

# Investigation the process of designing spaces for children and the children's satisfaction rate (Case study: Evaluation of Valency kindergarten in Switzerland and Frankfurt Sashnhausen kindergarten in Germany)

Seyed Alireza Hosseini Panah, Anahita Zendeh Delan

1- Master student of architecture,

Department of Architecture, Khorasan e Razavi Science and Research Branch, Islamic Azad University, Neyshabur, Iran.

Department of Architecture, Neyshabur Branch, Islamic Azad University, Neyshabur, Iran.

2- PhD in Architecture, Faculty Member of Department of Architecture, Neyshabur Branch, Islamic Azad University, Neyshabur, Iran.

Corresponding Author: Hosseinipanah1@gmail.com

*Abstract: Investment in preschool children has preventive effects of injuries during adolescence, youth and adults. Many moral corruption, have psychological roots of the childhood. Early relationship with personality patterns makes the children's future way. In the presence of a children in pre-school education centers of knowledge that gained close to reality and their needs as a manifestation of emotional development, social and intellectual they are formed. In this study, aim is intended to review the design principles for children and several case studies, the results to enhance the satisfaction and enjoyment of spaces where more children placed there.*

**Keywords:** Process design, Children, Satisfaction, Kindergarten.

## I. Introduction:

Many education scientists believe that the human personality is formed in the first 6 years of his life. So, pay attention to the needs of children in this age profile and create a platform for the growth of their needs on one side and the employment of mothers and the need for child care spaces on the other side, The need to create spaces in order to provide favorable conditions for the social development of their children and interact together determine the space to prepare children for entering into society.

The role of space and the environment should not be ignored. It should be noted that the physical condition have the undeniable impact on the behavior and thinking. Today, the buildings are used as kindergartens or primary schools are generally with residential and other uses that are not physically and basically fit children's needs.

Children are affected more and deeper on the environment impacts, because of their physical and mental limitations compared with adults. And thus they are less subject to environmental conditions that have forced than adults.

Children are the most susceptible age group of society, the most sensitive and they are in the most important years of their life, the basis of personality and mental, social and physical growth as long as they are being formed, they need to social life and communicate in its scale experience. (Moshtaghi, 2011)

Psychological evaluation of the child's behavior is an important issue in psychology, and there have been many attempts to develop appropriate tools in this regard. The psychometric subjects finding tools for assessing children's behavior is usually limited to one or more aspects of behavior are considered, to evaluate it from exploring the perspective of the children themselves, parents or friends.

For example Connors Behavior Rating Scale, Nglyry, Goldstein and Dladr (2005), attention the two measures of deficit and hyperactivity, or revised version Mastn child's play, Morrison and Pellegrini (1985), measures three social behavior, aggression and social withdrawal. (Yazdkhasti, Arizi, 2011)

Lack of sufficient attention to the people in childhood and ignoring the importance of social communication in children, causing factors such as somatic, anxiety, depression, social problems, thought problems, attention problems and aggressive behavior in young adolescents. (Yazdkhasti, Arizi, 2011)

Children are the most valuable resources for a society and whatever to preserve these resources, society becomes richer and happier. (Noori, 2003)

Children's educational centers, are the easiest and the most economical way to achieve this great group of society and any changes or improvements in their behavior can be sustained and dramatic effects on behavior of the society's future generations. (Eslamipoor, 2007)

It is clear that education and communication are inseparable. Educational programs for children if even they are good and productive behavior and communication, have not high efficient in improper physical and environmental conditions. (Helmsersesht, 1998)

In designed spaces for children, from learning the basics of citizen to taking the standard rules of their particular environments, child-centered is priority. In fact, how many kindergartens or schools are especially for children we know that care the user's physical and mental condition of the child, are consistent and able to increase the ability of communication and social interactions.

## II. Material and Methodology:

The research in this paper is, analytical - descriptive and based on library studies, documents, images and geometric analysis on Valency kindergarten and Frankfurt Sashsnhausen kindergarten that is concluded. The samples were first introduced and then analyze and compare the results.

### 1- Valency kindergarten - Valency - Lausanne:

Here, as the world's largest life is thought that is divided the variety of special spaces in accordance with any relevant age group.

1. The language of form in architecture.
2. The idea of the living world, the diversity of special spaces will be divided according to age group.

