The Smart Residential Complex Effect on Personality Formation of Children

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Abstract

The interaction between human beings and the environment has been a question of all times; however, the Industrial Revolution has begun to change its way. It can be seen that the human beings were a part of their environment in the past, but now with the advancement of knowledge and technology, the man can dominate in their environment. But today, the man's needs should be well known about the interaction with the natural environment and with respect to the position of the residential complexes in the modern society, these buildings are designed to create the psychological comfort and the formation of the personality. The authors of this paper believe the mentioned event will be happening in the future generation of the buildings. These buildings will be equipped with smart automation system for all their activities. This research conducted by grounded theories about the explanation of the smart residential complexes equipped with the BMS, which can be effective for shaping the managerial character of the children in their future.

Keywords: Smart residential complex, Building automation, BMS, Environmental psychology, Child behavior, Management.

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Introduction

The childhood is the most important period of human flourishing and the most basic foundation for providing the health in the later stages of the life in terms of physical, psychological and personality. