外 国 語 要 旨

Title: What is the essential nature of the physical environment for nursery school?: Lessons from *the Children's Houses* of Maria Montessori

Author: TAKAHASHI, Setsuko

This thesis aims to specify the essential features of the physical educational environment for 3- to 6-year-old children, such as the equipment, furnishings, facilities, classrooms and buildings of nursery schools, which help to activate children's spontaneous behavior and thereby enhance their development. For this purpose, the nature of the physical environment proposed by Maria Montessori (1870~1952), who particularly emphasized the importance of the physical environment and designed *the Montessori Children's Houses* based on her theory of how children grow and develop, was investigated through the following three studies.

In Study 1, an intensive content analysis of 12 Montessori's books, consisting of her own writings and dictations of her own lectures, was conducted and revealed: (1) Montessori's grand theory of child development governed her educational method and its physical environment which was essentially planned to evoke and support children's competence and autonomy, and (2) eight properties of the physical environment, indispensable to the education of young children, were identified: for instance, the environment must be attuned to children's body size and their physical and cognitive abilities; be responsive to children's behavior; and activate children's spontaneous activities.

In Study 2, physical characteristics of the Goethehof Montessori kindergarten (Städtischer Montessori-Kindergarten im Goethehof) designed by the Atelier Singer-Dicker during 1930~1932 in Vienna were analyzed. Nearly 100 pieces of related materials kept at the Bauhaus-Archiv in Berlin, consisting of floor plans, colored axonometric drawings, and photos, were used as data. It was revealed that 89% of the features of Montessori's educational environment suggested by Study 1 were realized at the Goethehof kindergarten. It is noteworthy that the Atelier Singer-Dicker proposed

unique and excellent ideas as specialists in architecture and design to sufficiently overcome a lack of room with the construction of activity corners in a room and a color-coded floor to clearly indicate where each activity was to take place. In addition, it was recognized that the director of the kindergarten gave useful suggestions to the Atelier Singer-Dicker in the process of planning the educational environment.

Study 3 aimed to investigate to what extent current Japanese Montessori nursery schools have embodied the physical elements of the environment suggested by Montessori. A questionnaire was constructed and mailed to 701 nursery schools all over Japan. Replies from 95 Montessori and 192 non-Montessori schools were analyzed. It was indicated that: (1) Montessori schools embodied significantly more elements than non-Montessori ones; (2) Montessori schools maintained their policy of providing various sizes of tables, a special room for afternoon naps and a quiet space for enabling children to carry out activities quietly at their own pace.

Suggested by these empirical findings, what we can learn from Montessori, now and for the future, is discussed. Specifically, it is discussed that: (1) what is an appropriate physical environment of nursery schools that will surely foster spontaneous and independent activities in young children; (2) what are the roles of architects and designers; (3) how they successfully collaborate with nursery teachers in constructing the physical educational environment; and (4) why children's voices as to their physical learning environment should be respected.