

# 생활밀착형 공공건축물의 이용자 참여 디자인 활성화를 위한 제도개선 방안

A Study on the Improvement of the System for the Participatory Design in the Public Building for Everyday Life

박석환 Park, Seokhwan  
김성준 Kim, Sungjoon  
윤주선 Yoon, Zoosun

( a u r



---

# A Study on the Improvement of the System for the Participatory Design in the Public Building for Everyday Life

SUMMARY

Park, Seokhwan

Kim, Sungjoon

Yoon, Zoosun

---

## Chapter 1 Introduction

This study began with the need to shift policies on public buildings from focusing on supply to focusing on establishment and usage procedures.

In urban planning, urban regeneration, and town-making sectors, the role of governance through cooperation of the administration, residents and experts has been emphasized, thus resulting in systemizing participation plans of various entities. However, user participation has not been activated in processes of establishing public buildings that are smaller than in cities.

When various entities participate in public buildings and public architecture, which are core components of cities, and is built cooperatively and focusing on users, it will be possible to improve both the overall environment of the city and the quality of life of its residents.

According to the 'Living SOC 3 Year Plan' announced by the Office for Government Policy Coordination's Living SOC Task Force in April of 2019, a total of 14.5

trillion KRW will be invested over three years to expand living infrastructure (convenience facilities such as cultural and sports facilities) focusing on people and regions to improve quality of life especially in leisure and health. In this plan, in addition to reforming systems to expand participation of various entities in the region such as social and economic organizations, full process participation models are being considered such as in planning, design and construction, operation, etc. in the pursuance method of the living SOC project. The full process participation model is a model that aims at organizing a regional association comprised of community representatives, managing architect, experts, local governments, and social and economic organizations in the entire process of the project, but it does not yet have a detailed executive plan.

Furthermore, the process of building public buildings requires complex administrative procedures as well as special conditions that require technologies and expertise, and therefore, the participation design tool up until now were mainly made up of ordering institutes and experts. Thus, there are limited participation tools and methods that can be easily utilized by general users.

There are also limitations in application due to the lack of practical standards on the procedure, budget, entities, authorities, etc. of participation design for the relevant systems.

Also, when establishing community public buildings, this study aimed at providing user participation design rules based on practical governance and to draw up plans to improve the systems for implementing participation design in the laws and guidelines related to public buildings.

The target of this study was set as libraries, sports centers and general community center types that account for the largest scope and percentage of community public buildings, which are also closely related to everyday life and that did not include detailed demand surveys in the planning process for case studies to effectively draw up research results.

The main methodology for this study was to conduct literary reviews and theoretical studies, as well as qualitative studies through case studies. In order to enhance effectiveness of the expected outcomes of the study, interviews with relevant persons and consulting meetings with experts will be conducted.

## Part 2 Community Public Building User Participation Design Status and Issues Analysis

In Chapter 2, status analysis related to the awareness on participation design from the perspective of governance and participation design tools was carried out. In addition, the community public building establishment procedure features were analyzed based on the public library construction and operation manual, community sports center construction and operation guideline, life cultural center establishment guide, and the touring community center work manual. Furthermore, status analysis on systems related to user participation designs and relevant execution systems were conducted, and based on this, the following issues were discovered.

Need to make improvements to the custom of excluding non-experts in the building construction process

Even if the target is a public building, the dominant perception on the process of constructing a building is that only experts possessing skills such as in architectural design, construction, etc. are essential, unlike regional 'town-making' projects.

Such perception justifies just a few administrators and experts to get together to make all decisions in the planning, design and construction stages of public buildings.

There are many cases in which nobody is held responsible for the discomforts and lack of logic felt by users in a situation where users must passively receive public building services built and provided by experts.

Need to provide systematic basis for participation design so that residents can participate in the establishment process of public buildings

Currently in the urban planning sector, matters on budget, schedule, procedures, etc. related to participation planning are prescribed by systems. Meanwhile, the systematic basis for planning in the public building construction process is still lacking. Accordingly, there are many cases in which public building construction projects are used as policy tools of local government organization decision-makers, and the projects are pursued while excluding community members, who are the users of the building, from the planning stage. Public

buildings built in such way do not properly identify the regional peculiarities and user needs, and therefore, it results in a vicious cycle where usage rate and public service satisfaction are low. Moreover, the result of wasting budgets for large-scale public building repeats.

Need for wide-use participation design tools that can be commonly applied when building community public buildings

The 'Eunpyeong-gu Gusan-dong Library Town' and 'Touring Community Center Town Vitalization Project' that will be examined in further detail are good cases that show the value and possibilities of user participation designs.

However, these cases can be viewed as exceptional cases based on very assertive wills of residents to participate or through the social contribution of a devoted public architect. In general environments and situations where there is no such assertive will, there is no widely-used tool being provided that can be applied equivalently in the system. Therefore, in the case of community public buildings in the future, efforts to develop and systemize techniques that can be commonly utilized or delivery systems must be made.

