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Developing an Integrated Network of Playspaces and Community Resources for Promoting Children's Right to Play

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**SUMMARY** 

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Playing is an activity that is essential for children to have happiness, a better quality of life, and holistic development. Article 31 of the United Nations Convention on the Rights of the Child states that every child should be guaranteed the equal right to play. However, Korean children have a low level of life satisfaction and are in a serious situation where playing and leisure are lacking. Unfortunately, Korean children's level of life satisfaction is the lowest among OECD countries, and the right to play is not guaranteed due to excessive studying.

There are very complex causes for the lack of playing, which makes the problem difficult to solve through individual space units. The reason why children in Korea are unable to play is because of the lack of time and too much time spent using electronic devices (computers, smartphones, TVs, etc.), as they are easily accessible during and between learning periods segmentalized by academic schedules. Insufficient space is also the main cause of the lack of playing. As more cars occupied the roads, the frequency of children's external activities decreased, which resulted in playing only happening within the limits of playgrounds.

To resolve the complex factors of play deficiency, an approach to dealing with the neighborhood environment in an integrated manner is necessary. Changing the concept of play space from the existing playgrounds and facilities to a network of playing resources, in which various playing resources are connected through walking—friendly streets is needed. Specifically, neighborhood play requires safety and social interchanges as well as physical space. Therefore, it is important to have a strategy for creating a play environment by integrating the resources of the local communities.

The purpose of this study is to evaluate the neighborhood environment from the perspective of the playspace network and to suggest a plan to improve play opportunity deficit areas. For this purpose, the concept and requirements of the playspace network are defined through systematic review, the play environment and usage conditions of regional examples are analyzed, the characteristics of the play opportunity deficit area are clarified, and an effective playspace network construction strategy is derived.

Chapter 2 discusses the examined play value and invigorating factors of playing in Korean and foreign literature and the derived concept of playspace network as neighborhood environments that encourages children to play.

The factors that affect playing should be examined within the neighborhood area, as the site where playing takes place expands from inside the house to outdoor areas within the neighborhood as children grow. Particularly, free and active outdoor playing with excellent play value is greatly influenced by the neighborhood environment. Play-friendly factors in terms of the neighborhood environment are divided into playgrounds (facilities), expanded play areas, and safe environments and communities. An approach is needed to examine each element in an integrated manner. In this study, the factors that invigorate playing are largely divided into time, space, and people. The target site consisting of playspaces and play facilities is defined as play resources. The playspace network is defined as a system of spaces connecting the physical play environments (play resources) emplaced and operated in the neighborhood to suit the needs of the playing subject. The playspace network consists of spaces for activities where playing takes place, a connection of spaces necessary for access to play resources, and spaces that can support the invigoration and continuation of playing. Furthermore, the playspace network has the function of actualizing the values of playing that are difficult to achieve in the existing individual units of play resources through the areal linkage between spaces. Moreover, the playspace network can be utilized by linking various resources as a system that has diversity, accessibility, connection, and the possibility of expanding the area. The aforementioned four attributes are features that can be provided by the local play environment as an areal domain rather than limited units, and they are actualized within the relationship among resources connected to each other.

In addition, the playspace network has the feature of serving communities, which guarantees all children living in the neighborhood opportunities to play. In other words, the playspace network is an area that reflects Bronfenbrenner's ecological model of children's play in that it is the connection of physical spaces and the link of non—physical resources and various activities stimulated by these spaces.

Chapter 3 covers the cases of policies, systems, and projects related to children's play. Government policies related to children's play aim to create spaces for playing and leisure in addition to supporting children's rights to play. However, unlike the direction of these policies, Korean laws and legal system concerning playspaces are very limited. Laws and regulations on playspaces are enforced by various ministries with the main focus being the installation sites (parks, apartment complexes, educational facilities, and childcare facilities). Only minimal requirements concerning the installation of playgrounds are stipulated, while the qualitative requirements for playgrounds are lacking. The Act on the Safety Control of Children's Play Facilities focuses on securing safety at the stage of installation and management of play facilities, but it does not discuss play environments in neighborhood areas.

Meanwhile, local governments' projects under the policies related to the play environment have prioritized the promotion of playing by securing various play resources. Most of the projects aimed to create playspaces, and the Play Innovation Pioneer Project implemented by the Ministry of Health and Welfare is a leading example of securing playspaces and time suitable for the conditions of each city. The limitations of public policies related to the play environment found in the analysis of the system and cases of the projects are as follows.

First, there is a perception that play is a basic right for all children, but there is a lack of means to actualize it. A clear goal to guarantee the right to play is absent, and policy projects for expanding play opportunities are also not developing further, being stuck in their early stages.

