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### Evaluation of design criteria for children development and training center

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#### ABSTRACT

*In this paper it has been attempted to investigate the lack of attention to how specific spatial characteristics of the children except existing places such as nurseries. In order to achieve the standard center to foster children understanding their mentality is the first issue that must be studied. Exploring the spiritual characteristics and complexities of children can not be possible except in accordance with the different aspects and background of their growth in various age periods. In order to achieving the standard center for fostering children, the first issue that must be studied understands their mentality. Exploring the spiritual qualities and complexities of children are not provided except in accordance with the characteristics and their different growth backgrounds in different age periods. According to previous researches game or playing is the most important activity that helps children to communicate and educate and sometimes therapy in specific fields. Investigating game as a proper way to train, the variety of games, the various kind of play environment and how to treat some abnormalities thereby are the issues discussed in recent research. Another consideration concerns the importance of artistic activities among children which is very evident in studying identification of their abnormalities. At the end of this study after investigating how to understand child and communicate with him/her, aiming to recognize Specific spatial characteristics for better training children, The physical and physiological criteria and characteristics is Reviewed and ends up to a list of required spaces and dimensional characteristic of spaces and needed children's equipment.*

**Key Words:** Children, Space, Interior design, Development, Growth

#### INTRODUCTION

All children all over the world have same growth patterns in growth field from the moment of the beginning of life and during their own process of enlarging. From another perspective, the children symbolize the different types of human societies and various cultures [2]. While growing the children are also gradually finding behaviors, thoughts and ideas of elders and social class as well as learning their own social and cultural identity. Children make up almost a quarter of the world's population. No society is existing without a child [6]. There are individual differences among them like adults. Children are different from each other mentally and physically as well as in terms of character, personality and behavior. Each of them is a symbol of new life and creation. Psychologists study focuses on how the process of growth, trend of growth, consistency of mental and physical growth changes, and the formation of character and personality, as well as emotional reactions, the habits and behavior of the children. They try to find the cause of some unusual behavior in adults in relation to childhood and make the psychoanalytic theory to interpret child's behavior [5]. They try to help the educators by their findings to be successful in fostering

healthier generation. Psychologists know child as a window to explore the human mind and understand how they can be learned. A human child with clean conscience is small and ready to accept the education. He/she is the one who must live among the people with own self body and spirit; who have special physical and psychological needs; with senses to perceive and test his/her surrounding world; with a heart full of love and the need for compassion; with the emotion tends to foster the ideals of humanity; with an innate talent to distinguish good and evil things as well having the power of personal development and evolution. If parents, educators etc. accept the existence of child and be aware of Uniqueness of his/her body and soul then they will know her/his needs and would step in its development [4]. they would provide him/her to moral and material progress and work in the public interest and humanitarian ideals by strengthen of feeling and thinking, and enhancing care and judgment of child, It is time when a child can be a useful member for the human community [10]. Based on various specialized studies on children background this paper is offer high quality set according to psychological principles etc. to grow and foster the Children while different with other existed centers; This collection takes a Special look to many of children's needs including the needs of educational, recreational, cultural etc. Since the start of each process is the most basic of its development stage, childhood impact more on the maturity and development of every human; This paper attempts to explore and discuss the required standards for "children development center as a different center with centers such as nurseries, kindergartens etc. in order to Migration, discover and develop children talents in all areas as well as to prepare children for improving the quality of their lives and building a better world. Evaluating criteria required for making a good place to explore and promote the children talents and prepare them (psychologically and physically) in order to improve the quality of life [9].

#### MATERIALS AND METHODS

children have different requirements according to their own mental and physical differences in any age. In recent study firstly, the different age groups of the children and their difference have been investigated to address the needs of each growth period in designing "child development center". According to such study, this categorization has a central role in planning and physical designing the given center.

Interacting with the children and its quality as well recognizing other important aspects of the child are of the other important issues that should be considered in this process; "game or playing" has an important role in the area of understanding the children. This study examines the types of game, benefits of games, the way, quantity and requirement of the adults involvement in the children games and its true and useful control. in 1989-1368 The United Nations organization has adopted a treaty in the field of children's rights in the family and society committing the treaty member nations to implement its provisions in their countries. Accordingly, the generalities of such treaty have been taken into consideration at discussing on designing children development center