Need for guideline for organization and operation of a governance that can effectively reflect user opinions

The Citra Strategic Design Unit pursued strategic design in the problem-solving sector and excavated representative cases of social innovation through design governance.

When establishing activation plans in urban generation projects, it requires a community association made up of various interested parties within the new deal project district to act as a window for collecting opinions and adjusting disputes and conflicts in order to enhance understanding of the project among community members and to establish activation plans.

Furthermore, in the case of the citizen design team, it requires the organization of a working group together with design experts (service designer), policy recipients (students, citizens, etc.), and policy suppliers (public employees in charge of policies) to effectively mirror the opinions of policy recipients.

Governance-type project such as the Seoul City Town Revitalization Station are being implemented in the establishment process of public buildings, but it is limited

to just a few cases in the early stages. Therefore, a guideline on governance composition and operation is needed to construct a governance that can effectively reflect the opinions of users and interested persons, while promoting the utilization of governance in the public building construction process.

Need to diversify participation design tools

Users of public buildings are designated for specific genders or age groups, and therefore, it is necessary to also diversify the participation design tools to encourage participation of various themes in participation design. In addition to traditional offline tools, by utilizing online and mobile platforms, it will be possible to widen the spectrum for listening to opinions.

The administrative procedures act also promotes the active utilization of online national participation platforms where citizens can debate on, vote for, and evaluate policies, or listen to the opinions of citizens and experts to provide participation methods, opportunities for cooperation, and utilization of techniques.

Need to improve data accessibility by opening up public data

Forum Virium Helsinki first opened up public data to configure a smart city where citizens participate on their own to create the Kalasatama Smart City through transparent disclosure of public information. In order to create a system where users look for issues, discuss it through information-sharing and brainstorming on resolution methods, it is necessary to create conditions to access the necessary public data.

### Chapter 3 Participation Design Case Study on Fields Related to Community Public Buildings

The summary of results of domestic and foreign public building case studies and its implications are as follows. The participation types of community members can be categorized into the voluntary cases where residents felt the need for facilities and installed them voluntarily such as the Gusan-dong Library Town and Japan's Gakuten Exchange Center; top-down cases where the public sector did the planning and residents participated in a limited fashion in the design sector such as at the Jeonju Innovation City Center and Chicago Public Library, and the governance case where residents participated as positive entities from the

planning, design and operational stages, but decided on by the public sector such as installing the Seoul City Town Revitalization Center project and the Helsinki Oodi Central Library.

**[Table ] Categorization of Cases according to Resident Participation Types**

Section	Resident Participation Type	Case
<b>Voluntary Case</b>	Residents who felt the need for facilities voluntarily pursued installation and participated actively in all processes	Gusan-dong Library Town Gakuten Exchange Center in Japan
<b>Top-down Case</b>	Planned by the public sector and limited participation by residents in design	Jeonju Innovation City Center Chicago Public Library
<b>Governance Case</b>	Installation of facilities decided upon by the public sector, but residents participate as positive entities	Seoul City Town Revitalization Project Helsinki Oodi Central Library

Source: Researchers

For the voluntary case, community organizations are organized on their own and they gather opinions of the community to suggest installation to the public sector, and it is carried out in a way that residents participate assertively in all procedures, while the public sector provides support. In this case, autonomous organizations that have affection for their region play a central role and since their actions are based on affection, it is positive in the aspect of sustainability of community participation. In the case of the Gusan-dong Library Town, volunteer parents, who played the central role for installing the library town, also had experience on voluntarily making the ‘Daejo-dong Dreaming Children’s Library’ and such experience became the nourishment to successful pursue installation of the library. Even if community organizations are assertive, the most difficult aspect of installing public facilities such as library is procuring land and funding. Assertive provision of information and cooperation from local governments are crucial in the course of this.

Furthermore, criteria on what the appropriate budget is and how much time is needed depending on the installation type such as new construction and remodeling are needed. While it is easy to presume that remodeling would save on costs, as evident in the Gusan-dong Library Town, there are cases when more-than-expected budgets are needed due to structural issues, etc. of the building. Meanwhile, new construction takes a lot of time, so there could be



instances in which it is difficult to complete construction within the administratively given project period.

In cases where residents play the leading role and the administration acts as a supporter, there is high possibility that residents will continue to participate in operations, but facilities such as libraries and sports facilities also require professional operation. Operators are included in facility users and while reflecting the opinions of the residents during the designing process, it is also necessary to have a process to collect the opinions of experts who have real experience in operations.

