User’s Behavior Setting of Blok M MRT Station, Jakarta

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Abstract. Jakarta is the capital city of Indonesia with a very dense population, approximately four million of the thirteen million in Jakarta area traveling to and from the city every working day. MRT can be an alternative transportation solution for those who are also environmentally friendly. The life and economic activity of a city depend on how easy the city residents travel or their mobility and how often they can do it to various destinations in the city. The city of Jakarta, which has a traffic density, will have an obvious impact when the MRT has been running effectively. The change in attitude and mentality of people who are using MRT will be obvious, especially the changes in different individual’s experiences with specific patterns combined with particular objects in a particular space and time. Which in this case, the application of behavior setting can be a theory that can be explored as a built environment created by people, in connection with the above understanding, the behavior setting in architecture explains the relationship between human behavior and the environment, especially the architectural space. Therefore, the existence of the MRT, which represents a breakthrough in public transportation, will significantly influence the behavior set with its environment. Thus, through this theory, it will be seen the suitability between the behavior setting that is formed with the function of space at the Blok M, Jakarta MRT Station.

1. Introduction
The dense population of Jakarta leads to the problem of transportation is increasingly attracting political attention, and it has been predicted that without significant transportation breakthroughs, congestion will flood the city. MRT can be one of the solutions for people who are also environmentally friendly. Building a new transportation network system is will reflects the vision of a city. Even with the current situation, Jakarta must continue to improve various facilities and infrastructure, especially public transportation, since transportation is crucial. So that Jakarta, which has a traffic density, will have a very positive impact when the MRT is running effectively. The change in attitude and mentality of people in using the MRT will be obvious, especially personal changes when experiencing different spaces. Behavior Setting can be interpreted as a built environment created by humans as a place to carry out its activities by considering all aspects of the response or reaction of the man himself according to the human mindset or perception as a user [1]. Based on the above understanding, behavior setting can be concluded as the relationship between human behavior and the environment. So that through this case, the presence of MRT in Jakarta becomes a breakthrough in public transportation.

In this case, MRT as the public space is a space that functions as a place to accommodate community activities, both individually and in groups [2]. Public space is a shared means needed by
the community and can be visited directly by the community in a certain period time or indirectly in an indefinite period time [3]. Social interaction can occur in the form of active activities such as talking with other people and even carrying out joint activities and can also occur otherwise in the form of passive activities.

According to Laurens, the personal space that each person has is part of one's humanity [4]. Lack of interpersonal distance can create a lack of personal space resulting in discomfort, poor communication, and all obstacles to a sense of freedom [4]. Therefore, personal space plays a role in determining the quality of the relationship between an individual's relationship with other individuals [4].

1) Sociopetal space, sociopetal space is a space that leads to the axis and conditions people in opposite positions to meet each other face to face, so their personal space will shrink. So as it forms a regulatory space that encourages and encourages interaction between interpersonal relationships [5].

2) Sociofugal Space, in contrast to the previous one, sociofugal space is a space that seems to come out of a shaft so that it spreads in all directions and conditions people to throw away each other's views so that personal space on the front of humans is enlarged [5].

The concept of the presence of a setting behavior was born by Barker (1968), who developed research into individual behavior and traced the patterns of human behavior related to the physical environment [6]. Behavior Settings occur in the battle between individuals and their environment. The term setting behavior to explain the combination of certain behaviors and milieus [6]. It can be concluded that setting behavior is formed when there is a series of activities with other people when there are a number of specific behavioral patterns that are combined with particular objects within a particular space and time.

The structure and level of behavior regulation, so that it can be defined as a stable combination of activities, places, and criteria as follows [6]:

1) Standing behavior pattern
2) Surrounding environment
3) Synomorphy
4) Required for a certain period time.

To get data about patterns of interaction in that environment, it can be done by comparing the same part of the environment at different times or by comparing different parts of the environment. The need for a survey or observation is a specific interval to get the average of changes in fluctuations that occur due to other factors. Things that can represent setting behavior observation data include:

1) Human
2) Size characteristics
3) Object
4) Action pattern

By using observations of behavior setting will see the impact and changes in human behavior with the environment which is then linked to the function of the spaces in the MRT Blok M Station using public space theory which is sociopetal space and sociofugal space. Thus, the author can get to know the social system in a setting so the patterns of human behavior can be seen which then produce the manifestations of the perspective and lifestyle of the people who use MRT in Jakarta.