Second, laws and regulations related to playspaces are divided with the installation site being central. Only matters for the creation and management of playspaces are stipulated at individual facility units. The focus is on the supplier's point of view, and there is a lack of an integrated perspective of looking at the play environment from the child's angle.

Third, play—related public projects of local governments are limited to individual project units, and there is a fundamental difficulty in bridging the gap between play opportunities for children in the communities.

To overcome the aforementioned limitations, it is necessary to form a social consensus on the importance of children's play, present the concept and images of a desirable play environment, and propose specific strategies to expand play opportunities at the community level.

In Chapter 4, the access distance of play resources by type is analyzed for Suwon, and accessibility deficiency areas were derived by dividing them into proximity and mobility concerning children's playgrounds.

As a result of the analysis, the location of play resources in Suwon varies greatly by region, but the sufficiency degree of accessibility to private play resources varies greatly by facility compared to public play resources. In Paldal-gu, where low-rise residential areas are concentrated, there are many residential areas where the distance to the playground is outside the range of appropriate distance for usage. Three private play resources, including multi-family play facilities, kids' cafes, and academies for arts and sports, tend to be concentrated around apartment complexes, resulting in a gap in access to play resources. It was verified that the apartment areas have excellent access to most play resources compared to other areas, and the difference is statistically significant. Areas lacking access to play resources were analyzed by dividing them into proximity and mobility regarding playgrounds and apartments. In terms of proximity, most of the entire area of Suwon, except for some areas of Paldal-gu, met the criteria. On the other hand, in terms of mobility, there are considerable numbers of areas that do not meet the requirements of walking safety and convenience. Furthermore, 33% of the total elementary school student population lives in areas with insufficient mobility. The aforementioned results show that the play environment in Suwon meets the level of quantitative supply in terms of the distance to using core playspaces, but it also reveals limited mobility.

A focus group was formed involving 38 parents of elementary school students ranging

from first to fourth grade in Suwon. The focus group's residences are divided into large—scale apartment complexes (neighborhoods A and B) created as hybrid parks without motorways on the ground, residential areas (neighborhood C) mixed with medium—sized apartments and multiplex houses, and old low—rise residential areas (neighborhood D). The parents recorded their children's play activities in journals for seven days (5 weekdays and a weekend) and participated in interviews under the theme of awareness of play conditions and neighborhood play environments. As a result of the analysis, the playtime of neighborhood D was the shortest with the proportion of active play being small, and parents' perceptions of the play environment were also negative.

To find out in detail the influence of neighbors on children's play activities in the focus group, play activities were analyzed by focusing on the aspects of time, space, and people.

In terms of time, children's outdoor play on weekdays tends to be more active when time spent on structured activities (in school), transportation, and electronic devices are less. The static playtime at home, including screen time of 30 minutes to an hour can be converted to outdoor playtime, suggesting the need for neighborhood play resources that are suitable for children's daily schedules. The neighborhood's impact on screen time is very clear. Children's screen time is either extremely low or high in neighborhood D, where play resources are not diverse and the walking environment is poor. The difference depends on what kind of role parents play after school. In neighborhoods A, B, and C, where there are many accessible playgrounds, many children play outside, while in neighborhood D, even if they have a lot of free time, there is no outdoor play except for short playtime in the after classes on the school playgrounds. Neighborhood D's children spend time on electronic devices after school or look for playable areas with their mothers, which gives them fewer opportunities to play with their friends.

The difference in neighborhood space also has a great influence on playing. The number of play resources accessible for each of the four neighborhoods is similar, but children who play a lot utilize more play resources than children who play less. In other words, it means that the play environment that determines the playtime cannot be simply explained by the amount (number) of playgrounds, and it is influenced by the characteristics of individual sites.

In the case of neighborhoods A and B, where large-scale apartment complexes

themselves are play areas, play activities in playgrounds and open spaces in apartment complexes are the most active. Public playgrounds are actively used in neighborhood C, and the use of large—scale open spaces or apartment playgrounds is secondary. This is due to the excellent size and characteristics of public playgrounds compared to the quality of playgrounds around medium and small apartments. Meanwhile, in neighborhood D, play activities are concentrated in the school playground and sports field; playing in the parking lot near the house was also observed.

The aspect of people was examined by focusing on friends who played together. The presence of friends greatly affects playtime, and children who have a lot of playtime on weekdays play with friends more than once a day on average. Also, children who socialize with their friends on weekends spend more time outside than children who only play with their family members. In neighborhoods A, B, and C, people usually play with their friends at nearby public or apartment playgrounds, while in neighborhood D, play with friends is concentrated on school playgrounds and sports fields. This shows the importance of school playgrounds for low—rise residents with insufficient play resources and low child population density.

