

Child-Friendly Space in Kampung Warna-Warni through Playing Behavior of Children Approach

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Abstract

Urban public space, including village public spaces, is formed by social construction in its environment. This sociability of community has its own social value. In the urban kampung, the local community and the children took a deal to adapt to the environment. Therefore, the children create their own play spaces. Kampung Warna-Warni has unique characteristics such as being located in a steep topography around the Brantas River basin, as a thematic tourism village, and as a community housing with high density levels of the building. The focus of the research is developing the realization of a child-friendly space by taking into account the needs of other public space users. This research used a qualitative method by descriptive approach. This reports the findings of children's play patterns in Kampung Warna-Warni, patterns of public space utilization, and evaluation based on child-friendly space parameters. We examined this study by using descriptive analysis including observing children's playing patterns through behavior maps and evaluating the parameters of child-friendly space. Our findings in this study reveal that Kampung Warna-Warni is a child-friendly play space because children have the freedom to play in terms of accessibility, comfort, safety, and availability of facilities. However, according to the parents of the children, there are concerns about the safety aspect when children play around the river. Nevertheless, the freedom to play for children is the main thing in establishing child-friendly play spaces.

Keywords: *Behavior Mapping, Child, Child-Friendly Space, Evaluation, Public Space*

INTRODUCTION

The city is a space that requires public space as a place for social interaction between people. Urban public spaces find their meaning with human activities, and more than physical role, they are important for creating social interactions among citizens, furthermore the interaction with the environment (Soltanian & Mohammadi, 2015). In addition, public spaces are more than just an experience of space, it has its own social value (Rad et al., 2013) Public space is an open living space for city residents that can be freely accessed by the entire community (UN-HABITAT, 2018). A good public space is a public space that has the criteria of being visually beautiful, comfortable, easily accessible, safe, and flexible (Dyer & Ngui, 2010). In addition, a good public space is a public space with meaningful activities for people (Mehta, 2014). Public space is created with an inclusive concept with the term "public space for all". This shows that everyone should feel welcome, and included, and not be discriminated against based on gender, age, ethnicity, religion, cultural background, socioeconomic status, and/or personal values when in space (Rátkai et al., 2022.).

Inclusive public space refers to physical values as well as social values that exist in space.

An ideal inclusive public space should be accessible to everyone, not constrain people's behavior, allow spontaneous activities, be able to promote sociability, and get its social value (Li, et al., 2022). The social value of public space is very broad and can mean people's attachment to the locality and the surrounding environment, as a place that has the opportunity to mingle with other people, as well as people's memories of that space or as a landmark that is formed in the memory of each individual (Dines and Cattell et al., 2006). Public spaces can provide opportunities for social interaction, social mixing, and social inclusion, and can facilitate the development of community ties (Rowntree, 2007). The understanding of space as having social

value is embodied in the theory of Henre Lefebvre (1990) which defines that space is not only formed from physical construction but also from social construction (Gottdiener, 1997). The process of space formation can be defined from three aspects, namely perceived space, conceived space, and lived space. Space can be formed due to perceptive aspects that can be captured by the five senses, formed by thoughts contained in the planning process, and can be formed due to life processes that exist in the environment (Lefebvre et al., 1990).

An urban village is one of the residential spaces that informally develop and then becomes an urban area (Wibowo et al., 2012). The space is formed because of the aspect of lived space, where space is formed because of the processes of everyday life so that a village is created as a space that has social value (Rowntree, 2007). There is interaction between community groups, including gender and age, blending into the formation of spaces such as the use of public spaces in the form of spaces produced by the community, such as village alleys, fields, terraces or courtyards in villages, and riverbanks (Laksono et al., 2022).