#### Psychology of child development

The first issue that must be evaluated in terms of the psychology is the cognition of children's mood, so such issue can be studied regarding to the children's growth characteristics in different periods and different contexts of growth and needs of each age group. As for the main purpose of recent study namely addressing different special characteristic for children on the basis of basic needs and their fostering, The first step to achieve this goal is to understand such requirements leading to the necessity of existing of required facilities to grow and developing completely abilities and talents [7]. Growth process is the continuous and consequent trend, so mechanical resolution is not possible among the age groups. However spatial flexibility become more important as well as causes that each age group takes advantage of spaces in proportion to their knowledge and understanding, as a result the individual differences between audiences would not disappear [3]. In terms of child developmental, psychologists have developed different theories on which they have offered the different needs from their own viewpoints [11]. these are mentioned briefly in this article in his theory, Syzer refers to the development periods, child evolution as well as the initial period of growth or period of growth and evolution of affiliation motivation, the period of secondary closed motivational techniques and the secondary open social motivational techniques. In his theory, Piaget regards cognitive development of the individual in each of the four core courses including the smaller sub stages as follows:

a. Sensory – motor course: This course covers almost 2 first years of life. The child's mind becomes active with the help of sensory- motor organs thereby a child can knows own self and surrounding world.

- b. Pre-operational course: the Children can be able to separate the events and objects from the scope of senses and own activities from two to six years. Such ability is emerged through flow of secret functions of the child; at this stage, the child can realize both absence and presence of the objects as well as the present, past and future.
- c. Objective operations period: The children are able to infer objectively and reasonably in this period from seven to eleven years old. At this stage, the child knows how to move and use the signs.
- d. Formal action course: this period starts from twelve years and continues to older ages during which the adolescent thinking get far from Objective facts so it is altered to is an abstraction ones. Unlike childhood, Adolescent can think of own thoughts now [8].

Maslow has categorized the child's needs based on the child development courses. Physiological needs, safety needs, the need for love and belonging, the need to self-respect, need for self-actualization [5]. Children space need to be consistent with the kind of children's activity in different age groups. The main activities for small children (infant) consist of Sleeping and eating; growing steadily with children growth (between 2 and 3 years old) her/his needs to sleep decreases. Frequency of eating becomes less and game time is increased; it continues until the formal training begins. It can be concluded that the growth of the child occurs in two distinct stages including before and after three years old. [14]. These differences led to create different conditions for each stage. Growth means changes which has always been associated with the development, These changes is done regularly and continuously in certain context. The growth can be observed, measured and evaluated; it can be appeared in nervous system, behavior and physical condition. Effects and symptoms arising in individual behavior, forms the index of his/her growth rate. Growth takes place in several of physical, mental, emotional and social aspects. Children's growth in different above fields and their skills in various areas can be divided to physical growth, mental development, social development and emotional growth. [14]. Designing the proper place adapted to suit the children's conditions depends clearly on a sufficient understanding of the characteristics of children's development. Physical and psychological characteristics of children at different stages of development is regarded as the basic of the planning the design of dedicated space and designing for them. The overall impression of the body sizes of children in different age groups Is necessary to make decisions about the number of children being able to use a space, the size of tables and chairs, toy cupboards and good door and handle height, WCs, seals and If space and its elements consistent with the body sizes of children, they can easily use the environments and tools related to themselves. In addition to sharing the ease of space design, addressing characteristics of mental, emotional and social growth is important in order to achieve the type of activities and games of children.

#### **An instrumental game to identify the characteristics of children**

Perhaps game is one of the most important activities that children in different age groups do in specific ways. This activity is one of the best ways to communicate with the child and his education as well as to prepare for entry into public life ; not only child can understand his/her own environment through play, but also he/she can shape own personalities with such way. The game is one of the best ways to communicate with the unconscious of the child. Children choose to learn and experience a kind of social life choosing the type of game and making own selves to obey its rules and regulations. The Child expresses own self emotions, fears and concerns through playing, he/she solves own problems in many cases; he learns how to share using the game toys with others thereby cooperation and respect for others will be grown in it. Using group games helps children through identifying strengths and weaknesses in Compared themselves with others, losing individual anxiety by child's being with friends, being familiar with the social rules and Regulations and being possible of expressing positive and negative feelings and so on. Personality known as the most important principal and subject fields of psychology science and the discussion base in motivation, perception, thinking, emotions, feelings, learning and intelligence areas and so on takes advantage of game and its impacts in own self growth and evolution. The character are mainly formed during childhood , the role of game and other creative activities like painting, storytelling and so on in development of human's character can be realized [6].

