

Analysis Of Building Area On Residential Comfort

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Abstract: Homes are an essential aspect of human life. A house is where people live and carry out their daily activities. The home itself has several factors that can influence comfort. Starting from lighting, circulation, and climate, one of them is the room area. The size of the room itself can affect the comfort of the occupants because the size of the room will influence every activity carried out in the house. Apart from that, the size of the room will affect the space for movement, circulation, and so on, so the space required must be adjusted to the needs of the occupants. The research will use qualitative methods to analyze the area's comfort level and residents' comfort level in their activities. Based on the data obtained, this research shows that the area of the house can be a factor that influences inner comfort; this is because when the house is too narrow, the occupants will not feel comfortable because of limited space to move around and vice versa if the house has an area that is too large. This shows that the area of the house is one factor in the comfort of a home. Therefore, it is essential to pay attention to the area of the residence before starting construction.

Abstrak : Rumah tinggal menjadi aspek yang sangat penting bagi kehidupan manusia. Rumah tinggal adalah tempat manusia tinggal dan melakukan aktivitasnya sehari-hari. Rumah tinggal sendiri memiliki beberapa faktor yang dapat mempengaruhi kenyamanan. Mulai dari pencahayaan, sirkulasi, iklim dan salah satunya adalah luas ruangan. Luas ruangan sendiri dapat mempengaruhi kenyamanan penghuninya karena luas ruangan akan mempengaruhi setiap aktivitas yang dilakukan di dalam rumah. Selain itu luas ruangan akan mempengaruhi ruang gerak, sirkulasi dan lainnya sehingga luas ruangan yang dibutuhkan haruslah disesuaikan dengan kebutuhan penghuninya. Penelitian akan menggunakan metode kualitatif dalam menganalisis tingkat kenyamanan luasan terhadap tingkat kenyamanan penghuni dalam beraktivitas. Berdasarkan data yang didapatkan, penelitian ini menunjukkan bahwa luas rumah dapat menjadi faktor yang mempengaruhi kenyamanan baik batin, demikian dikarenakan saat rumah terlalu sempit penghuni tidak akan merasakan nyaman karena terbatasnya ruang gerak, begitupun sebaliknya apabila rumah memiliki luas yang terlalu besar. Hal tersebut menunjukkan bahwa luas rumah menjadi salah satu faktor kenyamanan rumah tinggal, oleh sebab itu sangat penting untuk memperhatikan luas hunian sebelum memulai Pembangunan.



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INTRODUCTION

A house is a place where humans live and carry out their daily activities freely (Muchlis & Kusuma, 2016). The house is also a place to provide optimal comfort so that humans can carry out their activities

properly and comfortably (Furqoni & Prianto, 2021). Nowadays, residents are only concerned with the beauty of a house rather than its comfort. In fact, residential houses must also consider the environmental and climatic conditions of the residence, because residential houses are very important advice for human life. The residence must provide comfort, tranquility, and a sense of security for its residents.

If interpreted, of course, the meaning of comfort for humans will vary. However, that comfort will provide comfortable conditions and will have an impact on human behavior. That is, comfort has a psychological influence. A comfortable house will be able to accommodate the psychological needs of its residents. Home as a place to live is certainly influenced by many factors. Not only factors as a place of activity, but factors of lighting, air, circulation, and arrangement of furniture must also be determining factors of a place to live. In addition, the room area factor is one that must be considered.

Human Needs

According to Maslow (1954) and Lang (1987), human needs consist of 6, namely as follows:

1. Physiological needs
2. Safety needs
3. Affiliation needs
4. Esteem needs
5. Actualization needs
6. Cognitive/Aesthetic needs

Of these needs, fulfillment is hierarchical because the frequency of fulfillment varies. Physical needs require fulfillment, most often related to life's struggles. The rarest needs are self-actualization needs and also aesthetic needs. The human need that will be needed as a place for personal activities is a house to live in.

Simple House

Every human being has different characters and activities. This is because there are human needs that every human being must meet. Therefore, a residence is needed to provide these human needs. The human need for housing as a primary need cannot be underestimated. As the population increases, the need for housing also increases.

The house as a place to live must meet the requirements of health and comfort. This can be seen from the lighting, air, and air temperature. Humidity in the room must also be considered. In addition, the area of the room must be considered, so that the inhabited house has an ideal area.

A house that has an ideal area will have

a positive influence and make it easier for residents to move. A house that is too narrow will affect the space for its residents. Vice versa, a house that is too big will be uncomfortable if only one or two residents live. Therefore, it is necessary to calculate the dimensions of physical size that must be aligned with the number and activity of its inhabitants. The minimum room standard threshold itself is 7.2 m² per person, but the standard in Indonesia itself is 9.0 m² per person (Khalawi, 2021).