Kampung Warna-Warni Jodipan is a village that has unique characteristics, which are located on a riverbank, a tourist village, and a high density of buildings. The condition of the village makes the local community required to adapt to the new environment. On the other hand, the response that arises when defining space makes people need to reconstruct their relationship with space (Oktarina, 2018). The human response to space is to produce a comfortable place to live. Including children who demonstrated some of the ways humans deal with the environment (Girouard, 1985). In childhood, a period of play is needed which requires space to play freely and be creative. Playing is also useful for fostering a sense of creativity, training the brain to think, overcoming conflict, training empathy, and making discoveries (Pratiwi, 2017). When children's creativity develops, children often find new places and activities according to their imagination when playing (Saptorini, 2011). Children who are closely involved in the play period show free play patterns and form their own play space (Roerig & Evers, 2019).

Engaging in neighborhood play spaces may be one strategy to afford children greater access to the outdoors environment (Alyani & Herlily, 2021). To plan and design a child-friendly spaces successful, engaging the neighborhood play space is understanding which physical and social elements will spark children's curiosity and support their desire to explore, build, and initiate in the play-space. Further research on play in natural settings such as in neighborhood play-space is necessary to guide the creation of natural play-spaces. This research should include the identification of outdoor play environments that are most frequently utilized, an understanding of the play areas or features that children in different age groups prefer, and a recognition of how different settings or conditions can enhance engagement with nature (Cox et al., 2018). Based on the background, the research reports on the findings of child-friendly spaces in Kampung Warna-Warni through playing behavior patterns childrens' approach. The purpose of scoping approach aims the evidence of (1) play pattern activities of children on public space utilization, play frequency, and time for playing (2) the characteristic of public space include accessibility, comforts, safety, and public space facilities (3) the evaluation of each characteristic based on children and local communities perception. Therefore, identification is needed to compose the concept of a child-friendly space involving children's perceptions.

RESEARCH METHODS

A qualitative method with descriptive approach was adopted, with data sources including observation, questionnaire, and interview. The population in this study was 34 children, all children of playing age, between 3 to 12 years who lived in the Kampung Warna-Warni, Jodipan. Apart from children, the population in this study are parents of children. So, children aged 3 to

12 years and parents of children are also included in the research subjects. Furthermore, the population in this study are parents of children to know the perspective of parents. So, children aged 3 to 12 years and parents of children are also included in the research subjects.

The samples in this study were divided into two categories, where the first category was a sample for behavior mapping and the second was a sample for conducting questionnaires and interviews. Behavior mapping is a research tool used to observe children's play behaviors in natural spaces. A customized protocol can be tailored to meet various research needs, providing detailed information about types of play, frequency, and social dynamics. This data helps design professionals and advocates create outdoor play spaces that offer diverse, meaningful, and enjoyable nature play experiences for children (Cox et al., 2018). The sample at the time of the questionnaire in this study was included in the non-probability sampling. According to Sugiyono (Susilana, 2015), nonprobability sampling is a technique that does not provide equal opportunities for each element or member of the population to be selected as a sample. The behavior mapping sample was children who played in public spaces at predetermined times, from morning to evening on weekdays and weekends. Questionnaires and interviews sample in this study used a purposive sampling technique. The purposive sampling technique is included in the non-probability sampling technique. The target respondents when using purposive sampling have been determined at the beginning of the study (Mulyatiningsih, 2011). The sample in the questionnaire and interviews in this study were children aged 6 to 12 years, it was 33 children and their parents.

RESULT AND DISCUSSION

Children’s Characteristic in Kampung Warna-Warni

Based on Hutapea's (2015) findings, there are three stages of child growth consisting of the exploratory stage (age 2 and under), mastery stage (age 2-6 years), and achievement stage (age 7 and above) (Hutapea et al., 2015). In the study locations, the range of children who are not getting into school yet is under 3 (three) years. At that age, children are included in the exploratory stage, where children are still learning to recognize objects and recognize the environment.