2. Method
This study is intended to explain the behavior setting of the visitors in Blok M, MRT Station, which have several behaviors in a certain time and place. By using descriptive methods, the author gets theoretical references from books, journals, and electronic media sources. The development data comes from the literature study and for the personal documentation comes from a field survey. Observations have been made in the period of March to April, on different times and day, morning (07:00-09:00), day (12:00-15:00) and evening (18:00-20:00). The chosen MRT Station would be Blok
M MRT Station because it is located in the central of Jakarta and is the only station that is connected to a Plaza.

3. Results and Discussions

3.1. Observation Data

Blok M MRT Station is one of the stations located in the center of the city that is very often used by people going back and forth, Blok M MRT station located in South Jakarta which is also the only station that is directly connected to Blok M Plaza Mall, making this station unique. This will discuss the location of both the destination and its surroundings, the use of space and the activities and interactions formed within the station. So that in this case study, it can aim to explain and analyze the pattern of the behavior setting formed by visitors to the Blok M MRT.

The existence of human interaction with the environment can form a variety of activities, especially in public space, which is a gathering space for various kinds of humans. In this case study, public space can be divided into three, namely, essential activities, choice activities, and social activities [7]. However, the authors only use one of these activities, which is an crucial activity to classify observations of the main activity spaces where these activities involve the human movement system which is more often done than optional or social activities. It is appropriate for every activity that will always need space so that the critical activities contained in the Blok M station can be grouped as follows:

1) Ticket Transaction Space
2) Vertical Transition Space
3) Waiting Space
4) Platform Entrance and Exit Space

3.1.1. Human. In this observation, humans act as subjects in which humans are directly involved in activities that are formed. Different activities are shaped by various types of visitors who have their characteristics. Therefore, different types of visitors can provide different interactions with each other. Thus, based on the observations of the authors, the types of visitors to the Blok M MRT station can be grouped such as personal, pair, family, group of mothers, group of fathers and group of teenagers.

1) Size Characteristics, size characteristics can be seen from how many visitors and how long the activity takes place in a setting. In this observation, the writer can categorize it into different times also weekdays and weekends.

|                  |      |                        |
|------------------|------|------------------------|
| **Table 1. Numbers of Visitors in Blok M MRT Station** |      |                        |
| **Day** | **Time** | **Total Visitors** |
| Weekdays | Morning | ± 3000 people |
|          | Noon | ± 2000 people |
|          | Evening | ± 2800 people |
|          | Morning | ± 3200 people |
| Weekends | Noon | ± 3600 people |
|          | Evening | ± 4000 people |

2) Object, in a setting, objects are an essential role in the formation of social interactions or activities. There are various types of objects that are in the Blok M MRT station, but the authors only observe objects that have the most significant influence in the circulation of visitors at the station including the ticket counters, escalator, stairs, elevator, bench, and platform.
3) Activity Pattern, action will occur if the presence of a subject is human. As we know that humans are social beings who will always form interactions with each other or their physical environment. With the occurrence of actions in a certain period time can form a pattern. Specific patterns of action are combined with particular objects and certain times within the boundaries of space, so in this case study, the author’s group several activities that are often carried out by visitors such as waiting/queuing, sitting on a bench, taking photos, strolling around the station, playing and socializing. These activities are carried out both with people who know or who do not know. The occurrence of these activities is due to the orientation of the supporting object or because of experiencing the conditions that are being faced together.

3.2 Behavior Setting on Main Activity Spaces
Following our observations, the activity spaces that have been grouped into ticket transaction space, vertical transition space, waiting space and platform entrance and exit space are the main activity spaces in the Blok M MRT station. If associated with Laurens' theory wherein public spatial planning, there are two patterns, namely the sociopetal space pattern and the sociofugal space pattern. So with the results of observations, the author can classify the main activity space at the Blok M MRT station in the two patterns of public space.