#### **Game Therapy**

In Addition to cases mentioned above for growth of the child, the game can be specifically utilized to solve the social problems and therapy of social incompatibilities as well as treatment of emotional diseases of the children. Moustalas Clark believes that game therapy is a set of attitudes through which children can exopress fully own selves in the favorite way with sufficient freedom, so that they can achieve their own merits and value by emotional vision towards a sense of safety. Those group games in which several children are mate with each other, the child can learn skills achieved less in the individual games [3]. oxlyn believes that group play therapy for children with social incompatibilities and problems is proper as much as individual play therapy is an effective in emotional

treatment of the children. Play therapy is divided into two active and passive types; in active one typically the child is given a limited number of toys, therapist plays with the child as well. In this game, specific situation is designed as the stimulating position. In passive Play therapy no restrictions is applied in children's game. He/she searches for the work permitted to be applied freely in different ways. Therapist is trying to be a part of the child's game not involving in the game as well not limiting toys [6].

### **Space for play therapy**

Relatively large room with smooth and washable walls, acoustic ceilings, light and bright colors, washable flooring and comedy to put the toys are needed In Play therapy. WCs should be close and accessible to children. Educational tools such as pencils, colored pencils, watercolor, paper, cardboard, liquid glue, table and chairs, a variety of toys such as different dolls, sand boxes, wooden and plastic dummy, wood pieces, hammer and mirrors as well as other toys should be available in play therapy room. The therapist should be prepare and provided some examples of these devices for child [6]. As mentioned above, the game is one of the best tools to help children specifying own selves. Child communicates with objects, own and others and then he/she finds understanding of all of three ones. Architecture also finds its own location within such objects and partly surrounding of the child.

### **Artistic activities**

Artistic activities for children will be discussed in relation to two issues: in the first case, recognizing desires, hopes, and adversity of Children through Artistic activities and other case namely Training and discovering children's talents and abilities with the help of proper equipments and good environment both in relation to the child's healthy development and his/her better future are important. In next part it will be mentioned to how to use such important tools in his/her education environment.

### **Chapter One: Understanding children through artwork**

Psychological research on children's paintings early began since 20th century. Before that, the efforts of researchers focused only on works of children and adolescents who were painting with adults styles as well they were trying to imitate adults' art. Children generally reflect their own desires and wishes indirectly through artistic activities rather than directly: Stories, music, poetry, drama, painting and playing are the reasonable and constructive ways by which children can express their feelings and wishes [4]. Children's Personality, experiences, desires and thoughts, especially the visual arts (including painting) are emerged through art activities. In art education, it is believed that all children are artists, so such art may represent their inner thoughts and desires; they want to embody what they have experienced or observed. Personalities and experiences of children can be received according to the Art specially visual Art such as Painting. If the system of education and training is capable of guiding the children in the use of inherent powers as well as develop their creative force, then it will achieve its real purpose [8]. One of the basic and normal requirements of children is need to express their own spirituality and communicate with others and the surrounding environment. they present their own states and feelings in different ways. Expressing Wishes and desires of the children are always not done directly, but rather they show them indirectly through artistic activities, so such indirect expression has a effective role on recognizing, training and helping children. Stories, music, poetry, drama, painting and playing are the constructive approaches by which children can express their dreams and feelings. Those also are appropriate ways by which we can identify emotional communication as well as educate and train children [13].

### **Chapter Two: the development of creativity**

Effectiveness of child development center depends on the special regard to childrens activities. One of such activities is performing artistic practices such as painting. Painting of each child reflects his/her spirit and talent and so on. teachers and administrators of given center can take effective steps to proper growth of children to develop this talent through accurate addressing these abilities; Using artistic activities such as painting we can have an important influence on moderation and treatment of mental and emotional problems or maintaining the mental health as well as The development of child's creativity, efficiency and confidence; it is inevitable considering the large space without environmental constraints for this kind of activity in the child development center as well as Providing adequate equipment and facilities in regard the previously mentioned importance of activities. Regarding The children and the need for proper education and development of human being from the early years of life is a matter That the parents, teachers and all those who dealt with children should be aware of it and have enough knowledge to educate and behavior correctly with children; in this regard, UNICEF has formulated the Treaty in 1989 in which the law intended to protect children has been considered; it forces governments to behave properly with children as society building and future men and women while not defaulting in their correct training and

development [12]. Iran has ratified given treaty by Stipulating national constraint in 1373; this convention means that governments are bound to protect children's rights, so if the violation is occurred they will be held accountable versus the international community. For example, Article 31 of the Convention is as follows. Member States of the Convention should recognize the right of the child to play and proper recreational activities. In the issue of designing center for children, the architectural design criteria should be considered in order to meet children's physical and psychological well-being and security. In this regard, The Housing and Building Research center has adopted criteria to be taken into account in this design. Measuring the body dimensions of human is divided to two categories in order to designing the space and equipment:

- A. Human surveying in static state
- B. Human surveying in dynamic state

Body measurements of children in different ages is essential to make decisions about sizes and heights of their used instruments and Main size is stature of children through which one can conclude other measurements of body needed to design space and equipment. Table.1 shows Iranian children in 0-6 years old who have been action criterions in this regulation.