Figure 1. Interview with Parents and Children

At this age, children tend to carry out educational activities informally from their parents and carry out activities under full of parental supervision. Based on the results of the interview with the head of the neighborhood (RT) in Kampung Warna-Warni, the number of children in Kampung Warna-Warni, is obtained as follows:

Table 1. Children’s Characteristic in Kampung Warna-Warni

RT	Levels of Education	Age (Years Old)	Male	Female	Total (People)
06	Under Kindergarten	<3	-	-	-
	Kindergarten	3-5	3	2	5

RT	Levels of Education	Age (Years Old)	Male	Female	Total (People)
07	Elementary School	6-12	4	4	8
	Under Kindergarten	<3	2	-	2
	Kindergarten	3-5	1	2	3
09	Elementary School	6-12	3	3	6
	Under Kindergarten	<3	-	1	1
	Kindergarten	3-5	1	2	3
Total (People)			19	16	35

Source: Interview with The Head of RT 6,7, and 9 Kampung Warna-Warni

According to Hutapea's (2015) findings, children will enter the mastery stage in the age range of 2 to 6 years, but at the study site, it was found that the age range of children at the mastery stage is the same as the level of Kindergarten education, which is around 3 to 5 years. The age range of kindergarten children is included in the mastery stage, where at that stage, children develop with games and playing with friends. Playing DIY (do-it-yourself) games can increase children's creativity and children will feel entertained. At kindergarten age, when children play, sometimes they are still under the supervision of their parents, for example, just playing surrounding neighborhood in their home. Furthermore, the range of Elementary School age children is around the ages of 3 to 12 years. This age range is included in the achievement stage, where children are able to play in groups and have started to understand the rules in games, for example, sports games such as soccer, hide and seek, and go back to the door. In the age range of elementary school children, especially at the 5th or 6th-grade level, children usually rarely get full supervision from their parents.

Patterns of Children’s Playing Activities

Patterns of children's activities were identified by children's daily activities and children's playing activities during weekdays and weekends. Children in Kampung Warna-Warni Jodipan are dominated by the age of children at the elementary school education level, where these children have their main activity, which is studying at school. In addition, children have non-formal learning activities, help their parents, and play when they have free time. The figure showing the children's daily cycle is divided into weekdays and weekend patterns as follows:

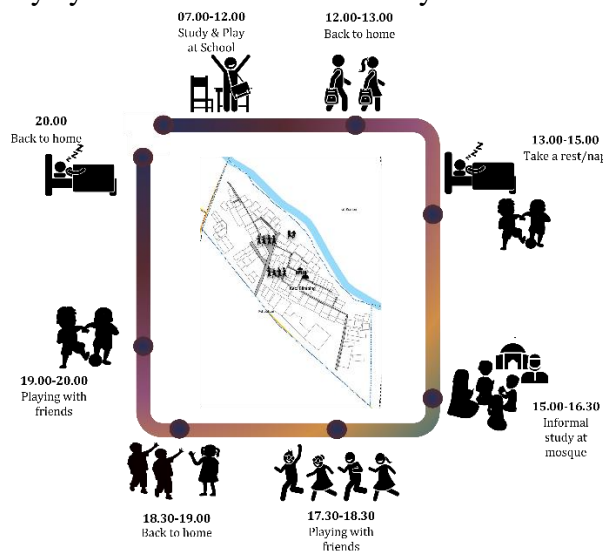


Figure 2. Childrens’ Daily Activities on Weekdays

Source: The Result of Observation and Interviews with Children

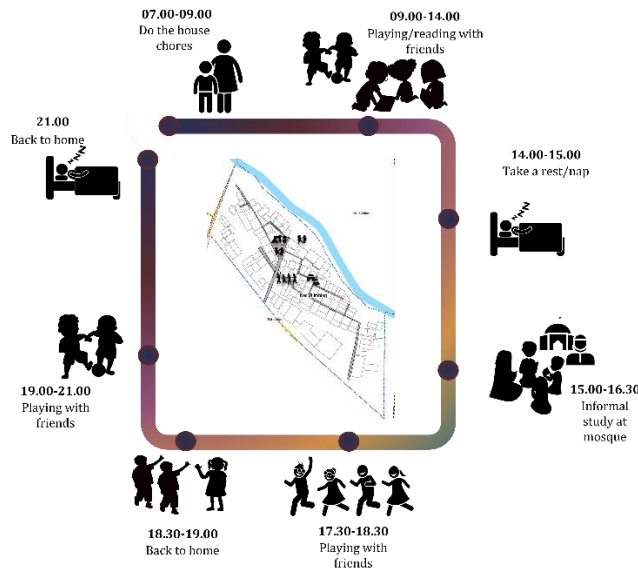


Figure 3. Childrens’ Daily Activities on Weekends

Source: The Result of Observation and Interviews with Children

Children's games consist of active and passive types of play. Active play involves more physical movements, for example, soccer, hide and seek, role-playing, and cooking. Passive play involves less physical movement, for example playing online games, watching television, and playing while reading a book. The types of games played by the children in Kampung Warna-Warni Jodipan are active games that are usually carried out in groups. Children play in non-formal public spaces such as roads, road nodes, rivers, riversides, and fields. Games played in groups include football and sandal throwing which are dominated by boys, hide and seek, role-playing, cooking, and free playing by both male and female kids. Here are the behavior maps of childrens’ playing pattern in public spaces.

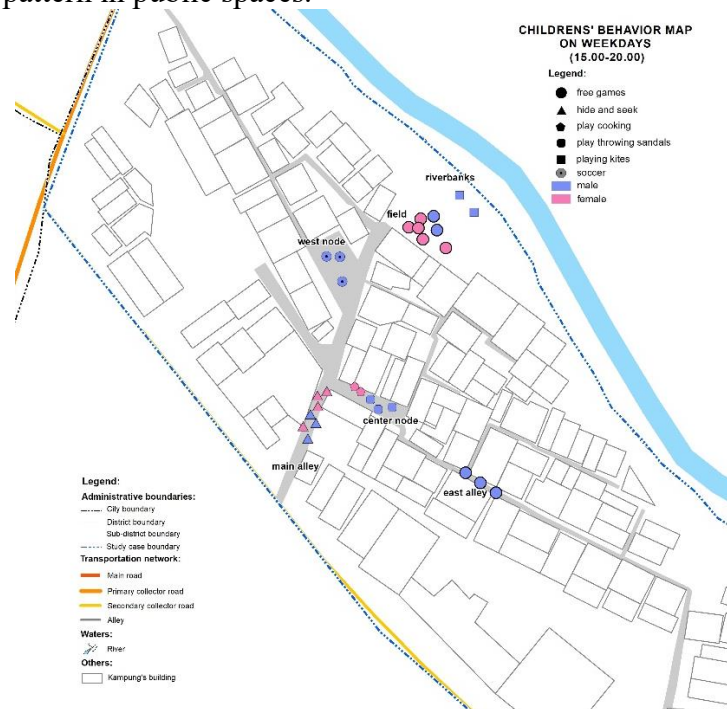


Figure 4. Childrens’ Behavior on Weekdays (15.00-20.00)

Source: The Result of Observation and Interviews with Children

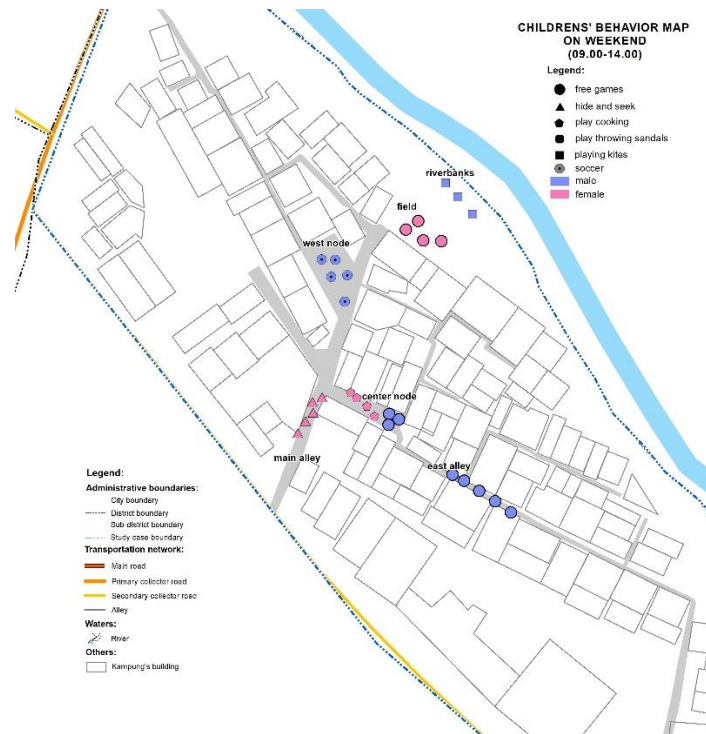


Figure 5. Childrens' Behavior on Weekends (09.00-14.00)
 Source: The Result of Observation and Interviews with Children

