

A STUDY ON THE UTILIZATION OF KOREAN SCHOOL FACILITIES AS PUBLIC SPACES FOR LOCAL COMMUNITIES

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Abstract

In South Korea, the ongoing low birth rate has led to a decrease in the school-age population and the underutilization of school facilities and land, emerging as a social issue. In response to this phenomenon, the Ministry of Education has implemented improvements in the education system, including the "Flexible operation of education in regions and schools." This aims to repurpose school facilities beyond their traditional role as educational spaces, transforming them into multipurpose spaces for community use. School facilities are increasingly regarded as resources that promote regional revitalization from both geographical and emotional perspectives. Consequently, the scope of utilizing these facilities as public spaces for local communities is expanding, enabling the creation of customized public spaces that align with the characteristics and conditions of each community. Therefore, this study aims to analyze cases of public spaces utilizing Korean school facilities and propose directions for their improvement and development as accessible public spaces that can be used not only by students but also by residents. Through a literature review, a checklist based on public space components of school facility utilization was derived based on types of school facility utilization and related guidelines. Based on this, field research was conducted focusing on cultural, educational, and community-centered spaces utilizing school facilities in Korea, primarily those developed after the 2020s. As a result, it was commonly observed that public spaces utilizing school facilities in Korea provide community activities focused on lifelong education programs for residents, in addition to being linked to school education. Through this, the physical environments of currently operating school facilities and closed school facilities are utilized to assign new functions and values as public spaces through new construction or remodeling. Additionally, these spaces often reinforce local identity by hosting exhibitions or events that reflect regional characteristics. In addition, school facilities are generally located in densely residential areas, making space utilization easier. In some cases, institutions operated by local governments also moved into the space, showing that various public infrastructure was provided to local residents. As the potential for utilizing school facilities as multifunctional public spaces based on connections with the local community becomes more apparent, there is a need to consider the establishment of more detailed guidelines. For this purpose, future research could yield more meaningful results by conducting surveys and interviews to assess the satisfaction of residents.

Keywords: Utilization of School Facilities, Local Community.

1 INTRODUCTION

Korea has been experiencing a continuous decline in birth rates, leading to a steady decrease in the school-age population. As a result, the issue of closed school facilities, which was previously confined mainly to rural areas, has now expanded nationwide. This has increased the necessity for the efficient utilization of school facilities. In response, the Korean government and the Ministry of Education are formulating policies and improving educational systems to adapt to the changing society and promote the active use of school facilities. School facilities hold symbolic significance beyond their educational functions, encompassing geographic and emotional aspects. This makes it possible to create tailored spaces that align with the characteristics and needs of local communities. In this context, it is essential to explore physical utilization strategies for school facilities while adopting a human-centered approach that incorporates the values and culture of the community. This aligns with the concept of placemaking, aimed at creating public spaces that reflect the unique identity and needs of the community. Therefore, this study seeks to identify strategies for purposing school facilities into public spaces that foster connections with local communities through case analyses of spaces utilizing school facilities in Korea. By doing so, the study aims to propose improvement and development directions for transforming these spaces into public spaces accessible to not only students but also local residents. The specific scope and methods of the study are as follows: First, a literature review was conducted to examine the concepts of spaces utilizing school facilities and placemaking. Second, based on previous studies, evaluation criteria applicable to spaces utilizing school facilities as public spaces for local communities

were extracted, and a checklist was developed. Third, field investigations were carried out on five cases of spaces utilizing school facilities in Korea, developed after the 2020s, with a focus on 'cultural and experiential education' and 'community activities.' Lastly, the spaces utilizing school facilities were analyzed based on the checklist, and conclusions were drawn.

2 BACKGROUND

2.1 Space utilizing school facility

Spaces utilizing school facilities refer to areas that go beyond using existing school facilities and grounds solely for educational purposes, incorporating multifunctional uses to meet the diverse needs of the local community. Recently, in Korea, the value of 'open school,' which involves opening school facilities to local residents within limits that do not disrupt school education, has been gaining prominence. Additionally, school facilities, as basic living infrastructure located near densely populated residential areas, are being recognized as spaces capable of providing various public services. Such spaces reflect local characteristics and accommodate the diverse needs of residents, serving multifunctional purposes such as 'culture, education, welfare, and sports.'

2.2 Placemaking for public spaces in local communities

2.2.1 Placemaking

Placemaking refers to the creation of meaningful environments that consider the unique values of local communities in both physical and non-physical aspects, based on a people-centered approach. It aims to foster active participation within communities while offering diverse experiences. Spaces utilizing school facilities through placemaking are not merely public spaces providing basic living infrastructure but are designed to reflect the needs of local residents, enabling active community engagement and fostering a sense of connection. Furthermore, they contribute to sustainable community development by preserving the symbolic and historical values inherent in both the local community and school facilities.

