

Abstract

This research focuses on the study of the design guidelines for physical environment of kindergarten to support learning based on Multiple Intelligence theory. It would be useful for the headmasters, architects and interested persons to apply the research result to site selection and the appropriate design for the physical environment of kindergarten for enhancing educational quality development and the quality of national juvenile life in the future. The design for physical environment of kindergarten is an approach that supports learning of kindergarteners in 8 dimensions, through Multiple Intelligence principles, and yet it has not been substantially investigated.

The objective of this research has mainly four parts; firstly, studying the concept of Multiple Intelligence theory to determine fundamental design of physical environment which support the Multiple Intelligence principles in 8 dimensions: linguistic intelligence, logical - mathematical intelligence, visual - spatial intelligence, bodily - kinesthetic intelligence, musical intelligence, interpersonal intelligence, intrapersonal intelligence and naturalist intelligence; secondly, studying and collecting the data from case studies of kindergartens regarding the design characteristics of the physical environment in each school, the characteristics of area utilization, the curriculum and analyzing in term of statistics the data from interviewing the headmasters, teachers including questionnaires collected from teachers and parents to sum up results concerning the relationship between the fundamental design of physical environment and the children's development in various dimensions; thirdly, concluding the guidelines of site selection and the design guidelines for physical environment of kindergarten that support learning based on Multiple Intelligence theory; fourthly, proposing a design of a kindergarten based on Multiple Intelligence theory.

This research employs the survey and observation of 10 case studies of the private kindergartens in Bangkok; all of which have passed the assessment of National Education Standards and Quality Assessment. Thus, the result from the analyses of the relationship between the data from the observation of the schools' physical characteristics,

the curriculum and the data from interviewing the headmasters, teachers including the data from questionnaires of the teachers and the parents, reveals the appropriate design of kindergarten's physical environment for supporting learning of the kindergarteners; the design of natural learning area in its characteristics of physical environment has the most impact on children's learning. And the result shows that the green area should be located at the front or at the side location of school rather than on the back. As for the appropriate site selection of kindergarten, it should be located at the residential area with peaceful context, fresh air and easy access. The final conclusion, regarding the design guidelines for physical environment of kindergarten that enhance learning, covers 4 characteristics; firstly, the learning area should be varied; secondly, the area of school and the classroom should be designed with well ventilation; thirdly, the appropriate design of learning area and the equipments in classrooms should be concerned with children's dimension; fourthly, all of learning area in kindergarten should facilitate uses and provided with flexibility.