### Architect:

In a more advanced interpretation of program design for a "Children's Center", the outline of which was more modern and suitable for children were studied, and in parallel to all this, a language was a form of architecture. Building according to the size, length, width and height for all age groups is made and matched them with the world. The interior is bright and contrast of the structure and light of day make it more live and more lush to display.

Leads directly to the kitchen, and also a place for physical improvement.

Near the entrance, there is a place for smaller children connected to beds. Where they are separated in some way, but they can also see the park and the older children.

Space such as a living room common across the center of all age groups are connected, here they eat, play with others and argue together.

Here, for parents, there are three meeting places with children, when they bring children, or they take away children.

Younger children, have their own bathroom, which forms redesigned but out of view and encourage them to think more about their own body through playing.

For older children there is a separate chamber, but separate toilets were left open for boys and girls in the room.

Steps lead up to the older children world: the terrace on the bridge-like roof on the building.

Taking care to provide and the rest of the general public can be seen here and building for learning, provides an example of good documentation.



Figure 1 - Image of Valency kindergarten



Figure 2 - View of Valency kindergarten

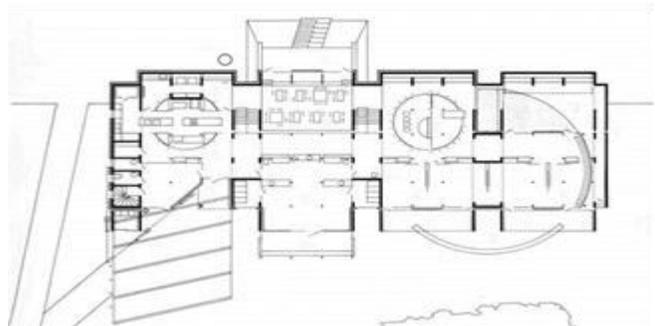


Figure 3 - Plan of Valency kindergarten

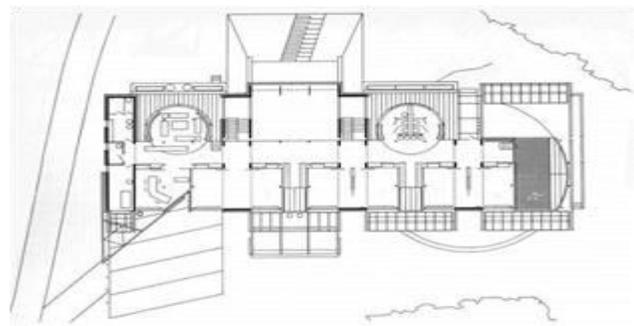


Figure 4 - Plan of Valency kindergarten

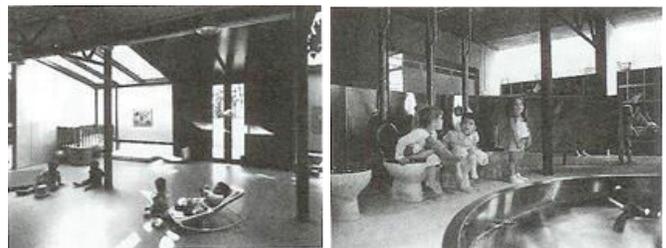


Figure 5 - Images of the inside of Valency kindergarten

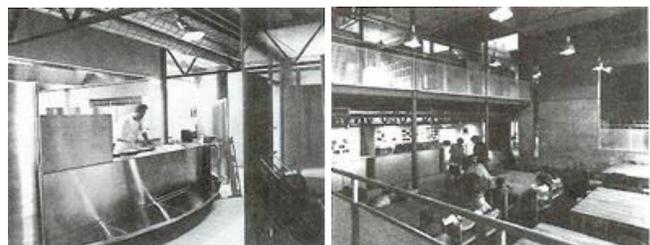


Figure 6 - Images of the inside of Valency kindergarten

2- Frankfurt Sashnhausen kindergarten, Frankfurt - Sachsenhausen - and Uwe Laske - Darmstadt City:

Architect:

The overall shape of the building arise from combination elements of the single, leading and motivating feelings. Pure geometric forms into consideration the child's cognitive behavior and do not allow to different concepts remain buried in detail for children.

Arcuate circular stairs tower and ceilings of the building refers to the specific and unique performance. In addition to the bridge ramp, front terrace like "Castle" playground and open area, like the corridor outside and rod finial, shows how structural flexibility can appear in forms and space to form primary children that experience and will display it: Tower - Bridge - Cave - Tent. During the creation, a more important sign that the child claims that he has been less attention paid to its environment. On the ground floor into three children groups are given separate rooms in a row, with the shape that has a protruding window and multi-functional rooms attached to it. With protruding windows "connecting" emphasized the importance of the southern facade.