Space needs per soul are calculated based on basic human activities, which include sleeping, eating, working, sitting, bathing, latrine, washing and cooking, and other space. According to the standard threshold, where the space requirement per soul is at least 7.2 m², to build a house with a capacity of three residents, a minimum building area of 21.6 m² is needed and with a capacity of four residents, a minimum building area of 27 m² is needed. Meanwhile, according to Indonesian standards, where the space requirement per soul is at least 9 m², to build a house with a capacity of three residents, a minimum building area of 27 m² is needed and with a capacity of four occupants a minimum building area of 36 m². According to these calculations, the land area needed to be able to build a house that is categorized as ideal is 60 m² to 200 m². However, according to SNI 03-1733-2004, the average room area based on air requirements as a standard for the minimum area of a simple house is 36 m². This calculation does not include the front terrace, back terrace, and family room.

According to Sahid (2001), the area of the room can also be determined according to 4 groups of rooms, namely:

1. Living room, family room and dining room
2. Bedroom
3. Kitchen
4. Bathroom and toilet

From the findings of the 2010-2011 R&D results, variables that can be used as a database for planning simple residential buildings and office space are as follows (Settlement Research and Development Center 2010; Settlement R&D Center 2011):

1. Indonesian human anthropometry
2. The user's main activities in carrying out his work
3. The furniture used
4. Tools used
5. Required space for movement and circulation

The ideal house area is a house that allows residents to live a healthy life and carry out daily activities well and comfortably. The minimum needs of the room need to pay attention to several conditions, namely:

1. Area needs per soul
2. Area needs per head of family
3. Building area requirements per head of family
4. Land area requirements per building

However, in fact, there are still many Indonesians who have residential houses with sizes below the ideal standard, for example in densely populated settlements in big cities in Indonesia (Putra & Hakim, 2021).

Building Area Factor

One of the problems that is quite important among various problems in residential areas is the tiny land area, which will impact the building area so that the use of the rooms inside will overlap. With the existing area, it is impossible to build or expand it horizontally, so almost all residential houses in Indonesia are growing vertically.

Vertical residential houses certainly

have some requirements regarding the comfort and safety of the building and its occupants. However, specific requirements should be addressed so that the existing residence will meet the needs of accommodating all the activities of its residents. Therefore, the need for a residence must be designed in such a way as possible before construction is carried out so that even if the residence is horizontal or vertical, the residence can create comfort and create a feeling of home for the occupants. Not only the building but everything related to the house must be carefully planned. Planning is important so that the house can be in accordance with what is desired and the house has an ideal area.

The area of the building will affect the movement of its residents. The smaller the area of the existing building, the more difficult it will be for residents to move and the less circulation there will be if the size is not appropriate. Vice versa, the larger the existing building area, the easier it is for residents to move. However, if the building is spacious but has few residents, it will also become uncomfortable. The impression is empty or empty. The building area must also be adjusted to the needs of the house in it, such as home furniture or others. Therefore, the building area must be adjusted to the needs of its residents (Suryo, 2017).

METHODS

This research was designed using qualitative research methods. The qualitative method is a method used to examine the condition of natural objects, where researchers are key instruments (Sugiyono, 2010). Qualitative research is research that intends to understand phenomena about those experienced by research subjects such as behavior, perception, and others holistically and by way of description in the form of words and language (Moleong, 2007). The choice of qualitative methods in this study is because the data collected in the study is a type of qualitative data so it requires a description related to the phenomenon that occurs, namely the broad influence of buildings on the comfort of residential homes.

Data collection techniques in this study were conducted by interviewing respondents using Google Forms with the aim of streamlining and streamlining the time of conducting research. Data collection techniques in this study are also carried out by conducting document studies, which is one way that qualitative researchers can do to get an overview through written media and other documents or made directly by the subject concerned (Asteria & Herdiansyah, 2022).

This study involved 65 respondents to help complete the study. Taking respondents as samples in this study was carried out by *purposive* sampling method, which is a sampling technique by determines certain criteria (Sugiyono, 2008). The criteria used for sampling are:

- Respondents understand discussions related to building design.
- Respondents have their own criteria and views on the building area on the comfort of residential homes.

RESULTS AND DISCUSSION

Results

This research was made by utilizing qualitative data through interview activities through Google Forms and document studies against many written document sources. The respondents in this study amounted to 65 respondents who were students and were selected based on predetermined criteria.

Based on the data obtained in this study, it can be seen that many residents live in various houses. However, most respondents, in one house lived were 4-6 residents. The types of houses inhabited also vary from type 21 to type 150. However, respondents mostly live in type 36 houses and at least live in type 150 houses. This is related to existing standards, where type 36 is the type that becomes the standard of the government (Putra & Hakim, 2021).



Picture: house type 36
Source: fotorumahminimalis.com

According to all respondents, the comfort of home is a factor that must be considered. Most respondents stated that the comfort arises from the area of the existing room. If the area of the room is not large, then the space for movement or activity in it becomes limited or slower than it should be. The equipment in the house also requires its own place. Then, if the area of the room is not large, will affect air circulation, natural lighting, and space for its residents. Reduced circulation Air can also be a result of the area of the room that is not ideal.

