

Identification of Playgrounds in Medan City Based on RBRA Standard

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Abstract. Playing is a right for children to hone and practice physical skills, creativity, personality, and to develop all aspects within themselves. The provision of play spaces is the responsibility of parents, the community, and the government. The provision of child-friendly play spaces (RBRA) based on the regulations issued by KemenPPPA (Ministry of Women's Empowerment and Child Protection) is conducted indoors and outdoors, or in urban green open spaces (GOS). The quality of playgrounds in Medan City generally lacks playing facilities, is in damaged condition, does not meet standards, and is not child-friendly. This research aims to identify existing playgrounds in Medan City and make comparisons against the standards developed by KemenPPPA. Data collection is carried out through field survey approaches, literature studies, and analyzed descriptively and qualitatively. The findings obtained indicate that playgrounds in Medan City have not yet met RBRA standard.

Keywords: RBRA, Playgrounds, Child-Friendly, Medan

1 Introduction

Green Open Spaces (GOS) must be owned by every region in Indonesia, both urban and rural areas. Based on Law Number 26 of 2007 concerning Spatial Planning, it has been stipulated that the area of GOS in urban areas must be at least 30% of its total area, of which 20% is public GOS and 10% is private GOS[1]. GOS of urban can take the form of city parks, neighborhood parks, recreational parks, public cemeteries, sports fields, and median safety lanes. City parks will be used by all city residents, including the elderly, disabled, and children. According to data released by the Ministry of Women's Empowerment and Child Protection (KemenPPPA) in 2022, the number of children in Indonesia (aged 0-17 years) is estimated at 29.15% or 79.486.424 people [2]. The number of children in Medan City, based on the 2023 census results, is about 11% of the total population [3]. As the next generation, who will be in their productive age in 2045, special attention is needed for Indonesian children. The Indonesian government has ratified the Convention on the Rights of the Child (CRC) through Presidential Decree Number 36 of 1990 concerning the Ratification of the Convention on the Rights of the Child. Furthermore, to ensure the implementation of this commitment, the government has issued the Child Protection Law with several amendments starting from 2002, and the latest being Law

Number 35 concerning Amendments to Law Number 23 of 2002 concerning Child Protection. The fulfillment of children's rights must be systematically carried out in National Development. For this purpose, a development system called the Child-Friendly City/Regency Policy has been established. Child Friendly City(CFC) is an international agreement that has been developed in Indonesia since 2009. This is a manifestation of Children's Rights, and finally, in 2021, Presidential Regulation Number 25 concerning the Child-Friendly City/Regency Policy was issued. Before the Presidential Regulation, the implementation of CFC was accommodated in the Ministerial Regulation of Women's Empowerment and Child Protection Number 12 of 2022 and several related previous regulations. The criteria for CFC are more detailed according to the clusters of Children's Rights contained in the CRC.

Playing is a child's right. The benefits and functions of playing are to hone and train physical skills, creativity, personality, and develop all aspects within the child. Playing is also a very important activity for child development as it positively impacts cognitive, physical, social, and emotional abilities. Moreover, playing can refresh and develop cognitive skills through creativity, problem-solving, and mastering new concepts. Playing also helps build children's self-confidence, fosters willingness to share, controls physical movements, tests physical endurance, trains hand muscles, and produces new movements. The provision of play spaces is the responsibility of parents, the community, and the government. Specifically, for children's public play areas, the provision is the responsibility of local governments (Regencies and Cities). Therefore, city parks need to meet criteria and requirements to be used by children, so their utilization can be maximized. The provisions regarding the provision of child-friendly play spaces, both indoors and outdoors, have been released by the Ministry of Women's Empowerment and Child Protection (KemenPPPA) through the Guidelines for Child-Friendly Play Spaces. For parks or green open spaces (GOS) in urban areas, these provisions are adjusted according to the GOS regulations by the Minister of Public Works and Housing Regulation Number 05/PRT/2008.

1.1 Play Areas in Medan City

Playing is a right for every child in the world. Globally, Article 31 of the 1989 Convention on the Rights of the Child (CRC) in New York City, USA, emphasizes that "States Parties recognize the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child, and to participate freely in cultural life and the arts." In Indonesia, as a country that has ratified the CRC, this right is enshrined in Law Number 23 of 2002 concerning Child Protection in Article 11, which states that "Every child has the right to rest and utilize leisure time, to associate with peers, to play, to recreate, and to create according to their interests, talents, and level of intelligence for self-development." To realize this right to play, it is further supported by Article 22 of Law Number 35 of 2014 concerning Amendments to Law Number 23 of 2002 concerning Child Protection, which states that the State and Government are obligated and responsible to provide support in the form of facilities and infrastructure for the implementation of child protection [2].

Play areas in Medan City, especially those in outdoor spaces, are scattered across several districts, including Ahmad Yani Park, Beringin Park, Gajah Mada Park, Sri Deli Park, Baldes Park, Teladan Park, Krakatau Field, Avros Education Park, Cadika Pramuka Park, and The Lehu

Garden. These parks are managed both privately and by the city government. These parks have been revitalized and utilized by city residents as educational and family recreation facilities. However, these parks have several shortcomings, including damaged play facilities, non-compliance with standards, and being less child-friendly.

1.2 Standards for Child-Friendly Play Spaces (RBRA)

Children's right to utilize their leisure time and engage in cultural activities significantly impacts their lives. Negative consequences can occur in children's lives, as well as the comfort and safety of the social environment if these rights are not facilitated through appropriate activities and locations. As a result, issues such as motorcycle gangs and muggings have emerged, especially in large cities. Through design and construction tailored to the needs of young people, Child-Friendly Play Spaces (RBRA) can serve as the best alternative for utilizing their leisure time through play or recreation [2].

The standards for RBRA are designed to create play spaces that meet the standards and regulations according to the prevailing laws, whether for indoor or outdoor play areas, in residential, commercial, industrial areas, green open spaces, non-green open spaces, blue open spaces, or other environments. The principles of child-friendly play spaces include:

1. Free of Charge,
2. Non-Discriminatory,
3. Best Interests of the Child,
4. Child Participation,
5. Safe and Secure,
6. Comfortable,
7. Creative and Innovative,
8. Healthy, and
9. Insurance (Discourse).

The implementation of RBRA accommodates children's play activities according to their age groups, ranging from 0 to 18 years old as follows:

1. Under 3 years old;
2. Ages 3 to 5 years old;
3. Ages 5 to 8 years old;
4. Ages 8 to 12 years old; and
5. Ages 12 to 18 years old.

The development of RBRA aims to accommodate play activities in a broader sense. Beyond activities for fun, relaxation, recreation, and creativity according to interests, talents, and intelligence levels for self-development, it also includes individual and group sports activities such as soccer, volleyball, basketball, futsal, skateboarding, rollerblading, badminton, wall climbing, cycling, and jogging. The requirements for RBRA that must be met by a children's play space to be categorized as child-friendly include: location, utilization, ease of access, materials, vegetation, ventilation, play equipment/furniture, safety, security, health and cleanliness, comfort and management requirements.

2 Method

This research is qualitative in nature. Qualitative research is an approach to building knowledge statements derived from individual experiences and social values, aimed at developing specific theories or patterns of knowledge [4]. This study falls under the category of exploratory research. The purpose of exploratory research is to broadly and deeply uncover the causes and factors that influence the occurrence of a phenomenon [5]. In this study, an exploratory qualitative approach is used to obtain data in the form of information regarding pedestrian pathways and respondents feedback on existing pedestrian pathways. From this approach, user-oriented design criteria will be obtained, which can be used as a subsequent approach to pedestrian design.

This study employs both primary and secondary data collection methods. Primary data refers to data that originates from the original or first source [6]. Secondary data refers to information collected from existing sources [7]. Primary data collection uses field survey methods and measurements based on criteria from the standards developed by the Ministry of Women's Empowerment and Child Protection (KPPPA). Secondary data is obtained from literature studies concerning technical and non-technical requirements related to pedestrian design.