Color shading and color screens of the windows will be pulled over for smaller groups. At the same time slide doors separate rooms connected together in their group. Place for sucklings is in the upper floor of the two groups. Two small kitchens are in the recessed niche in the wall, such as islands, divide the larger area. Tower room, outside corridor, terraces and balconies, with various facilities to make full use of this class.

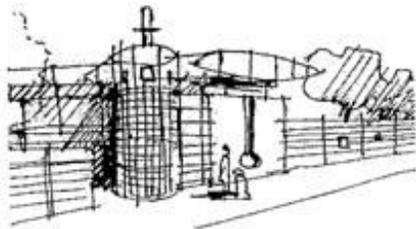


Figure 7 - Sketch of Frankfurt Sashnhausen kindergarten

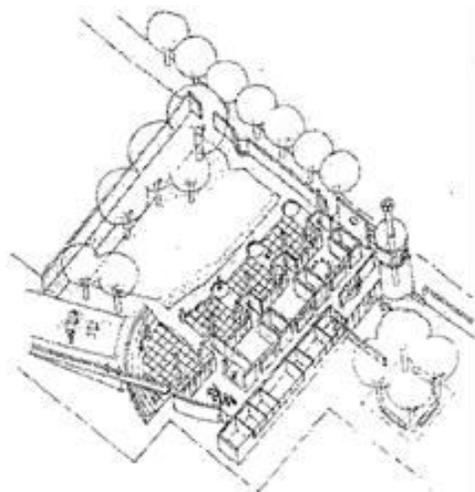


Figure 8 - Sketch of Frankfurt Sashnhausen kindergarten

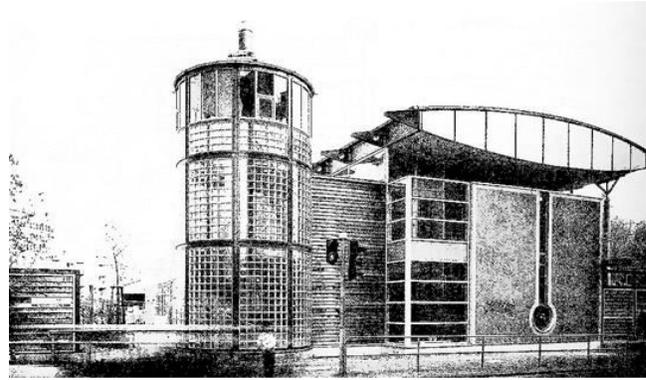


Figure 9 - Image of Frankfurt Sashnhausen kindergarten

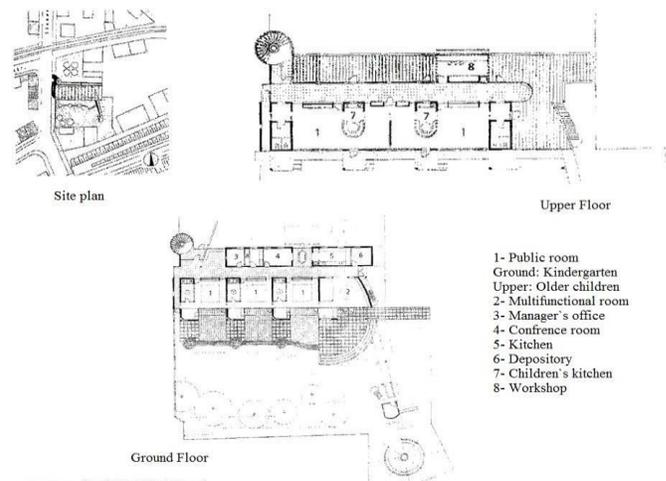


Figure 10 - Plan of Frankfurt Sashnhausen kindergarten

In addition, shown a series of images with building individual elements to children and asked how these images appear and what do you remember?

Children's answer, were confirmed the theory of designers. This theory forms the basis of the indicator architecture designed to motivate children to imagine, even (or especially) when architects eliminate defined anything important (eg ships, palaces, etc.) are removed.

Architectural elements + Child's dependence  
 (Children's opinions):

- 1- It is similar to a fish, head and eye, such as the boat, but without paddle.
- 2- It is like palaces tower with a spiral staircase into tales like Sleeping Beauty.
- 3- It is a bottle.
- 4- It is a foot tube stair way, like a rocket.
- 5- It is a window like a spoon.
- 6- It is a building like a villa, like a snail.
- 7- It is a feet of a duck or a swan or so.
- 8- It is such as a remote controller and antenna.
- 9- It has holes like eyes, I think like buildings brick, like the cheese has holes.

