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Resurgence of Indoor Environment of Preschool Building

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Abstract

Spatial aspects of children's activities, which meet a lot of needs and within which children have endless opportunities to act, have a great importance and diversity. In this context, the following fields may be perceived as basic fields of children's activities: nature, outdoor and indoor public areas and family environment-house (Tanic, Kondic & Kostic, 2010, p. 346). In addition to these, preschool facilities offer spatial opportunities for children's habitation, upbringing and educational accommodation. Many researches have shown that early childhood development is in accordance with the characteristics of the environment in which children reside. In his researches, Jean Piaget has defined development as a unity of the process of assimilation of the organism, which varies according to the characteristics of the environment.

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1. Correlation between needs and environment of preschool children

It has been determined that children development results are a consequence of the quality of time spent in preschool education facilities and their programs [1,2]. Preschool children require facilities with physical and tactile properties which will meet their needs for beautiful, imaginative, attractive space. Establishing a system of preschool institutionalized nurturing and education of children has enabled more quality progress of children aged 1-7. Physical structures designed for preschool children upbringing and education, i.e. exterior and interior environment, have a

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multiple influence on cognitive, social and emotional development of the children. Preschool children, as especially sensitive and vulnerable social group, within lots of development-essential needs and demands, require interior environment that is the product of careful and precise design process, in other words- the environment that will provide comfortable, healthy and stimulating stay. Thus, the interior environment created in this manner should correspond with children's needs in terms of their progressive development.

Child's development depends not only on environmental conditions, but also on child's activities in the process of adapting [3]. Interior design of preschool facilities has a direct effect on children's development [4]; therefore the designers' job is to study children's social and physical needs and design interior space in order to satisfy their needs. The way the environment provides both physical and cognitive development is defined following the Vygotski concept, i. e. the zones of perception development and their use in communication. According to Vygotski, efficient learning starts only when a child is given challenges which are slightly beyond its present functioning level [5]. Child's capacities and abilities, in terms of preschool environment impact, can be characterized as an opportunity to have active and efficient relation with the environment. Child's development during the early age implies physical (health condition) and motor development (gross and fine motor skills), psycho-social and emotional development (in terms of social relationships, culturally appropriate behavior, values, and self-esteem), and cognitive and language development.

Physical environment is to provide accessory devices which will enable a child to participate in more difficult activities than those it has already had. Elements constructed in space can assist and support children with their functioning within limits of their own abilities, and simultaneously activate processes which guide towards improvement. One can identify children's mental and physical needs, emotional states, social aspirations and influence of social environment by observing child's activities, actions and play. In terms of space of abiding, discussion related to psychological needs of preschool children emphasizes a certain group of needs, which can be singled out in several groups: the most important group of needs refers to children's safety, their understanding and orientation in the space, then the group which refers to children's need for equipment within the space and possibility of inspiring children to recreate the space, and group which refers to children's personality and privacy within the space. Analyzing the needs of a child in terms of space where it abides, the following needs are determined:

- Need to feel safe, secure and superior in the space;
- Need to be mentally and physically active, and surrounded by various gadgets which stimulate creativity;
- Need to achieve emotional relationship with the space, to be close to it and identify itself with it, as well as to find a place for being alone and in private".

Construction of environmental components which will enable a child to acquire skills and meet challenges, includes specific space features. The following characteristics are considered important for child development: safety, simplicity of use, availability, complexity, encouragement, re-construction, identity, privacy.

Interior space of physical structure should satisfy current children needs, as well as follow the transformation and appearance of new needs in order to satisfy them as well and challenge children further. The properties and features within interior preschool space which determine the development needs of a child, partly refer to the quality of architectural design, i. e. the quality of organization and materialization of preschool premises.

2. Indicators of effects of physical environment on preschool children

Influence on children's stay in preschool facility is perceived through the effects of designed and built surroundings, that is, their capacity, functional organization, technical characteristics of the space, form and materialization; through the effects of implemented equipment and lighting, heating, cooling and ventilating units, as well as the equipment that children directly use for various activities. The above mentioned factors have influence on children's daily activities and their psychophysical and health condition. Quality characteristics of designed internal and external surroundings of physical structure, equipment and furniture will largely affect children's daily planned activities.

"Commonly accepted definition of quality in preschool education is that those are the potentials and

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