses as part of settlements, both urban and rural, equipped with public utilities, utilities, and utilities as a result of fulfilling decent housing. There is one thing that must be fitted on housing is a means. Facilities are facilities in a residential environment that serves to support the implementation and development of social, cultural, and economic life. Housing is built, several objectives are to promote economic, social and cultural development and to ensure the realization of affordable and affordable housing in a healthy, safe, harmonious, organized, planned, integrated, and sustainable.

Any planning in the procurement of open space for citizens must meet specific requirements. It is intended that open spaces that have been built can use maximum for citizens who will be served by the open space.

Some of the excellent open space criteria (Hariz, 2013), as shown in Fig. 2 are:

- a. Easy access, in the sense that open space is easy to be visited by target users. In addition to easy to go, open space should also be easily visible to these residents.

- b. Attractive to users, in the sense that open space provided is a space that can please the people it serves.
- c. Comfortable and secure, in the sense that the open space should provide a sense of comfort and security to the citizens to serve.
- d. Binding the community, in the sense that built open spaces provide meaning and interconnection for the people it serves



Figure 2. Satisfaction Component of Open space (Hariz, 2013)

Open space in the procurement, leading to the open space can be used optimally by the user; it cannot be separated from the use of elements. Some elements that can be used in open space (Purwanto, 2007) are:

- a. The soft material is a material used in building open space in the form of smooth or soft materials, such as grass, shrubs, and trees.
- b. The Hard material, is a material used to build open space in the form of hard and artificial materials, such as garden lights and children's playing equipment.

A good and quality open space, it needs to be appropriately examined, that will later be referred to as a reference for Project for Open space (PPS). PPS has found that successful open space has four essential qualities: they are accessible; people are engaged in activities there; the space is comfortable and has a right image; and finally, it is a sociable place: one where people meet each other and take people when they come to visit (Nimpuno, 2017).

Open space should fulfill three crucial aspects, namely, responsive, democratic, and meaningful. Responsive means that open space must be able to be used for various types of activities and public interests. Democracy means that all levels of society must utilize open space without recognizing social, economic, and other differences for all forms of physical conditions possessed by humans. Meaning means that open space must have extensive interactions (Pratiwi, Patandianan, & Heryanto, 2015). Even open space on a

housing scale should have fulfilled these aspects.

The positive relationship between people and their environment is one of the priorities in terms of sustainability. Residential buildings are considered viable if they are designed by local cultural heritage, life, climatic characteristics of the location and environment is. Positive perceptions of green and open space were identified as significant predictors of high levels of neighborhood satisfaction, surpassed only by dwelling characteristics (Douglas, Russell, & Scott, 2018).

Open space is a public room or areas that can be used for ordinary purposes, but the time of use is not necessarily used at the same time. Thus, what is meant by shared use is in the context of the "space" (Mulyandari & Bhayusukma, 2015).

Developers in conducting commercial housing must meet one of the requirements of the ingredients, namely open space. Naturally, citizens can use it. This research is aimed to measure the level of open space user satisfaction for private resident residents residing in one cluster of housing and also to know what factors influencing the comfort of open space used as a means of social interaction on the resident's housing.

This research is expected to be used by housing developers so that in the design and facilities of open space for housing, the area can be used as possible by the residents of their housing. Any open space that has been created would cost in the procurement. Of course, the cost is expected to be useful for residents of the housing and not a less valuable space.

The research is one of private housing in the South Tangerang area. The location of South Tangerang is chosen because this area is an area whose housing growth rate is quite high compared to other cities around the outskirts of Jakarta. This open space has an area of 100 m², which provide benches, a reflexology area, and a small garden, as depicted in Fig. 3, and Fig. 4. Units houses surround the open space in a cluster.

The method of analysis to be used in this research are descriptive quantitative analysis. This method is used to measure the level of user satisfaction in the open space available in the housing of citizens, based on the perception of the local people. The data will be analyzed after the researchers get answers to the opinions of residents about the use of open space.

Evaluation Method will be used in this research. This method is used to look at some of the requirements that should be in the design of

open spaces at the environmental level. The data will be analyzed after the researchers get the data and then will be synchronized with the current literature review.



Figure 3. Open space Grand Serpong 2 Plan



Figure 4. Open space – Grand Serpong Res.

