

BEHAVIOR OF STUDENTS IN A NEW TYPE OF JUNIOR HIGH SCHOOL IN JAPAN

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1 Objective of This Research

Countries along the Silk Road have their own culture, and they have developed their culture for thousands of years. Education is an important means to sustain and develop the culture in many countries. In Japan, education is gradually changing recently, and school design is changing according to the change of education in many areas. OECD(Organization for Economic Co-operation and Development) Program for International Student Assessment (PISA) assesses to what extent students near the end of compulsory education have acquired some of the knowledge and skills essential for full participation in society. The assessment is made in four subjects: Mathematical Literacy, Problem Solving, Reading Literacy, and Scientific Literacy. In 21st century, the ability required for students is not the simple accumulation of knowledge, but the ability of decision making and application of acquired knowledge to various stages in daily lives.

This research shows an example of an attempt of a new school education in a new type of school building in Fukui City. A new junior high school was constructed in 2008, then students in this district and teachers moved to the new school. In the old school before the move, the operation system was the existing system where students have their own classrooms to study usual subjects and they move to some special rooms when they have classes of music, art, science laboratory, and so on. However, school changed operation system from the existing system to departmentalized system where the school has only specialized rooms for each subject and students move from room to room every hour. Although students do not have their fixed classrooms, but they have their home bases used for their class meetings, lunches, self studies, and so on.

In this research, the behavior of students in the old school facility before the move and the behavior of students in the new school facility had been investigated and analyzed. The

change of behavior before and after the move has been analyzed. In this research, we are seeking for new type of school spaces for better quality of educational environment.

2 Outline of School Facility

The subject of this research was Fukui City Shimin Junior High School. The number of students of each class in 2007 is shown in Table 1. The age of students varies from 13 to 15.

Table 1: Number of Students in Each Class

1st year		2nd year		3rd year	
Class	Number of Students	Class	Number of Students	Class	Number of Students
1-1	28	2-1	27	3-1	31
1-2	27	2-2	28	3-2	31
1-3	28	2-3	27	3-3	31
1-4	27	2-4	26	3-4	30
1-5	27				
Total	137	Total	108	Total	123

Figure 1 shows the first floor plan of the old Shimin Junior High School before the move. This is a typical floor plan of junior high schools in Japan where classrooms are allocated along corridors. Students have their own classrooms and study most of subjects there. They move to some special classes when they study art, music, cooking, science, and so on.

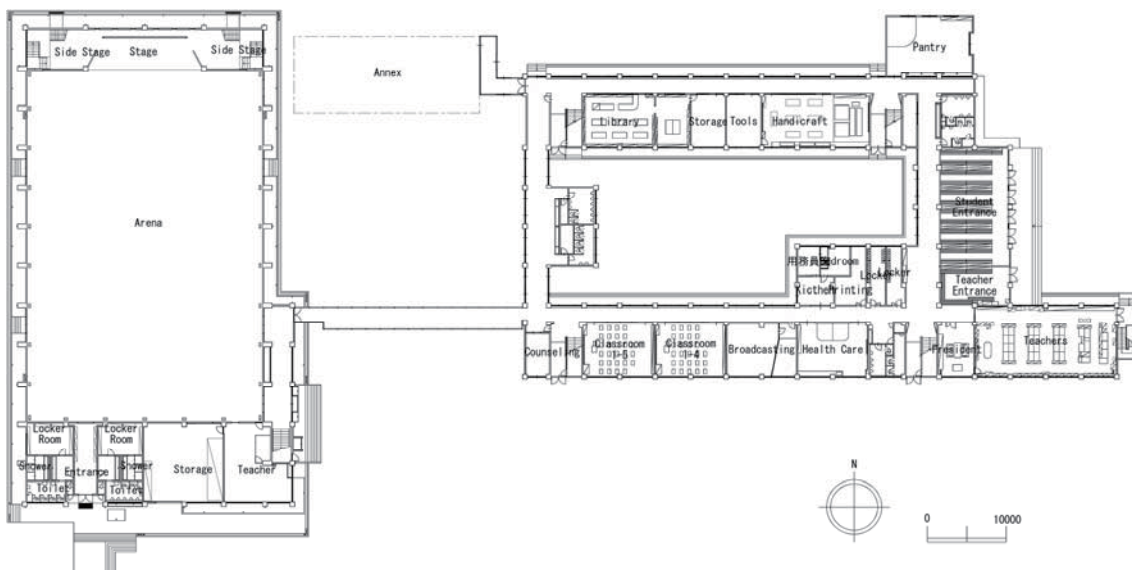


Figure 1: The First Floor Plan of The Old Shimin Junior High School

taking videos, and enquires. In 2007, first, we heard from some teachers about the behavior of students and understood outline of the school. Then we surveyed by taking photos and videos in July, then we recognized the outline of behavior of students. In September, we made systematic survey using the result of former survey. We made schedule of taking videos at planned locations. On the other hand, we observed the location of students and plotted the location on the drawings of plans at each break time. Later we analyzed the result of these observation and photographs, and made an equate to provide with students in December. This procedure was repeated in 2008 after the move.

4 Behavior of Students in the Old School

In the old school before the move, students study most of subjects in their classrooms except for some specialized subjects like music, art, handicrafts, and science using laboratory. Photograph 1 shows a scene of a classroom in a study hour. Most of study is made only in classrooms. Figure 2 shows a scene in a break between study hours. Most of students stay in their classrooms or in the corridor around their classrooms. In the break after lunch time, many students play in the arena, and some other stay in library.¹



Photograph 1: A scene of a classroom in a study hour



Photograph 2: A scene of students in a break time

5 Behavior of Students in the New School

In the new school building, open space is used for various purposes like a part of class room, communication between students and teachers, self study, and meetings. Photograph 3 shows a scene of a study hour. In this scene, one class is studying in a room, and another is studying in the open space. They can choose the appropriate space according to what

type of study they need, for example individual study, group study, using some materials or tools, and so on.

Students move from one room to another at every break time between study hours. Students can choose various places to stay in break times. They choose classrooms, homes, open spaces, balconies, and library to stay in break times between study hours. In the break after lunchtime, many students play in the arena. The choice of spaces to stay in break times became wider than before. So teachers and students can have more choices of spaces to satisfy their needs than before.² Photograph 4 shows a scene of a break time between study hours. Some boys are looking at materials and talking with friends in the open space, and some girls are walking to the next class. Some study tools or materials of each subject are arranged in each open space.

6 Conclusion

The behavior of students has been changed according to the change of space. In this case, a lot of open and multi-purpose space have been allocated in many part of he school building. Then the possibility of choice of spaces became wider than before. This example of a school shows that the variety of space make some more possibility in variation of education. Architects should consider how users use the space of undertaking project. The behavior of students and the way of education changed in this school, then some teachers have noticed the relation between space and education.



Photograph 3: A scene in a study hour



Photograph 4: A scene in a break time between study hours

7 References

[1] Tsuyoshi Kawano, Satoshi Matsushita, and others. A Study on Place to Stay in a Junior High School - A Study on The Use of Fukui Shi S Junior High School Part 1 -, *Proceedings of Architectural Institute of Japan*, Vol. E1, pp.761-762, August, 2009

[2] Tsuyoshi Kawano, Satoshi Matsushita, and others. A Study on Place to Stay in a Junior High School with Departmentalized Classroom System - A Study on The Use of Fukui Shi S Junior High School Part 5 -, *Proceedings of Architectural Institute of Japan*, Vol. E1, pp.1073-1074, September, 2010