## **ABSTRACT**

## A Comparative Study on Space Organization of Elementary School in Korea and Japan

■ Collaborator Cho, Jin-Il(KEDI)
Rieu, Ho-Seoup(Dong-Eui Univ.)
Choi, Hyeong-Ju(KEDI)
Park, Hee-Won(KEDI)

Cooperator
 Fukuei Saito(NIER)
 Masahiro Kobayashi(NIER)
 Yoshiyuki Habasaki(NIER)

Since there have been increasing demands on new space organization which responds to various and rapidly changing educational and social changes i. e. u-school, smart school, green school, eco-friendly school, energy and ecology school and creative school, there is a movement to newly change space organization of school not only in Japan but also globally. This study aims on finding a direction of desirable space organization of future elementary school in Korea by analyzing current status of space organization of elementary school in

Japan. In this study comparison and analysis of curriculum of Korea and Japan, facility standards on national level and standards of national subsidy, current status of number of schools and students, transition of changes in facility area of elementary school for last 10 years are included. In Korea and Japan each 7 elementary schools which were constructed after 2007 and are good in space organization and school planning are selected. The comparison and analysis of satisfaction level on physical educational conditions and facilities

such as current status of space organization and how to use them are conducted in this study. The contents of analyzing space organization are 'entry and placement, outdoor space', 'space program' and 'phase structure and organization of unit space'. The results of analysis are as followings.

There is an entrance which is divided into entrance for pedestrian and entrance for vehicle in elementary school of Korea and Japan. Unlike elementary schools of Korea, elementary school of Japan opens school gate only during time for to and from school for the sake of safety of students and school security. And visitor's accessing to school is very strictly controlled. However, in Korea there is not much restriction for visitors accessing to school facility. There is a clear separation between schoolyard and school building in elementary school of Korea and Japan. Placement of most elementary schools of Korea is finger style, E type, H type and C type. However, placement of elementary schools of Japan is slotted type, square type, barred square type, L type and parallel type which adapt to site conditions. The outdoor spaces area of elementary schools of Korea is larger than that of Japan. The outdoor spaces area excluding schoolyard of elementary schools of Korea is also larger than that of Japan.

The type of interior space is pretty same in elementary schools of Korea and Japan. The type of special classroom is more various in elementary schools of Japan than that of Korea. Since Korean teachers spend most of time in the classroom, the size of teachers' room is getting smaller. However, Japanese teacher stay in teachers' room and size of teachers' room is bigger than that of Korea. In terms of space for extra curricular activity there is space mainly for students in elementary schools of Korea, but elementary schools of Japan provide space not only for students but also for local residents.

Elementary schools of Japan and Korea are similar with respect to plane structure and unit space, but there is big difference in operating school. Elementary schools of Korea conduct most of class in the classroom and students move to special classroom for such subject as science, music, art, physical education and practical course which require experiment and

practice. That is, so-called 'General classroom+Special classroom(U+V) type'. Elementary schools of Japan also operates 'General classroom+Special classroom type', but there is other space in the General classroom for example open space and work space. This is called 'Open School' type. Thus, elementary school of Korea consists of one-sided corridor and elementary school of Japan consists of one-sided corridor and double-loaded corridor. The space structure of corridor in elementary school of Korea is only for passage for students. The corridor in elementary school of Japan operates not only for passage but also for such various learning spaces as learning through play, learning with small number of students, group study and learning per grade by securing open space, work space and multipurpose space.

With respect to overall satisfaction on school facilities satisfaction of teachers of both countries on 'size of schoolyard' and 'space for student support' is lower than other items. The satisfaction level on 'preparation of multimedia and ICT equipments for teaching-learning activities in school', 'preparation of barrier-free facilities and disaster prevention facilities' is high. With respect to satisfaction on the classroom, Korean teachers' satisfaction on 'space for learning through play and preparation of teaching aid' is lowest one. Japanese teachers' satisfaction on 'sufficient space for post and storage in the classroom' is lowest one. With respect to conditions of the classroom, the satisfaction level on 'sufficient space for group activity in the classroom' is lower than other items in Korea but higher than other items in Japan,

Based on this study followings are proposed.

First, it is necessary to change the perception to consider facilities of elementary school not a simple learning space but space for life. It is also necessary to change function of school facilities.

Second, it is necessary to amend standards of school facilities responding to current situations and to make a manual based on various domestic and overseas cases of constructing school facilities and provide it to education offices in-local and schools.

Third, it is necessary to provide systematically process of organizing school space of local

and user-oriented type. The process should be prepared according to business type. It is also necessary to apply process to real plan of school facilities.

Fourth, it is necessary to develop and disseminate a guideline for continuous monitoring and organizing new space on school facilities.

Keywords: school facilities, elementary school, primary school, space