The target population in this study is the private residence in the area of South Tangerang (Province of Banten), the residential Grand Serpong Residence 2. All residents residing in the residential Grand Serpong Residence 2 is a population of this study. Profile of respondents who became the target in this research is with several criteria below:

- a. A resident who has lived in the housing for at least 6 (six) months. It is intended that residents in the housing at least have enough familiarity with the situation on the environment where he lived.
- b. Resident housing that has entered adulthood, i.e. citizens aged 15 years and over (Clause No. 330 Civil Code, Age 21 years old or already married including adults). The criteria are intended for researchers to get the maximum answer on the use of open space in the housing.

Data collection to be conducted in this research is to collect primary data and secondary data. Primary data is performed by observing the field and collecting data obtained directly from the

responses of housing residents at the location under study. As for the secondary data in this study will be obtained from collecting relevant literature and collect data from other parties or agencies related to the research.

RESULT AND DISCUSSION

Site of Research

There is a green open space inside the residential Grand Serpong Residence 2 built by the housing developer. The open space is located in the residential Grand Serpong Residence 2 amounting to one environmental open space of about 100 m². Green open space residing in this housing, is a non-natural green open space that functions more to open space as a beautiful environment, socio-cultural, and ecological.

As many as 83% or several 52 respondents are males and the number of female respondents as much as 17% or several 11 respondents. The number can be due to the number of respondents involved in this study obtained by distributing questionnaires to homeowners, where the homeowners in housing here are manifold, as shown in [Chart 1](#).

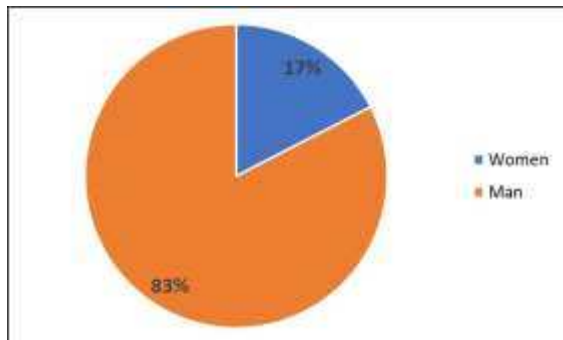


Chart 1. Gender of the respondent

Respondents who fill the housing is in the age category 31 years - 40 years with the number of respondents as much as 46 respondents or as much as 73%. Subsequent residents aged over 51 years of 8 respondents or as much as 13%. The location of the house located in the outskirts of Jakarta and the affordability factor of the economic factors dominate the owner of the aged 31 years - 40 years ([Chart 2](#)).

Housing in Grand Serpong Residence 2 is as much as 81% inhabited by the owner of the house (or as many as 51 respondents) and followed by the residents as much as 11 respondents or as many as 17% who rented in the housing.

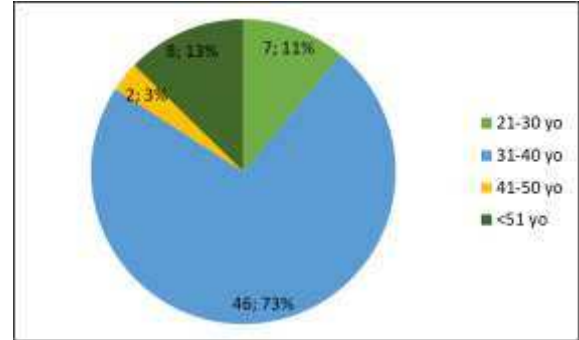


Chart 2. Ages of the respondent

A total of 49 respondents or as many as 78%, have occupied the house in residential Grand Serpong Residence 2 for more than 24 months. There are even those who have employed the housing for five years or since the beginning of the first phase of housing development carried out ([Chart 3](#)).

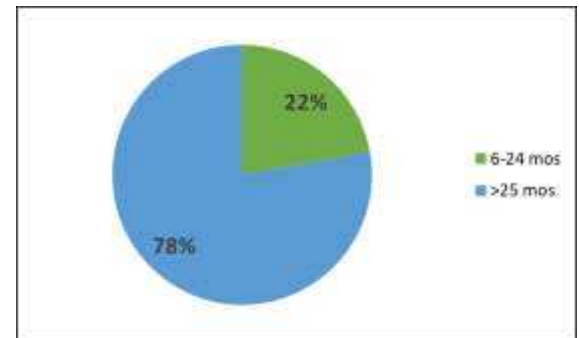


Chart 3. Status of Residents

Accessibility to the Open space

The level of satisfaction of housing residents in the open space in the resident's housing, for the availability of the houses to the residential opens space, is quite good and quite comfortable to reach by residents. The condition of the road leading to the residential open space is also in good condition.