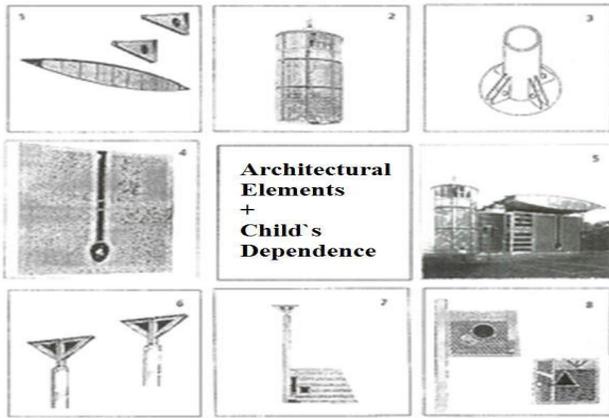


Figure 11 - Elements of segregated design for Frankfurt Sashsnhausen kindergarten



Figure 12 - Images of Frankfurt Sashsnhausen kindergarten

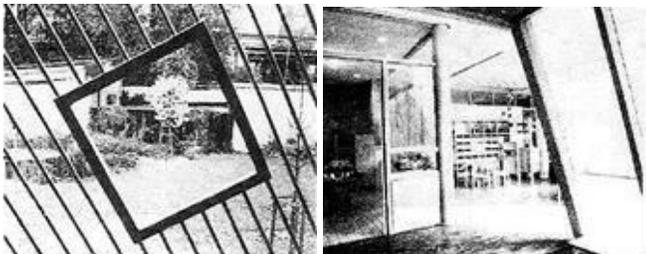


Figure 13 - Images of Frankfurt Sashsnhausen kindergarten

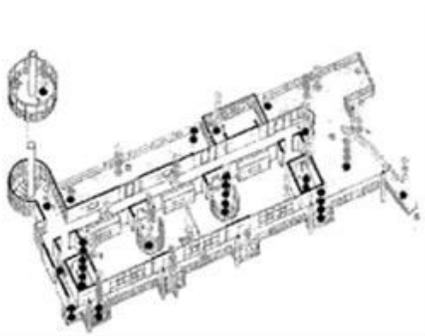


Figure 14 - Plan of Frankfurt Sashsnhausen kindergarten

### III. Results and Tables:

The results can be classified in two groups:

- A- Qualitative performance.
- B- Quality design.

#### A- Qualitative performance:

Including specification of the man-made environment a special responsibility in the community and work with children's need.

#### 1- Environment with enough space:

Kids need some rooms, especially for high mobility where their favorite activities, such as tumble around with the roar of running, jumping and seeing each other. It is the final indicator of the quantity of performance, if the children have large space for movement.

#### Public rooms:

The central space like the entrance area, the main courtyard - Public Room is extended. They are meeting spaces and facilities for the proposed joint activities and we would like to take smaller and larger. Action games, music, potlatch, and invite guests.

#### Small rooms with doors:

It is part of the children's every day that must communicate with each other and are sometimes to be alone, so kids like to have some rooms to do it, do not want to be silent as to do not disturb their calmness together and are comfortable for sleeping and focusing.

#### Niche, corner, bump:

Cozy corner, both small and big, kids love to go there and be attracted like a magnet. Places that are cozy, security, intimacy, and accidents. You can hide in it and crumpled it up and whisper to each other and find out about plans (programs) and think about other things.

#### 2- Steps:

You do many things with stairs, at the bottom of the stairs or sit, go upwards, jump, go back and hide under them, there are also fences. Each of us sit on the stairs. You can slip down from the railing.

#### Towers, tree houses, and places above:

Higher and higher, a special way of education and experience you have gained and happiness.

#### 3- Elements and structure of the house:

Floor and walls and shelters and pillars and pipes, what is such the behavior of children with structural elements? How come along with this? Children simply make elements according to their will and often run into them.

#### Added elements:

Doors, windows, stairs, corridors, power switches, washbasins and all the practical things. Children love to use their own, without the help of adults. The size of these elements must be suitable and worthy of little kids and conditions have to be such that children are able to use it lonely.