2.2.2 Placemaking elements for public spaces in local communities

Previous domestic and international studies on placemaking for public spaces in local communities were analyzed to extract key categories. While the definitions of each term varied depending on the researchers' analytical criteria, a closer examination revealed underlying similarities. Accordingly, this study identified the following elements: Enhancement of Publicness, Forming a Bond, Utilization of Resources, Convenience of Access, and Image Formation. The details are presented in Table 1.

Table 1. Placemaking Elements for Public Spaces in Local Communities

<i>Elements</i>	<i>Contents</i>
Enhancement of Publicness	Elements that accommodate the needs of diverse groups and provide accessible facilities for everyone
Forming a Bond	Elements that create a comfortable atmosphere for community and sustain ongoing interactions
Utilization of Resources	Elements that preserve local resources and introduce new assets to pursue qualitative improvements
Convenience of Access	Elements that harmonize with the surrounding environment by considering access to all traffic
Image Formation	Elements that offer differentiated experiences, and establish a promotional network

3 METHODOLOGY

3.1 Overview of case

This study conducted field investigations on five cases of spaces utilizing school facilities in Korea, developed after the 2020s, with a focus on 'cultural and experiential education' and 'community activities.' The criteria for case selection are shown in Table 2.

Table 2. OVERVIEW OF CASE

<i>Cat.</i>	<i>Case Name</i>	<i>Location</i>	<i>Year</i>	<i>Development Method</i>
A	Busan Mathematics Culture Center	734, Gaya-daero, Busanjin-gu, Busan, Republic of Korea	2023	New Construction
B	Busan Science Center	11, Jungang-daero 260beon-gil, Dong-gu, Busan, Republic of Korea	2021	
C	Incheon Nanjeong Peace Education Institute	28, Gyodongseo-ro 378beon-gil, Gyodong-myeon, Ganghwa-gun, Incheon, Republic of Korea	2022-23	New Construction + Remodeling
D	Yeongdo Nory Maru	259, Wachi-ro, Yeongdo-gu, Busan, Republic of Korea	2020	Remodeling
E	Ulsan Village Education Community Center	832, Seongnam-ro, Sangbuk-myeon, Ulju-gun, Ulsan, Republic of Korea	2020	

3.2 Checklist for analyzing the utilization of school facilities as public spaces in local communities

Based on the analysis of previous studies, a checklist for analyzing the utilization of school facilities as public spaces in local communities, grounded in the placemaking elements, was developed. The details are presented in Table 3.

Table 3. CHECKLIST

<i>Elements</i>		<i>Analysis Items</i>
Enhancement of Publicness	A1	Are the existing school facilities being utilized to accommodate a variety of contents that are suitable for the current space?
	A2	Are spaces or programs being designed through collaboration with institutions relevant to the local community, such as administrative welfare centers and education offices?
	A3	Are convenience facilities provided to cater to a broad range of users, including local residents and external visitors?
	A4	Are design plans that consider safety and convenience in terms of layout, materials, and colors reflected to accommodate users from diverse demographic groups?
Forming a Bond	B1	Are spaces or programs such as resident autonomy room, designed to foster ongoing community activities?
	B2	Are vocational education and employment information being provided, and are local residents employed as operational staff for the space?
	B3	Are exhibition and experiential programs that reflect the local identity established within the space utilizing school facilities?
	B4	Are spaces designed to accommodate a large number of people for continuous communication with external society?
Utilization of Resources	C1	Are the layout type, building structure, and site of the school facility preserved and utilized?
	C2	Are new spatial resources being created to align with the purpose of the space, such as through new construction or expansion?
	C3	Are exhibition spaces that reflect the historical background or storytelling elements of the school facility established?
	C4	Are spatial plans, such as the consideration of natural lighting and ventilation and the composition of ecological spaces, implemented to promote an eco-friendly design in the school facilities?
Convenience of Access	D1	Are plans to facilitate accessibility through various modes of transportation reflected? (e.g., separation of walkway and road, dedicated parking facilities plan)
	D2	Are landmarks or hub areas (e.g., administrative welfare centers, city halls) located nearby to provide access route information?
	D3	Are the existing entry structures of the school facilities being utilized, or are new entrances being created to guide movement into the spaces?
	D4	Are guidance facilities, such as directional signs or information desks, installed to guide movement within the space?

Image Formation	E1	Are various experiences provided by hosting regional festivals and cultural events, either through the space itself or via space rental?
	E2	Are online networks, such as mass media, social media, and website, actively utilized as means of information dissemination and promotion?
	E3	Are distinctive atmospheres created by improving materials, colors, and lighting to break away from the standardized design of school facilities?
	E4	Are space designs being carried out with the incorporation of symbolic elements alongside the formation of safe and comfortable atmosphere?

4 RESULTS

4.1 Analysis of Spaces Utilizing School Facilities as Public Spaces in Local Communities

4.1.1 Enhancement of Publicness

Spaces utilizing school facilities are public spaces accessible to people of various demographics. In most cases, such spaces include areas like ‘health rooms, nursing rooms, and storage facilities,’ along with an information desk located on the lobby floor. In cases where communication and exchange programs are the main focus, community activity spaces, such as ‘resident autonomy rooms,’ are also provided. The details are illustrated in Figure 1.