The access to the open space on this housing is quite good from the respondent's view, with the number of respondents as much as 28 or as much as 44%. A total of 33 respondents or 52% stated that they strongly agree if the distance from their home to the residential open space in the category of comfortable distance when heading to the residential open space is not tiring. Respondents strongly agree that the road to the residential open space is in excellent condition with the number of 35 respondents or as much as 55% ([Chart 4](#) and [Table 1](#)).

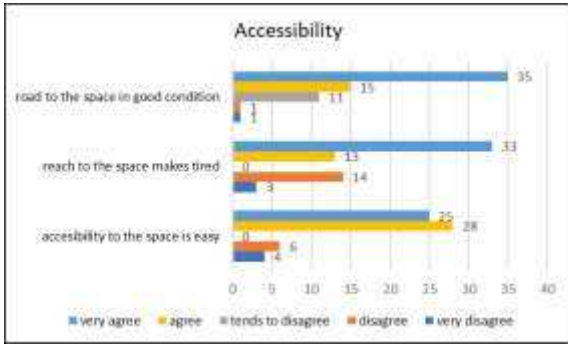


Chart 4. Accessibility Graph

Table 1. Accessibility Result in Percentage

Sub Variable	very disagree	disagree	tends to disagree	agree	very agree
accessibility to space is easy	6%	10%	0%	44%	40%
reach to space makes tired	5%	22%	0%	21%	52%
road to space in good condition	2%	2%	17%	24%	56%

Interest to the Open space

Many housing residents who do not visit the residential open space, this can be seen from the results of respondents who said rarely visited the residential open space. It can be caused because one of them is the activities that can be done in the residential open space is not much. Residents of housing if it also visited the residential open space is to socialize with the citizens.

A total of 20 respondents or 32% said they disagree that they visited the open space at least twice a week. A total of 15 respondents or 24% stated that they are less agree if the open space on the housing can accommodate more than two activities there. A total of 28 respondents or 38% reported that they do more social movements in the open space. A total of 24 respondents or 38% stated that they do not agree if the open space on their housing is visited by many inhabitants (Chart 5 and Table 2).

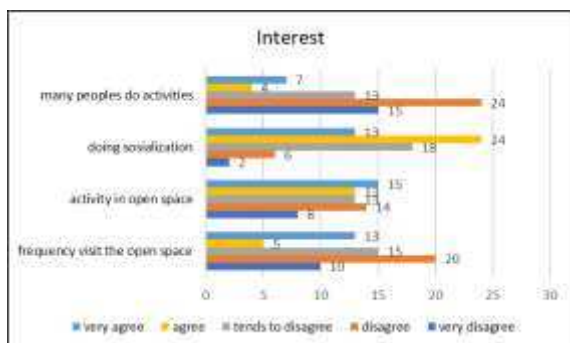


Chart 5. Interest Graph

Table 2. Interest Result in Percentage

Sub Variable	very disagree	disagree	tends to disagree	agree	very agree
frequency visit the open space	16%	32%	24%	8%	21%
activity in open space	13%	22%	21%	21%	24%
doing socialization	3%	10%	29%	38%	21%
many peoples do activities	24%	38%	21%	6%	11%

Comfortness in the Open space

Housing open spaces in less groomed and less clean can be one reason why people rarely visit it. Similarly, the security of the open space, housing residents feel the open space is less secure. While the area of the open space is less significant, so less able to accommodate residents of the housing both in terms of physical breadth and activities that can be done on the open space.

As many as 18 respondents or 29% stated that they agree and disagree with the open space on their housing is in well-maintained condition. A total of 19 respondents or 30% said that they are less amenable if the open space housing in a clean state. A total of 22 respondents or 35% who stated less agree if their residential open space in a safe state. A total of 27 respondents or 43% said if they disagree that the open space of the housing can accommodate the number of residents in the housing. A total of 23 respondents or 37% stated if they are less amenable if their residential open space can accommodate the activities of residents of the housing (Chart 6 and Table 3).

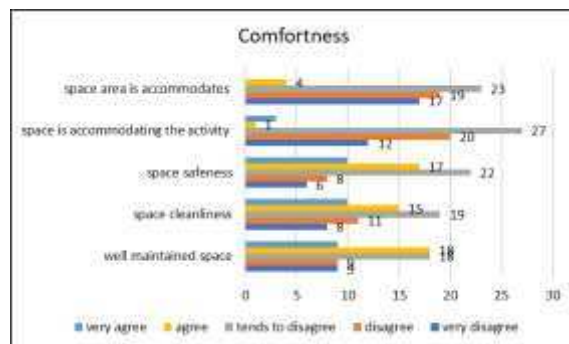


Chart 6. Comfortness Variable Graph

Table 3. Comfortness Result in Percentage

Sub Variable	very disagree	disagree	tends to disagree	agree	very agree
well maintained space	14%	14%	29%	29%	14%
space cleanliness	13%	13%	30%	24%	16%
space safeness	10%	17%	35%	27%	16%
space is accommodating the activity	19%	32%	43%	2%	5%
space area is accommodating	27%	30%	37%	6%	0%

Attachment to Space

Residents of the housing can be said to be less tied to the residential open space. The situation can be seen with the reluctance of housing residents to visit the residential open space when there is free time and also the lack of citizen participation in maintaining the residential open space.

A total of 22 respondents or 35% said if they disagree with the statement, they are happy to be in the residential open space. A total of 30 respondents or 48% stated that they did not agree that the open space on the housing makes them always want to come to the open space. A total of 18 respondents or 29% said less agree if other residents also participate in caring for open spaces on housing (Chart 7 and Table 4).

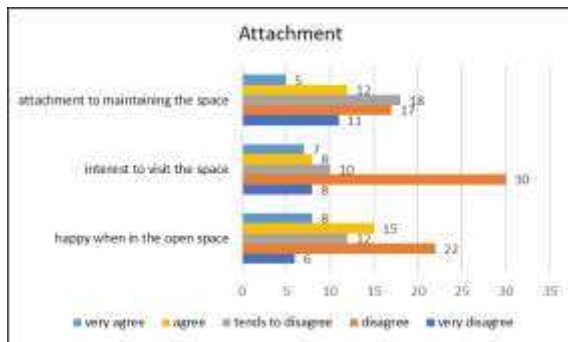


Chart 7. Attachment Result Graph

Table 4. Attachment to the Space Result Graph

Sub Variable	very disagree	disagree	tends to disagree	agree	very agree
happy when in the open space	10%	35%	19%	24%	13%
interest to visit the space	13%	48%	16%	13%	11%
attachment to maintaining the space	17%	27%	29%	19%	8%

CONCLUSION

Open space in the Grand Serpong 2 housing is an open space designed explicitly by developers for residents of its housing. Residents

outside the housing cannot use this open space because of its closed nature. In this open space in the housing, there are chair facilities, reflection paths, and a little garden.

The level of satisfaction of residents of the housing in the open space in the residential housing, for accessibility from residents' houses to residential opens space area, is quite good and quite comfortable to be reached by residents. Road conditions to the residential park are also in conditions the good one.

Many residential residents rarely visit the open space in its housing, which the case can be seen from the results of questionnaires. The reason is that their activities cannot be carried out in the open space of the housing. Residents of housing visit the open space housing only for socializing with other residents at some time.

Less maintained open space in the housing can become one reason why people rarely visit it. Likewise, with security in the open space, residential residents feel the park is not safe. While broad the park is not big enough, so it cannot accommodate the residents of the housing both in terms of physical breadth and activities that can be done in the open space.

Residents of the housing can be said to be less bound to the residential park. The condition can be seen with the reluctance of residents to visit parks housing when there is free time and also a lack of citizen participation inside guard the residential park. Housing open spaces should provide the means to engage many residents of housing, such as for children's playground, exercise, or gardening. In addition to the types of activities in the open space that need to be improved, it is also necessary to increase the size of the residential open space. Increased hygiene of residential open spaces needs to be done to get people to do their activities in residential open spaces. Need some improvement material of garden design so that residential open space become safe to use by a citizen. No less important is the addition of several facilities (such as children's play equipment or gardening areas) in this open space so that residents can be more interested in coming and using this space.

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