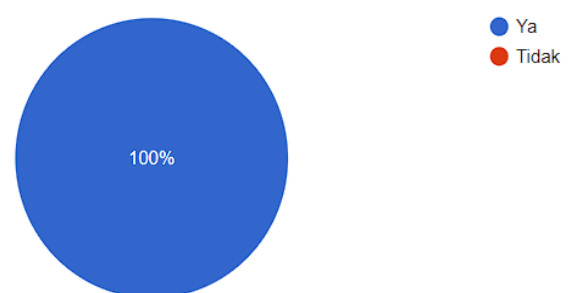


Figure: Percentage of respondents about the factor of room area affects comfort

A large area of the room will provide many uses. For example, residents can put many items according to the needs of these residents, or there is good air circulation. However, a large room area does not necessarily provide comfort in a residential

house. In fact, there were respondents who chose not to be comfortable living in a large room. Therefore, the area of the room in the house does not have to be large or small. However, the area of space in a residential house must be ideal, following the needs of its residents and following the standards of area per soul in Indonesia.

Discussion

From the existing data, the comfort of the house is a factor that must be considered. One of them is the area of the room which is a comfort factor. As many as 96.9% answered that the area factor can affect the comfort of the house. Therefore, 84.6% answered that a room that is too narrow will not provide comfort to the house.

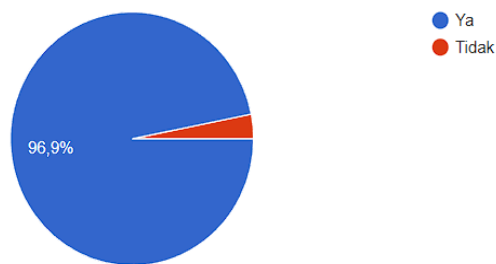


Figure: Percentage of respondents about the factor of room area affects comfort

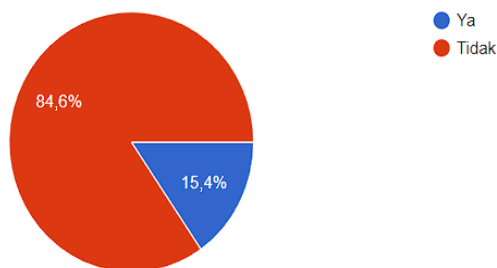


Figure: Percentage of respondents about a narrow room will provide comfort

The area factor of the room can affect comfort depending on the needs and views of the residents. According to the respondents, the area of the room can affect

the comfort of the house because if it is too narrow it will make residents feel restless because it seems like there is no space. If there are too many residents, it will also become uncomfortable if you live in a residential house that is too small and can cause a lack of air circulation. Then there are those who answer if it is wide, movement is not hampered. Items will be easier to arrange neatly and make residents comfortable. However, broadly speaking, the respondents answered that the wider a room will make the room feel cold, air circulation is also cool, and items are better organized. Vice versa, if the area of the room is inadequate, space for movement becomes difficult, activities become inhibited, and residents of the house become unable to move comfortably and have *their own space*. From the data obtained, as many as 70.8% answered that a room that is too spacious will Provide comfort to the house. In this regard, all respondents Answer that the room is narrow and makes the air feel stuffy. In relation to this, 96.9% answered that the area of the room has its own effect on a person's psychology.

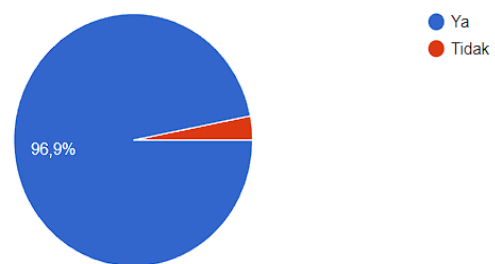


Figure: The percentage of respondents about the area of the room has its own effect on a person's psychology

Human psychology and attitudes can, of course, be influenced by the size of the building in the residence. Each resident receives and responds differently. The physical and psychological differences, as well as differences in personal experiences, make them different.

The resulting psychological effects are, of course, different. If the house is too small, the effects on the occupants can be stressful and psychotic, and some can even disturb the soul. Then, it can also impact social behavior, such as reduced helping behavior, a tendency to be prejudiced, and withdrawal from the surrounding environment. However, if your house is too big, it can also cause stress and reduce social behavior. Then, it can also cause a feeling of emptiness in the occupants.

CONCLUSION

The area of space in a residential house is one of the important factors in producing occupant comfort. Therefore, to improve this, every individual who wants to build a house should pay more attention to existing factors, especially the area of the room. The area of space created in each residential house must be ideal so that residents feel at home and for long-term interests because the size of the room in the house will also psychologically affect the occupants.

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