3 Results and Discussion

3.1 Identification of Physical and Non-Physical Elements of Playgrounds

To describe the condition of playgrounds in Medan City, the selection of research locations includes several simple spots located in Medan Polonia District (Beringin Park), Medan Baru District (Gajah Mada Park), and Medan Helvetia District (Baldes Park). The choice of these three parks as observation points in Medan City is influenced by funding and the duration of the required research. Additionally, the selection of these parks is based on several important variables, particularly related to the distribution of parks representing the distribution of community activities in Medan City (especially for children). Geographically, the presence of these three parks provides information related to the demographics and social activities of the environment, including densely populated, moderately populated, and sparsely populated areas.

Regarding the findings of physical and non-physical elements in the three playgrounds (Beringin Park, Gajah Mada Park, and Baldes Park), they are used to determine planning and development, maintenance and management, user experience, safety and security, and programs and activities. Some of the physical elements identified include: 1) Play equipment (swings, slides, ladders and bridges, and motor skill equipment), 2) Supporting facilities (seating, parking areas, and cleanliness), 3) Layout (zoning of play areas and ground surfaces), and 4) Safety facilities (fences or barriers and signs or information boards). Additionally, the findings of non-physical elements include: 1) User experience (user satisfaction and accessibility), 2) Cleanliness and maintenance (maintenance frequency and general cleanliness), 3) Social and psychological aspects (social interaction and sense of safety), and 4) Programs and activities (scheduled activities and additional facilities). Identifying these elements will provide a comprehensive overview of the playground conditions, both physical and non-physical.

3.2 Condition of Playground Areas in Terms of Demographics and Geography

To describe the condition of the three parks, the research locations are situated in several areas: Medan Polonia District (Beringin Park), Medan Baru District (Gajah Mada Park), and Medan Helvetia District (Baldes Park). The selection of these parks is based on their position and population density distribution (see **Table 1**). This selection highlights significant differences in the distribution of park users. Geographically, the population in the outskirts of Medan reaching 168,292 people in 2023 (Medan Helvetia District) has a very high density, This is followed by Medan Polonia District with 60,679 people, and Medan Baru District with 36,191 people.

Table 1. The population of Medan City in 2023.

Region	The Population of Medan City by District and Gender (People)								
	Male			Female			Male+Female		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
Medan Polonia	30123	30484	30144	30266	30572	30535	60389	61056	60679
Medan Baru	17483	17553	17255	19062	19128	18936	36545	36681	36191
Medan Helvetia	82284	83301	82944	84048	84986	85348	166332	168287	168292

Geographically, the site condition of the parks and the population density provide a better understanding of the suitability of the parks for children according to RBRA standards. Beringin Park (Medan Polonia District) has a site area of about 12.219 m² (1,2 hectares). With a population density of approximately 60,679 people (BPS data, 2023). Furthermore, the geographic condition is relatively flat and, demographically, it is denser compared to Medan Baru District but less dense compared to Medan Helvetia District. This area is a developing region with various urban facilities such as shopping centers (Sun Plaza, Cambridge, etc.), office centers (government and business centers, etc.), and elite housing. Regarding the playground condition, Beringin Park provides adequate facilities for children's activities with fairly good access (accessible via Sudirman Street and Teuku Chik Ditiro Street). However, the population density might affect the use of this park, especially at certain times. Observations indicate that visitors come from both the surrounding area and outside Medan Polonia District. This is due to the facilities condition and the strategic location in the city center of Medan, attracting many people for recreational activities or school visits (especially children).

The presence of Gajah Mada Park (Medan Baru District) with an area of about 12.201 m² (1,2 hectares) has a population density of approximately 36,191 people. Located in the center of Medan City, similar to Beringin Park, it is about 2.1 km or a 6-minute drive away by car. The geographical location is in a relatively flat area. Compared to Medan Polonia District and Medan Helvetia District, the demographic condition of Medan Baru District is relatively low. Regarding the playground condition, Gajah Mada Park provides adequate facilities for children's activities with fairly good access. The average presence of users comes from the surrounding area or the outskirts of Medan Baru District, frequently engaging in sports, recreation, and relaxing activities, either alone or with family.



Fig. 1. Distribution Map of the Parks Being Studied in Medan City.