1) Main Activity Space in Sociopetal Space, in a setting, the sociopetal space is a space order that facilitates and triggers social interaction. This arrangement can be made like face-to-face or circular orientation so that it can communicate with each other well. With the results of observations, the main activities that are categorized in the sociopetal space, namely:

Ticket Transaction Space

![Figure 1. Social Interaction in Ticket Transaction Space.](image)

Ticket transaction space is included in the sociopetal space pattern where social interactions are expected to occur with factors that can trigger an interaction. This space also aims to transact tickets or ask for information, and these two things require communication and interaction between ticket sellers and visitors. With the results of observations and analyzes that have been linked to the theory of setting behavior, it can be concluded that the behavior settings that occur in the ticket transaction space which is the occurrence of social interactions that we can see in transaction activities and queuing can meet criteria as a sociopetal space pattern. Although there are unwanted spaces such as gathering children to play in this space, this does not affect the interaction between ticket sellers and visitors. However, the interaction between them can take place well with the existence of milieu boundaries that support like the surrounding objects found in the ticket transaction space. In addition to helping direct visitors, it helps plan spaces that are formed and predictions of actions that occur so that circulation in this space can run smoothly. The action pattern that matches the function of the space, it can be concluded that the ticket transaction space is by following the pattern of the sociopetal space.

2) Main Activity Spaces in Sociofugal Space, in contrast to the sociopetal space, on the other hand, sociofugal space is a spatial structure that impedes social interaction, so that humans can be
separated from each other in the purpose of prioritizing personal space in the public space. With the results of observations, the main activities are categorized in the sociofugal space, namely:

Vertical Transition Space

![Figure 2. Social Interaction in Vertical Transition Space.](image)

Vertical transition space is a space used by visitors to make the transition between the upper and lower chambers. This space is included in the pattern of the sociofugal space because the function is intended only to bring visitors from the bottom up or from top to bottom, so there is no object that supports the occurrence of social interaction, but there are objects that support visitors to follow according to functions and direction. But things that occur in this space are different from the functions of space, with various factors, there are many activities that occur not fully in accordance with the functions of the space. The occurrence of activities such as taking photos and waiting in front of the elevator, which ultimately triggers social interaction between visitors. So that it can be concluded that the vertical transition space that should be included in the sociofugal space pattern, precisely the interaction should occur in the pattern of the sociopetal space.

Waiting Space

![Figure 3. Social Interaction in Waiting Space.](image)

The waiting space is a space where visitors use to wait for the arrival of the platform. This space is included in the sociofugal space pattern because it has a function only for visitors to wait, as for supporting facilities such as benches located far apart and linearly oriented for visitors to rest and wait comfortably. However, things that happen are not entirely by following the functions of the space. The formation of gathering points, which are the result of the activities of chatting with visitors to each other and of course social interactions, occur in this space. If you look at the space settings, the space and the availability of these benches are actually things that support interaction, so that visitors most often use this space to interact with each other. Therefore, it can be concluded that the waiting space should be included in the sociofugal space pattern, but often there is a social interaction that deviates from the function of the space.
Platform Entrance and Exit Space

Figure 4. Social Interaction in Platform Entrance and Exit Space.

The platform's entrance and exit space is the final stage of the visitor's circulation if the visitor starts the circulation from the ticket transaction space. The function of this space is the space for visitors to queue while waiting for the platform or while waiting for other visitors to get off the train. With the orientation of the one-way platform area, of course, visitors are expected to queue by marching in line in the queued area that has been restricted by stickers. However, the existence of space that has been provided for visitors queuing actually gives an opportunity and triggers visitors to interact with relatives or other visitors who are in front or behind. As for activities such as photos together in front of the train because it is an attractive spot for visitors and with the existence of these activities, triggering social interaction. Therefore, it can be concluded that the space in and out of the platform should be included in the sociofugal space pattern because there are various social interactions that are outside the function of the space.

By understanding the main activity space with the suitability of space functions according to the observations at the Blok M MRT Station, it can be concluded that the formation of social interactions can happen at various points in each space so that not all spaces are following their functions. It is due to several factors, and based on the results of observations, and the author can gain out the factors that have a significant impact on the formation of social interaction.

