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THE IMPORTANCE OF INTERIOR DESIGN FOR CHILDREN'S BRAIN DEVELOPMENT

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Abstract

Children experience an important growth period in their golden age, i.e 0-5 years old. Thus, a lot of parties are concerned and start to build early-childhood school. Unfortunately, only a few of them are aware of the importance of establishing a space corresponding to early childhood growth period. As a result, children often feel afraid to enter the classroom and cannot focus when they were in it.

In order to find the solution of this problem, some methods are required for creating appropriate space which can help the brain development in early childhood. The aim is to maximize the intelligence potential of children through the interior design approach.

There are three main concepts that are applied in designing the room to improve our loved ones brain development, which are the concept of playing, creativity, and interactive forms in the room. These concepts are strengthened by some treatment such as color selection, application of wall treatment, and furniture layout.

Hopefully, the process of children's growth and development could be helped by implementing the concepts and treatment on classrooms interior design. The intelligence potential of the children also could be maximized when they are interacting with the classroom environment. The function of early-childhood school can also be supported with the application of the interior design concept that is suitable for our children's brain development.

Keywords: interior design, brain development, potential intelligence

1. Introduction

Children have the important period in their golden ages. Based on the research results, about 50% of adult intelligence capabilities have occurred when the child was 4, 80% has been a rapid development of the brain tissue when the children were 8 years old and reached its peak when the child was 18 years old, and after its done, improved nutrition will have no effect on cognitive development. Affected factors of children's golden ages are the involvement of parents and environment. If children get the best things in their growth stages, they can make a great future for themselves and benefit to the development of world. The environment where children do their activities is also an important factor of children growth beside the importance of the role parents. Children's creativity and intelligence are two things influenced by their environment.

Children have basic needs that must be met for their development and maturity. For children, these essential needs include warm, caring, and responsive adults; a sense of importance and significance; a way to relate to the world around them; opportunities to move and play; and people to help and support their learning. Therefore, it is important to design a room specifically

for children so that they feel happy, safe, comfortable and free to do their activities indoor as they do outdoor.

In the past, the needs of room for children are met at home and in the community. Nowadays, however, these needs are being met in children classrooms. According to Jim Greenman (1988), early childhood environments should be ⁽²⁾:

- **Rich in Experience;** Children need to explore, experiment, and learn basic knowledge through direct experience. Indeed, childhood is a time when we learn firsthand about the physical world: the feel of water, the constant pull of gravity, the stink of rotten fruit, and the abrasive feel of concrete on a bare knee.
- **Rich in Play;** Playing provides a way for children to integrate all their new experiences into their rapidly developing minds, bodies, emotions, and social skills. Brain research supports this idea, stressing that children learn best through an integrated approach combining physical, emotional, cognitive, and social growth (Shore, 1997).
- **Rich in Teaching;** The role of the teacher is critical in a child's life. Children depend on teachers to be their confidant, colleague, model, instructor, and nurturer of educational experiences.
- **Rich with People;** Clearly children need lots of exposure to other people in their early childhood years. One of the greater weaknesses of urban-style society is that our children have less exposure to the diverse group of people living in the local village—baker, farmer, gardener, carpenter, piano tuner, bricklayer, painter, etc.
- **Significant to Children;** Young children need to feel important. In past eras, children were responsible to water the garden, do farm chores, and care for younger children. Children need to feel that what they do is meaningful to someone besides themselves.
- **Places Children Can Call Their Own;** a basic human need is the need to belong. Children need to feel they belong, too. They need to be close to people they know, have familiar and comfortable objects, and be in a setting that has a personal history for them.

According to the article designing space for children by Sheila Gains in 2008, there are some requirements for designing children's room based on their age ⁽¹⁾. For children in their golden ages, we can divide their ages into two periods, which are infants / toddlers and preschoolers.

Table 1. Requirements for designing children's room based on their age

Infants / Toddlers	Preschoolers
Safe spaces for them to explore	Furniture, equipment and environments sized for their success
Lots of care and supervision	Open space to play
Interesting things to do and look at.	Safe environments that promote independence and exploration

Sturdy furniture to hold on to and pull self-up with	Responsibility for keeping their space organized
	Decision-making opportunities

Based on these requirements, in order to maximize the potential of our children's brain development, there are three main concepts which should be taken into account. They are concept of playing, concept of creativity and interactive forms in the room. In addition, to strengthen these concepts, some treatment should also be considered when designing children's room, such as color selection, application of wall treatment, and furniture layout.

For infants and toddlers, safety is the most important criteria. Safety alone, however, is not enough for a well-designed room for infants and toddlers. It should also support their emotional well-being, stimulate their senses, and challenge their motor skills ⁽⁴⁾. Therefore, floors should be clean and warm for crawling and walking. Leave as much open space as possible for playing. An open space also creates maximum flexibility and lets children navigate easily and explore their independence. As for infants and toddlers room color, soft colors are preferred to be used because they are more suitable for the children.

In response of the needs of open space, all furniture and equipment should be placed around the edge of the room. All equipment should also be child-sized and has rounded corners so it doesn't threaten children's safety. For example, opened-low shelves for toys work better than a toy box. Children can learn to make decisions if they can see a variety of toys and pick a toy from the shelf rather than dump the toy box. In addition, children's eye and hand coordination are enhanced if interesting things can be looked at and touched. If a toy box is used, make sure it is safe. Children have died or been seriously injured by poor-designed toy boxes. Children can become trapped inside a toy box or have fingers smashed and pinched by lids and hinges which were not designed with the safety of children in mind.

As they are growing, good room design can help preschoolers make good decisions and learn to care for themselves and their room. Since their motoric sensor is still developing, an open space for their room is an essential need. To encourage children to move and explore, environments like slopes, slides, small ladders could be considered. For color application on their room, preschoolers prefer a warm, bright color scheme that compliments their natural extrovert nature (Mahnke, 1996)



Figure 1. Designing children's room can stimulate their move and their eagerness to explore.

In addition, their urge to explore things also grows bigger. Therefore, some accessories could make good addition when designing room for preschoolers. A picture label of toys on a low shelf shows your child where an item belongs. Putting toys away teaches children how to sort out and match things up as well as making cleanup faster and more fun. Preschoolers will need some help or supervision during clean up as they can easily forget what they are supposed to be doing and start playing with everything again. Remember size and scale for preschoolers by hanging pictures, mirrors, closet rods and clothes hooks at their height and eye level. Preschool age children learn independence when they can do many tasks for themselves. A child-sized table and chair can be a good investment. Having a special place to work on projects without having to clean up for meals can encourage creativity and lengthen your child's attention span. Self-grooming will be easier if the child can reach the sink with the help of a sturdy stool or box.

Thus, designing children's space becomes an important part for us as parents, lecturers and children themselves. There are a lot of things that has to be taken into account to maximize their growth and potential. In addition to that, a good design of children's room is also able to give positive effect on our children's psychology development.

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