Based on data and survey results (see **Fig. 1**), the findings related to Baldes Park (Medan Helvetia District) show that the site area is approximately 10.323 m² (1 hectares). As the most densely populated area compared to Medan Polonia District and Medan Baru District, Medan Helvetia District has a population density of about 168,292 people. The land area is relatively flat and located on the outskirts of Medan City, making this area a densely populated residential zone. Observations indicate that Baldes Park faces challenges related to the park's allocation amidst high population density and maintenance of facilities. The park's usage, when connected to the demographic condition, can be very high, which will likely impact the comfort and quality of the playground facilities.

Table 2. Student Data of Medan City – Dapodikdasmen.

Region	Total	Male	Female
Medan Helvetia	19,909	10,608	9,301
Medan Polonia	6,021	3,013	3,008
Medan Baru	5,072	2,440	2,632
Total	276,495	141,165	135,330

Based on data of children (aged 3-18 years) attending school in Medan City, assuming the three studied areas (Medan Polonia District, Medan Baru District, and Medan Helvetia District) (see **Table 2**), it is known that Medan Helvetia District has the highest number of students, reaching 19,909 students. This is followed by Medan Polonia District, with 6,021 students, ranking in the middle. Lastly, Medan Baru District has the lowest number of students, with 5,072 students. When considering the area of each park in relation to the presence of children aged 3-18 years, it is found that the condition of Beringin Park (Medan Polonia District) and Gajah Mada Park

(Medan Baru District) is sufficient. However, Baldes Park (Medan Helvetia District) faces challenges because its area, which is almost the same as the other two parks (around 1 hectare), does not accommodate the activities of the community (especially children) that reach 19,909 people, plus the activities of adults and the elderly. This condition will certainly make the children's play area appear less conducive.

3.3 Standards for Child-Friendly Play Spaces (RBRA) Towards a Child-Friendly City (CFC)

To better understand the ideal conditions for child-friendly play spaces, it is important to refer to both international and national regulations. The provision of child-friendly play spaces (RBRA) according to the guidelines issued by the Ministry of Women Empowerment and Child Protection (KemenPPPA) includes both indoor and outdoor areas, or urban green open spaces (GOS). The development of RBRA aims to accommodate a broader range of play activities, including not only recreational and relaxing activities but also individual and group sports activities that align with children's interests, talents, and levels of intelligence for personal development. The standards that must be met for a play space to be categorized as child-friendly should include the requirements listed in RBRA (see **Table 3**).

Table 3. The RBRA requirement.

RBRA requirement list	Parks		
	Beringin Park	Gajah Mada Park	Baldes Park
Location	Good	Good	Adequate
Utilization	Good	Good	Good
Ease of Access	Good	Good	Poor
Materials	Adequate	Adequate	Poor
Vegetation	Good	Adequate	Poor
Ventilation	Good	Adequate	Adequate
Play Equipment/Furniture	Adequate	Adequate	Poor
Safety	Adequate	Adequate	Poor
Security	Adequate	Adequate	Poor
Health and Cleanliness	Good	Adequate	Poor
Comfort and Ventilation	Good	Adequate	Poor
Management Requirement	Adequate	Adequate	Poor

Based on the observations and the RBRA requirement list, it was found that Beringin Park (Medan Polonia District) is in better condition compared to Gajah Mada Park and Baldes Park. Gajah Mada Park ranks in the middle, while Baldes Park ranks lower. In general, this situation indicates that the condition of these three parks does not yet meet the RBRA standards, which are designed to enhance children's intellectual, social, cultural, language, communication, motor, and physical skills.

The failure to meet the RBRA standards indicates that the condition of these children's playgrounds is still far from achieving the status of a Child-Friendly City (CFC). Some concerns include that the existence of these parks does not yet guarantee several children's rights as outlined in the Convention on the Rights of the Child, particularly in terms of self-development (education, observation, and creativity). This is due to the presence of damaged playground facilities, those that do not meet standards, and are not child-friendly.

4 Conclusion

Based on the results and analysis of this study, these three parks are not fully capable of supporting children's development in terms of intellectual, social-cultural, language and communication, as well as motor and physical skills. This is evidenced by the damage, non-compliance with standards, and lack of child-friendliness of the existing facilities. These issues are major obstacles in creating an environment that supports children's rights as outlined in the Convention on the Rights of the Child. Therefore, improvements and enhancements to the facilities in these parks are urgently needed to support Medan's vision of becoming a Child-Friendly City.

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