3.3 The Relationship Between Factors Forming Social Interaction in Affecting the Shift in Function of Space

Based on the results of observations regarding the factors of formation of social interactions in influencing the shift in the function of space in activities at the Blok M MRT station, conclusions can be drawn as follows:

Table 2. The Relationship Between Factors Forming Social Interaction in Affecting the Malfunction of Space

| No. | Factors  | Ticket Transaction Space | Transition Vertical Space | Waiting Space | Entrance and Exit Platform Space |
|-----|----------|--------------------------|---------------------------|--------------|----------------------------------|
| 1.  | Object   | ***                      | **                        | ***          | ***                              |
| 2.  | Shade    | *                        | *                         | **           | *                                |
| 3.  | Lighting | *                        | *                         | ***          | *                                |
| 4.  | Access   | **                       | ***                       | *            | ***                              |

Information
*** Very Influential
** Influential
* Less Influential

Based on the table data above, it can be seen that the four factors have a significant role in triggering the formation of interaction at Blok M MRT Station, Jakarta. These factors are milieu physical factors that can facilitate the comfort, attractive spots for taking pictures, cleanliness, and...
security of visitors physically so that visitors are unwittingly in the comfort zone. With these conditions, social interaction can be formed easily in various supporting spots. In the Blok M MRT Station, these factors can help visitors to use space according to their functions, but can also have an impact for visitors to shift the function of space-related to the theory of suitability of public space patterns. Therefore, the role of the layout of a physical milieu in a design can be crucial in influencing patterns of human behavior, especially in shaping social interaction.

4. Conclusions
Blok M MRT Station is one element of the development orientation transit development program that was present in Jakarta recently. The presence of the MRT Station is an alternative transportation solution for people who are environmentally friendly so that the station's transit space is one of the breakthroughs in Jakarta societies. Considering that MRT is a new thing for the people of Jakarta, formerly the setting behavior that happens will be different from other transit places that were previously present in Jakarta. MRT Station is a public space used by the Jakarta society to travel from one place to another, in this research the author uses the theory of public space patterns which are classified into two, specifically sociopetal space and sociofugal space. Based on the results of observations, the author can categorize the space of human activity in both patterns of public space using supporting theories.

In using the theory of behavior settings, some factors play a role in representing observational data. A setting needs analysis of functional systems that have a variety of physical activities and components so that the results of observations can be more accurate and measurable. By observing the setting behavior that occurs in each of the main activity spaces in the Blok M MRT station, there will be a shift in the function of the space with the theory of the pattern of public space.

Overall, it can be concluded that the main activity space of the Blok M MRT Station is not completely used in accordance with functions that should only be used as a transit space, but the development of new spaces such as the formation of children's play spaces, photo space and space with each other the effect of social interactions by station visitors. In this case study, the Blok M MRT station, Jakarta, there are four main activity spaces that the authors have classified into the functions of the pattern of public space. Based on the figure above, it can be interpreted that the ticket transaction space is following its function, included in the category of sociopetal space due to the formation of interactions between ticket sellers and visitors who are designed in such a way. But in contradiction to the vertical transition space, waiting space and platform entrance and exit space, the three spaces are not fully following the function of space that should be, where the development of instantaneous social interactions that can not be involved in the category of sociofugal space.

It cannot be denied that the social interactions happen also affected by the Indonesian people’s culture itself, basically, have the character to interact with each other especially with the addition of

![Figure 5. Result of Behavior Setting Observation with Function of Space at Blok M MRT Station, Jakarta.](image-url)
the MRT presence which is a new trend in Jakarta. It can be supported by the Theory of Reason Action where each visitor has their intentions and goals when coming to this station to form a space for social interaction that is present in each main activity space at Blok M MRT Station. The presence of interaction is a manifestation of this intention so that the phenomenon of the MRT as a new trend in Jakarta should be suspected of being a temporary euphoria of visitors to Jakarta. However, this will be a permanent phenomenon when viewed from the types of visitors who come from outside the region and from generation to generation, which makes the MRT is not only a fast transportation mode but rather an interesting thing like a recreation because it can enhance a new perspective in seeing the architecture of Jakarta.

The analysis theory of setting behavior can benefit architects to understand the behavior patterns that occur and anticipate the future based on the perception of the tendency of people to behave in specific ways, to then accommodate the wealth of these behaviors into the design of a building. So it becomes vital to understand how user needs can be appropriately facilitated following the functions of space in structuring and planning.

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