For the top-down case, it is led by the public sector and residents participate through a limited channel. Community opinions are delivered to the designer through methods such as including in design contest guidelines. When including residents using direct methods such as workshops, residents are invited at the target site and so it is accompanied with educational courses to strengthen resident capacities, and if residents are skeptical about participation or building facilities, they must be continuously persuaded and encouraged, and if it does not receive the support of the community's capacities, it may end up in simply finding meaning in having included the community. Furthermore, from the administrative sector's position, resident participation process that require a lot of time could be viewed as an obstacle for quickly completing the project, especially when there are limitations in project period. In the case of the Jeonju Innovation City Center, residents were involved through the community school after it had practically completed its decision-making procedures on the functions of the spaces. The main contents of the community school were on education on the facilities and arrangement of community spaces, and the layout drawn up through the agreement of residents at the community school was included in the design contest guideline and used as the standard for selecting the winning piece. The Jeonju Innovation City Center community school developed and applied a participation design tool, and it was found that the older the age of participating residents, analog tools were accepted more familiarly. In the case of the Chicago Public Library, the architect was selected first, and design discussions were conducted after organizing a design group. Citizens volunteered to 10 different outside work groups to participate directly in the talks, or they were also able to indirectly participate by expressing their opinions via mail, e-mail or website. There were various disputes

about the design of the Chicago Public Library. Among them, the transparent floor design was opposed strongly by the media and citizens, and was thus withdrawn. Such indirect methods were used for active participation to reflect the opinions of the community. As evident in the case of Chicago, even in the case of indirect methods such as online participation, if many people can participate assertively, it can have an even greater effect than direct participation. Effective participation tools may be different according to the age group, and it is also necessary to diversify participation plans to that people can participate not only offline, but online as well.

For the governance case, installation of facilities is determined by the public sector, but residents become the main entities while carrying out the project and so they participate assertively in it. The governance case has similarities in the participation process as service design, and participating residents also work on deciding what the problem is and what functions the given space has, and how the space should be used. Residents are recruited by the public sector and they are encouraged to participate in the entire process including operations through numerous workshops. Cases of the Seoul City Town Revitalization project showed that when multiple governance type projects are carried out simultaneously, areas where assertive resident participation is low often have one resident participating in multiple projects, and there are others who express concerns and decide not to participate stating that they were unaware that they would have to participate actively. It is a particularly difficult decision for residents to suddenly decide to participate in operations. Governance-type projects are unfamiliar types, thus often resulting in low levels of understanding from participating public employees as well. Even in the same town revitalization project, there are different modes depending on the region, and therefore, the understanding level and assertiveness of public employees and participating residents, individual capacities, workshop courses and mood also have a big impact on the outcomes. One of the biggest tasks is to mediate conflicts and adjust opinions and roles because a variety of entities such as the public sector, residents, experts and operators participate in the establishment process. Therefore, a supervising planner is needed so that he or she may be in charge of this process and to bring about the outcomes to a certain level of completion.

Also, a few residents lead the decision-making in the workshop method, and

therefore, it is necessary to diversify participation methods for collecting the opinions of the many. In the case of the Helsinki Oodi Central Library, online websites and interactive screens, etc. were used to collect the opinions of the majority public. The demands for the library collected online were summarized and included in the standards for the international contest for architectural design, and an interactive screen was installed in a public location for the favorite candidate. Moreover, service map design access was comprised of several sub-factors such as production of an information sign, interior design, etc. for users as this was a large project, and it is thus said to be a textbook case for service design.

**[Table ] Resident participation stages per case (including both direct and indirect methods)**

Stage  Case	Planning				Planning		Operatio n
	Proposal for establishment	Construct community association	Participate in association	Proposal on necessary space and programs	Design participation (opinion proposal )	Participate in submitted work review	Consigned operation of community association
Gusan Library Town	O	O	O	O	O	O	O
Gakuten Exchange Center	O	O	O	O	O	O	O
Jeonju Innovation City Center					O		
Chicago Public Library			O	O	O	O	
Seoul Revitalization Project			O	O	O		O
Helsinki Central Library Oodi			O	O	O	O	

Source: Researchers

In order for users to actively express their opinions and participate in such

resident participation process to draw up the plans together, data such as project planning and project design, etc. must first be readily accessible. It will also be important to establish conditions so that resident participation can be activated through comprehensive opening of public data such as big data for public budgets, project plans, and project proposals.

#### Chapter 4 Wide-use Participation Design Rules and Systemization Plans for Community Public Buildings

##### Wide-use participation design rules of community public buildings

Among participation design techniques used in preceding studies, urban design, town-making, etc., the most effective plan that is best to bring about outcomes is the combined online + offline technique. Online platforms can be used to announce and promote projects and receive applications for participation, and by exchanging opinions face-to-face and holding discussions offline to collect opinions, it is possible to improve efficiency of participation.