**Table 1. Height of children in 1–6 years old (cm)**

Height (cm)	Age	
	Month	year
60	0-5	–
70	6-11	1
79	12-23	2
88	24-35	3
96	36-47	4
103	48-59	5
109	60-71	6

### General Design Criteria

A place for children development center is considered to be should include comfort, health and safety conditions to users. In this case, it is essential that the users adjacent to nursery should not be the producers of sound, environmental and air pollution. The most important uses compatible with such center are including residential areas, parks and green spaces and the cultural and entertainment centers. The neighborhood of children development center with tall buildings, to create shadow and its effects on wind flow should be considered. How to deploy buildings in relation to air flow must be so that the effects of troublesome winds are decreased and having good and desirable winds would be possible so that enjoying natural ventilation and allowing air into the building are facilitated [10]. The building of this center should have a minimum slope and roughness as well as accessibility should be Convenient and appropriate sunlight into the building should be appropriate according to the climate in winter and summer. the provision of adequate light Particularly through natural light from the sun is the most important factors of buildings architecture. One important and considerable point is that access to rescue vehicles such as ambulances and fire truck to the site must exist. It is better that the entrance of the child development center would not be in the main Street; the maximum radius of pedestrian availability from residential buildings to this center in accordance with kindergartens regulations should be 5 feet and/or 7 minutes walk.

### Psychological characteristics of the child's environment

To design, the space can be organized so that the familiar and attractive elements would be available for children through Hidden preparation using a mixture of functions and activities. Experience with the design of these elements helps designers to achieve the main objectives and anticipated plan, while coordinating with regulations ruling on the cause and effect, familiar reality and imagination of the child's mind [12]. Children also need to move in crowded and complex spaces In addition to act in exploratory space to achieve a proper understanding of the space, navigation as well in simple and quiet spaces. Routes like endless and long corridors and vast halls that passing through them need to spend a lot of time, removes child's understanding of time and make difficult the orientation; Thus, in this regard the variety of shapes and forms along the path with the use of signs, symbols, colors and variety of materials causes a person to understand the relationship between part and whole more stronger [15].

**Anatomical characteristics of the child's space**

Anatomical properties of the space in the form of investigating the generalities like appearance and how to enter the building, definition of threshold and the boundary, the rate of open and semi-open spaces, separating private and public areas are very important. However, issues such as creating the variation in space through feeling of being suspended and Impended and lying on inclined surface ,so in the tunnel, the air quality in walls of buildings' hallways and staircases, corners, shape, location, and how to connect to each other, Ordering of furniture in the space, and use of appropriate scale have been analyzed.

**Mixture of nature and educational activities**

The main idea proposed in the design of the Total and part of spaces is creation of proper orientation, design of specific points, the application of level difference in routes and the main centers, preventing design of closed volume, the use of full and empty spaces, use of natural light, access of natural spaces to nature and the presence of water; Spirit prevailing in most places has been proposed flexibly by the movement and the game. It seems that being unexpected and ambiguities in the formation in order to enhance children's curiosity has a lot of role in spaces [11].

**CONCLUSION**

Activities of children development centers should be consistent with the psychological structure of different age groups; in the following the summarizes and results of studies on the area of necessity of integrating the psychological, activity and physical features of this center will be discussed. Drawing is the language of the child , it also reveals his/her inner ,spirits and moods. Painting can influence mostly on more and better understanding children as well as adopting correct policies of conduct for educators. Play causes to greater understanding the inner of the child. during various games depending on their type, children can express their feelings and problems and Can also receive the different training [1] . Play therapy is effective in the elimination of child psychiatric disorders and adversity. Specific space for the children should include accessories, equipment and furniture in size and dimension of child and standards fit with children; these spaces and standards are different for different age groups; Educational environment with all the facilities such as laboratories, workshops etc. can be available in lower age groups closely related to game spaces and entertainment that combines learning with playing and is separated from them in the higher age groups.

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