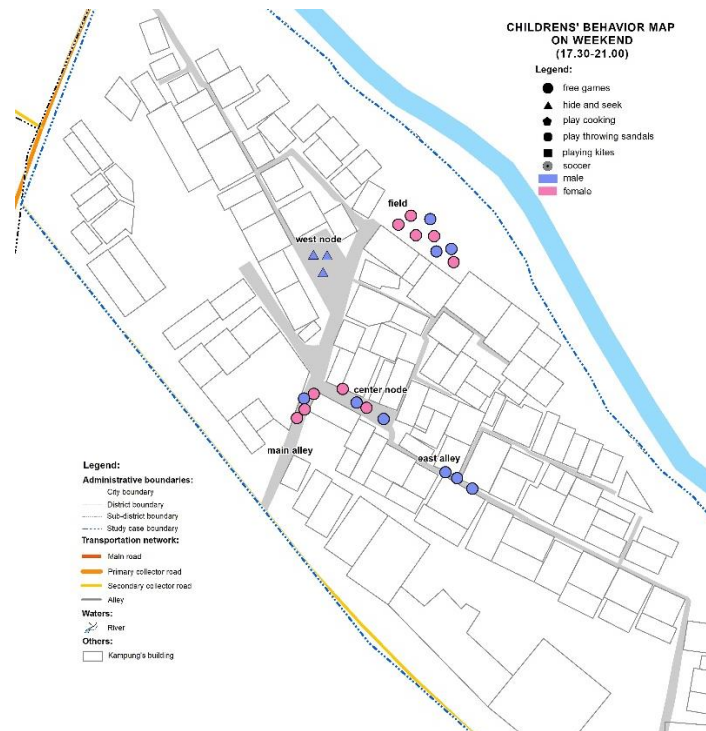


Figure 6. Childrens' Behavior on Weekends (17.30-21.00)
 Source: The Result of Observation and Interviews with Children

The pattern of utilization of public space as a children's play space can be identified from the results of observations, questionnaires, and short interviews with respondents then carried out by analyzing behavior mapping. On weekdays, especially in the morning and afternoon, children play in public spaces at school, so that public spaces in Kampung Warna-Warni are not used for children's playing. In those days, existing public spaces functioned as accessibility for

the communities and visitors. At the evening on weekdays, children started to play with friends after they got informal study at the mosque.

On weekends, children use the public space in Kampung Warna-Warni as a play space from morning to evening. In the morning and afternoon, the boys played soccer on the field and all children played free games. Most of the children in Kampung Warna-Warni use the public space as a place to play from the afternoon to the evening because from morning to noon, the children usually do activities to help their parents or watch television at home. From the afternoon to the evening, children use public space as a place to play which includes fields, a main alley, a riverside, and nodes.

According to the children's daily activities and playing activities, the friendliness of public space as a playing space for children in Kampung Warna-Warni was identified by four indicators, accessibility, comforts, safety, and playing facility. Those indicators were constructed by studying the literature on inclusive public space. The results of parents' and children's perceptions of child-friendly playrooms consist as follows:

1. Accessibility is an important indicator in reviewing child-friendly public spaces or play spaces. Accessibility can be identified as being able to reach by walking, being able to reach easily without using a vehicle and passing through busy roads, affordability from homes, affordability from public facilities, and being easily accessible to people with disabilities. All public spaces are included in public spaces that are easy to access. There is one parameter that is not supported at all locations, the parameter that can be reached easily by people with disabilities. All locations do not have guiding blocks or special road's facility for people with disabilities.
2. The comfort indicator is analyzed from the following parameters, free of charge, using non-thorny and shady vegetation, adequate lighting, and the environment is free from the smell of garbage and other environmental disturbances. Based on the six locations of public spaces as children's playgrounds, all locations are free of charge. Regarding the parameters of non-thorny and shady vegetation, all public spaces do not contain vegetation such as shady trees due to limited land. However, even though there is no shady vegetation, all public spaces except on river banks are shaded in the form of galvalume or nets, so they still feel shady and comfortable. Regarding adequate lighting, all public spaces have bright lighting in the morning due to sunlight and there are lights at night. Based on the aspect of environmental disturbance, all public spaces do not have a disturbing odor, except in the areas along the river because there is still an unpleasant odor from the garbage dumped into the Brantas River.
3. The safety aspect means that the location of the public space is not dangerous from disturbances by anyone who threatens it and there are no barriers that limit the view of parents to the play-space (Lynch, 1960). All playing spaces for children are safe public spaces. In this case, public spaces such as playing spaces in Kampung Warna-Warni are safe from traffic congestion, parents can supervise their children when they are playing, and are safe from social hazards or criminality. However, there is one public space, which is along the river, and river banks have the characteristics of a place that is less safe from flood disasters, especially during the rainy season. Flood disasters can pose a danger to children when playing, which can be dragged down by the strong currents of the Brantas River.

Based on the theory from Kevin Lynch (1960), facilities based on children's needs are included in the comfort aspect of the playing spaces. Aspects of the availability of facilities include the availability of infrastructure for persons with disabilities, adequate pedestrian paths, available toilets, and handwashing facilities, available trash cans, available first aid facilities, and available places to read. However, the criteria for the availability of these facilities are formal, which does not rule out the possibility that the playroom in Kampung Warna-Warni Jodipan does

not apply these criteria. Based on the interviews with the children, they said that they did not need these formal facilities.

CONCLUSION

The pattern of utilization of public space in Kampung Warna-Warni Jodipan as a place for children to play can be summarized as follows:

1. Children take advantage of non-formal neighborhood public space as a place to play in Kampung Warna-Warni Jodipan, such as village alleys, road nodes, fields, and riverbanks.
2. Activities carried out by children in public spaces when playing are active games, which consist of sports games such as soccer, and free games such as chasing, throwing sandals, hide and seek, and play cooking.
3. On weekdays (Monday-Friday), from morning to noon, children are active and play at school, so public spaces are not used for playing. In the afternoon on weekdays, children played in public spaces.
4. On holidays (Saturday-Sunday), in the morning the children spent time helping their parents' household chores, so the children start playing in public spaces from noon to evening.

The identification of public spaces in Kampung Warna-Warni as child-friendly spaces were identified by accessibility, comfort, safety, and facilities. Public spaces in Kampung Warna-Warni were accessible, walkable, and can be reached easily without traffic, within easy reach from homes and public facilities such as schools and mosques. However, the aspect of easy accessibility for people with disabilities has not yet been provided. In addition, the comforts aspect of the playing spaces was satisfied. Without lush vegetation due to limited land, sufficiently bright lighting, and free space, children can enjoy playing in public spaces. Furthermore, the public spaces were safe places to play for children. Children can easily be supervised by their parents, safe from criminality, and safe from the dangers of traffic. However, there was parents' concern when the children played in the river or riverbank. Last, playing space facilities are not really needed for children although some parents want additional playing facilities. Referring to the perspective of children and parents about child-friendly spaces, the evaluation of playing spaces is as follows.

1. Maintaining non-formal forms of public spaces in Jodipan Colorful Village, Malang City (no need for special supervisors and no need for complete play facilities)
2. Maintaining canopies and nets as shade in public spaces so that children are comfortable when playing.
3. Adding infrastructure elements for people with disabilities such as guiding blocks in the Kampung Warna-Warni alley.
4. Adding facilities for first aid safety
Adding vegetation at several points along the Brantas Riverbanks.

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