In order to apply participation design in library, sports facility and comprehensive community centers, offline and online platforms should be combined, while also using mobile platforms, etc. to diversify participation tools and to efficiently adjust the number of times of participation. In addition, as it is a public building built based on the neighborhood, it is necessary to clarify the subjects of participation to invite both passive and assertive participation, as well as mixed participation to concretize the residents subject to participation.

As mentioned in the issues and implications through case studies and interviews with project personnel, etc., there are restrictions in having all general users such as residents to participate in the entire public building construction project. The public building construction process should be divided into the stage of the public sector taking the lead for pursuing the project (establishing project budget plans, etc.) and the stage of the designer, constructor and operator using their professional expertise to take the lead. Therefore, participation of experts and general users should be set by differentiating the roles per project stage. The stage for collective valid opinions of general residents and users should be in the planning and operation stage, and it is necessary to differentiate the valid opinion

collection stage of experts in the design stage.

The planning stage can be seen as the awareness and demand stage to set the initial project vision and to check the participation level of the community in the goal-setting process, and the vision can be set by sharing awareness. The detailed project planning procedure can be deemed as the proposal stage for checking the participation level of the community, and the roles of brainstorming and concretizing should be considered.

Considerations for finding system improvement plans

Based on the case-studies of participation design systems in relevant fields both domestically and abroad, grounds for governance-type participation design implementation was provided in the community public building construction process, while simultaneously dealing with matters that act as interfering factors while pursuing the project to draw up matters for systematic improvement.

As detailed systemization plans, plans for improving the participation design system from the perspective of governance such as providing participation design-related guidelines, operation and delivery systems, support entity, etc. were proposed to establish domestic and foreign community public buildings.

Revision of standards for providing participation design environment by establishing conditions for opening up public data

– Revision (proposal) of the ‘Act on Information Disclosure of Public Institutes’

This law regulates the subjects, etc. related to the public announcement of administrative information. Currently, the subjects include information related with the everyday life of citizens such as education, medicine, transportation, tax, construction, waterworks, electricity, communication, etc. Plans were suggested to add information related to the everyday lives of citizens such as living SOC construction projects in the information that should be provided to citizens.

Revision (proposal) of the ‘Act on Providing Public Data and Activating Use’

This law prescribes the definition and scope of public data. Plans to add information (information related to living SOC project construction) of development projects, etc. closely related to the everyday lives of citizens were proposed in the scope of public data.

In addition, this law prescribes matters on establishing basic plans for providing

public data and promoting its usage, and it prescribes that policy directions goals, etc. related to public data should be included. Plans to add user-oriented public data utilization plans, access method, etc. needed for establishing living SOC including community public buildings were proposed.

Revision (proposal) on standards related to diversifying online participation and offline participation methods

– Community public building establishment guideline (tentative name)

There is currently no establishment guideline from the perspective of participation design on community public buildings. Therefore, it is necessary to suggest utilization plans of participation designs in detail to establish nation-wide and practical guidelines that all local governments and public institutes can refer to.

Revision of standards for using experts to smoothly pursue projects consistently based on participation design (civil expert, operations expert, etc.)

– Revision of civil expert operation guideline

The Ministry of Land, Infrastructure and Transport announced the civil expert system operation guideline pursuant to the ‘Framework Act on Architecture’ and the ‘Public Sector Architectural Design Work Standards’ in July of 2019. This guideline presents the work scope of supervising architects/planners and public architects. A detailed guideline is necessary for utilizing experts to pursue a project continuously and consistently based on participation design.

Plans (proposal) to utilize design contents optimized to participation design governance

Revision of architecture design contest operations guidelines to propose open judging methods of design contents that can attract user participation and evaluation

Ministry of Land, Infrastructure, and Transport also announced the operational guideline that should be followed during architectural design contests. In order to activate the participation design method in design processes, a systematic base is needed from the design invitation stage. Therefore, it was proposed that additional guidelines be provided for drafting design guidelines centering on users, holding review committee meetings with the participation of users, and disclosing the review contents.

Revision (proposal) on base standards for procuring appropriate budget and period needed to apply participation design

– Plans for improving compensation standards and work scope of architecture companies for public bidding projects

Architecture companies provide services according to the contract based on the budget and project pursuant to the corresponding standards of the public bidding project. In the event that a public constructor uses the participation design method during design work, they must meet with residents frequently and communicate with them for planning much more often, and therefore, clear compensation standards for this are needed.

This study focused on system improvement plans to promote participation designs of community public buildings to deduce the outcomes of research. Therefore, additional research to enhance effectiveness such as public building participation design manuals, etc. needed on site is necessary.

This should include the participation design time and subject per public building type, feasible participation tools and instructions on its user per establishment process, major checklist per establishment process from the perspective of participation design, etc.

Keywords: Community public buildings, Participation design rules, Participation design institutionalization