From the perspective of the playspace network, apartment complexes and low—rise residential areas showed a very big difference. Neighborhoods A and B, which have a pedestrian zone and various playgrounds in the apartment complex, have a clear play area within a safe independent movement range, while Neighborhood D does not have a play area due to poor walkability and the lack of play resources. Neighborhood C, a mixture of various residential types, offers easy access to play resources around schools, academies, and homes according to children's needs, showing the function of a public playspace network outside of the apartment complex.

From the perspective of the playspace network, large—scale apartment complexes have a safe playspace network in a limited area while offering excellent diversity, accessibility, and connection of resources. As a result, the playspace network of large apartment complexes provides equal play opportunities for residential children. On the other hand, for low—rise or mixed—rise residential areas, the public playground spots are limited, and it is easy to see a gap in access to play resources within the neighborhood.

In this study, low—rise residential areas with low child occupancy density and few active play resources are considered play opportunity deficit areas, and tasks to improve the

neighborhood environment from the perspective of the playspace networks are presented in terms of time, space, and people.

First, as a spatial strategy, forming a play center through space aggregation, school playground improvements, and the creation of play resources through utilizing collected donations for urban maintenance projects were proposed. In terms of time, a strategy to improve the physical environment along with improving parental awareness was suggested. The lack of playing due to the segmentation of leisure time is useful in creating daily life—friendly play resources. Children who are preoccupied with screen time at home need playgrounds suitable for their free time, mostly during the evenings. In order to solve the problem of lacking playmates in low—rise residential areas at the human level, it is necessary to create play centers and formulate strategies to invigorate the sharing of playspaces.

In order to change the attitude of parents to allow their children to go out and play, the neighborhood environment must first be safe. Finally, it is necessary to reduce the burden of parents on supporting play activities by expanding public care services to include play.

Based on the findings of the focus group study, Chapter 5 presents a strategy to create a playspace network in areas lacking play opportunities. The characteristics of low—rise residential areas are that it is difficult for children to gather due to the few number of children, lack of playspaces, and poor walkability. Therefore, the improvement strategy is divided into creating a foundational play area and enhancing access to play resources.

First, the method of creating a foundational playspace is to create a space or complex facilities using a school area. For this project, it is important for local governments to play a key role in creating and operating school areas as community play resources, and to manage school playspaces integrally with other public leisure facilities. Second, a project to create a playspace by remodeling public facilities is proposed. Since public facilities such as community centers are often aging in low—rise residential areas, indoor and outdoor playgrounds can be created by utilizing outdoor, low—rise indoor, and rooftop spaces if necessary. While the school play area is mainly used by elementary school students who can walk relatively freely in the neighborhood, it is appropriate for the play area of the community center to be occupied by mostly infants and their guardians. In addition, it is possible to create a network between neighborhood play

resources by expanding small playspaces near homes or schools. Improving the method of usage is also essential for strengthening the network. This is because even though a playspace has already been created, it is difficult to encourage usage only by supplying facilities in residential areas with low usage rates. Therefore, through the participation of residents, a project to improve the paths for walking in the neighborhood and link them with playspaces, an agreement to remodel and use apartment complex playgrounds, and a plan to link and utilize both online and offline play resources are proposed.

This study defines the concept and nature of the playspace network that guarantees children's right to play, examines the current status of play resources in Suwon, and analyzes the play situation of the focus group in depth. In particular, the impact of the neighborhood play environment on playing was examined by focusing on time, space, and people (friends), and a plan was drawn to build a playspace network by integrating various resources of the community in residential areas that lacked play resources. It is expected that the results of the study will be used as a reference for local governments that want to establish plans for children's play environments or promote improvement projects.

Although this study includes the advantage of investigating children's daily life and play status through play journals, it is difficult to statistically verify the effect of neighborhood environmental factors on play behavior because of the small number of people in each focus group allocated to the neighborhoods. In addition, there is a limitation in that the research was conducted at a time when face—to—face contact was restricted due to COVID—19, and direct interviews with children in each focus group were not possible. The insufficiency of directly dealing with socioeconomic factors that determine children's daily life and leisure forms remains as a limitation.

For the playspace network presented in this study to be expanded in actual urban spaces, the process of developing an effective business model and persuading community members is essential. To this end, follow—up studies that specifically present business models and corresponding processes are needed. Furthermore, follow—up studies are needed to improve related regulations for local governments to create surveys and plan guidelines to diagnose the play environments and to secure administrative and financial support necessary for the establishment and maintenance of the playspace networks.