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# Design Method of Work Space

## Focusing on Personal Space

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The space has purpose for use. The space is designed according to the purpose to use. When thinking about the use of the space, most spaces are the one for human who gathered. When the space intended for gathered human is designed, it is necessary to understand the activity and the psychology of them and to apply it to the size decision of the space. This research focuses on the concept of “Personal Space” for understanding the meaning of space in which human gathered. And in this research, the space to aim at work in a constant range such as classrooms and offices is defined as a “Work Space”.

A past research on “Personal Space” has chiefly treated the change in “Personal Space” by subject’s personality and relation to other person. A general examination method was a measurement of the boundary of Personal Space based on report of subject’s uncomfortable feeling. But, I think that investigation about relations of “Personal Space” and human’s activity is necessary for the design of an actual space. The purpose of this research is to clarify the relation between “Activity in Work Space” and “Personal Space” by the experiment.

In this research, two kinds of experiments are conducted. In first experiment, the change of “Personal Space” on some communication is measured by a projective technique of MAPS (Make a Picture and Story). MAPS is a technique for measuring each side of subject's

character from the picture completed by arranging illustration of human's shape.

Next, the experiment is conducted by using the space of the full-scale to clarify the relation between "Work in space" and "Personal Space" from the result of MAPS. In this experiment, "Individual working" and the "Cooperative working" were set to the condition of the experiment as work in the space. In the "Cooperative Working", one group consisted of two subjects, they discussed about the selective dilemma task, and they decided it to one answer. In another condition, the subject took the Kraepelin-test as individual work. Moreover, the condition was set from the result of MAPS with the distance put between subjects as a distance of the "Individual distance" and "Social distance".

By the result of experiment that used MAPS, it was clarified to do the communication by using the distance of 75-100 centimeter in the work space. This distance corresponds to the "Individual distance" in four distance belts that E.T. Hall defined.

As a result of the second experiment, the quantity of work of the group that uses "Individual distance" has increased compared with the group of "Social distance". However, group's of "Individual distance" quality of work was low. Moreover, by the result of "Cooperative working", it was clarified that man left in "Social distance" tended to tune it to other person's opinion a little.

In the size decision of the work space, we should note the work done in the space, and must perform fitted placement plan for work in space. Specifically, in the office layout of "Island" types seen well in Japan, when communications with others like the conference and a meeting, etc. become centers of the business, an active discussion might be obstructed. It is desirable to install meeting space other than space for "Individual working" in the work that "Individual working" and "Cooperation working" are about the same importance.

To understand the relation between "Activity in Work Space" and "Personal Space" this research was done by use of experiment. The effectiveness of the introduction of the concept of "Personal Space" in the design of the work space was confirmed. The space that can do each work comfortably will be achieved by introducing the concept of "Personal Space" into the size decision of the work space.