Figure 1. Enhancement of Publicness

4.1.2 Forming a Bond

School facilities, as basic living infrastructure within local communities and located near densely populated residential areas, were designed to reflect the characteristics of the surrounding area. For example, they provided open spaces for local residents and external visitors, such as ‘community cafes.’ These spaces incorporated structures connected to the external environment by installing folding doors on certain walls, allowing them to be opened or closed depending on the situation. Additionally, exhibition spaces reflecting the ‘historical and cultural elements’ of the local community were created. These details are illustrated in Figure 2.



Figure 2. Forming a Bond

4.1.3 Utilization of Resources

The 'remodeling' and 'new construction' methods were applied while preserving and utilizing the school facilities and sites. In most cases, 'remodeling,' which repurposes the school facility layout for new spatial functions while retaining its original arrangement, was the most common approach. This not only directly or indirectly highlighted the utilization of school facilities but also incorporated elements related to the original school facility into the current space. However, in cases where spaces were developed through 'new construction' on the existing site, they were designed with a specific thematic purpose and did not reflect any direct or indirect expression of the space's connection to the original school facilities. These details are illustrated in Figure 3.



Figure 3. Utilization of Resources

4.1.4 Convenience of Access

Spaces utilizing school facilities displayed varying degrees of application of location types based on the facilities' location: central urban type, suburban type, and rural type. In cases classified as central urban type, accessibility via public transportation was excellent, and social capital was available, making movement and access through various transportation systems convenient while providing location information through social capital. In contrast, cases classified as suburban or rural types lacked plans to improve insufficient transportation conditions and social capital compared to the central urban type. For cases of spaces utilizing school facilities developed through remodeling, a common feature was the ability to access the facilities via the existing school gates and main entrances. Additionally, most cases included the installation of escalators and elevators to facilitate internal movement. These details are illustrated in Figure 4.



Figure 4. Convenience of Access

4.1.5 Image Formation

In all cases, various cultural events and regional festivals were held, allowing participation from both local residents and external visitors. Additionally, online networks, such as official websites and social media platforms, were established and utilized as means for information dissemination and promotion. Furthermore, to break away from the standardized design of traditional school facilities, common features included white-toned interior designs, wooden finishes, the use of natural wood furniture, and high-saturation color schemes. These details are illustrated in Figure 5.



Figure 5. Image Formation

5 CONCLUSIONS

This study analyzed spaces utilizing school facilities as public spaces in local communities from the perspective of placemaking elements. To achieve this, field investigations were conducted on five cases of spaces utilizing school facilities in Korea, developed after the 2020s, with a focus on 'cultural and experiential education' and 'community activities.' The research findings are as follows.

First, spaces utilizing school facilities in Korea demonstrated the strongest elements of 'Enhancement of Publicness' by serving as public spaces for local communities. These spaces provide community activities centered on lifelong education programs for local residents, in connection with school education. Through this approach, both operational school facilities and closed school facilities were repurposed into public spaces with new functions and values, achieved through either new construction or remodeling. However, some cases, while accessible to everyone, limited the use of experiential programs to a restricted number of visitors through reservation systems, thereby imposing constraints on space utilization. In such instances, where limited visitor capacity is necessary to manage overcrowding, it is important to consider providing basic amenities to ensure the space fulfills its functions for 'rest, communication, and exchange.'

Second, spaces utilizing school facilities were primarily developed through 'remodeling' and 'new construction.' Both methods preserve and utilize school facilities as local community resources, which highlights the need to consider elements of 'Forming a Bond' and 'Utilization of Resources.' These approaches should focus on directly or indirectly expressing the spatial preservation value of these facilities. Rather than merely creating exhibition spaces based on the historical elements of existing school facilities, it is essential to provide diverse spatial experiences as public spaces for local communities. This can be achieved by fostering emotional connections, such as memories, experiences, and feelings, with the existing site, addressing the non-physical aspects of placemaking.

Third, spaces such as 'community autonomy rooms, community cafes, and resident club rooms' were created and related events were organized to strengthen the sense of connection among local residents and enhance regional identity. Additionally, institutions operated by local governments were co-located within these spaces, providing various public infrastructure to the community. This demonstrates the potential of spaces utilizing school facilities to serve as multifunctional public spaces in connection with the local community. Therefore, it is necessary to consider establishing more detailed guidelines to maximize their effectiveness and utility.

This study investigated approaches to utilization of Korean school facilities as public spaces in local communities by identifying placemaking elements and conducting case studies. Recently, Korea has experienced a nationwide increase in closed school facilities. By repurposing these facilities, the value of 'open school' is being realized. The significance of this study lies in analyzing spaces utilizing school facilities through placemaking planning elements linked to the local community. Future research could yield more meaningful results by conducting surveys and interviews to examine the satisfaction levels of local residents regarding their use of these spaces.

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