#### Children's furniture:

Furniture such as desks, chairs, benches, and drawer are not just practical objects but also toys for children. Kids want to build and play them consecutively crawl out of the furniture tunnel and older children can open and organize furniture and move them to the press. It is possible that they do. If furniture are bulky and heavy, they can not be used in the game.

#### B- Quality design:

The factor that made of human life, due to the fact that they imagined it likely and how they feel.

#### House facades:

Undoubtedly, the facade of the house is a guiding force specifically for kids. It is noteworthy that the architectural imagination for all the children to amaze and enhance the detectability of kids. If the facade of the house is suitable for children's imagination, it is like a scientific Castle - imagination among the trees.

Outstanding elements of the building with the specific details of decorations and artwork, all signs are symbolic of understanding and awareness and diagnosis. They feel provoked and columns to associate with their homes. Kids are watching these things with pride and joy.

#### Inviting inputs:

Gates, at the entrance where design that children accept.

#### Familiar forms:

They represent the lines between inside and outside, and a children's awareness of the junction threshold, making them home guide as a second home as well.

#### Lights:

Where with much lights, natural light and it has a clear positive effect on the children. They are very friendly and happy.

#### Rest (Comfort):

This is cozy, the often heard and kids also love it. What makes a cozy place makes it a combination of coordination forms that fascinate the kids and improve original senses, such as security, convenience and satisfaction in them.

#### Happy colors:

Children's bright colors are magnificent. Dark and pale colors are not interesting, so when it comes to color, kids prefer a mix of vivid colors and happy.

#### IV. Conclusion:

Contrary to public perceptions of the lack of profitable investment in kindergartens, such investment means educating creative, purposeful and conscious, the future of every nation and are inhibiting many social problems. In preschool education, parents and teachers identify potential growth and development of children and recognise such capability, intelligence and mental behaviors, formed and proper guidance

children's experiences lead to mental characteristics that develop their personality.

#### References:

- i. *Relationship between quality of attachment between a mother and her child's development of social skills, Kadivar Parvin, Javadi Mohammad Jafar, Ghadami Mahboobeh. Journal: Psychological Research, 2011, Volume 3, Number 12.*
- ii. *Effect of teaching children to child health information third-grade girls, Najar Lashgari Sahar, Rahimaghaee Flora, Dehghan Nayeri Nahid. Journal: Modern Care, 2014, Volume 10, Number 2, from page 132 to page 140.*
- iii. *Comparison of children and the needs of children from the perspective of children and parents in Isfahan, Moshtaghi Marzieh, Allameh Seyed Farid, Aghaei Asghar. Journal: Thinking and children, 2011, Volume 2, Issue 2 (4), from page 59 to page 78.*
- iv. *Help child to child, new approaches in health education, Karim Zadeh Shirazi Kambiz, Heidarmia Alireza.*
- v. *Standardization of three factors: children, Father / Mother and Child Behavior Checklist Teacher, Yazdkhasti Fariba, Arizi Samani Seyed Hamidreza. Journal: Journal of Psychiatry and clinical psychology (thinking and behavior), 2011, Volume 17, Issue 1 (64), from page 60 to page 70.*
- vi. *School Health, Noori MR. 2st ed. Mashhad: Vaghefi; 2003. [Persian]*
- vii. *Effectiveness of a Didactic and Practical Oral Health Education Program among Primary School Children, Eslamipoor F, Asgari E. Journal of Isfahan Dental School. 2007; 3 (2): 58-64. [Persian]*
- viii. *School Health, Helmsersht P, Delpisheh E. Tehran: Chehr; 1998. [Persian]*
- ix. *Architecture for children, Walter Kroner, Karl Kramer Veriag Stuttgart and Zurich.*
- x. *Design of child museum with approach of developing a lively childish space from viewpoint of comparative studies, Gheisari Dehsheikhi Amineh, Larry Baghal Kianoosh. IJBPAS, April, 2015, 4(4): 1801-1814.*
- xi. *Thesis of a bachelor's degree in architecture engineering, Borha Poone, Asrar University, Mashhad, Iran.*
- xii. *Design of multi-functional building for children in order to improve social interactions (Case Study: Design of building in city of Mashhad), Thesis of a master's degree in architecture engineering, Seyed Alireza Hosseini Panah. Department of Architecture, Khorasan e Razavi Science and Research Branch, Islamic Azad University, Neyshabur, Iran. Department of Architecture, Neyshabur Branch, Islamic Azad University, Neyshabur, Iran.*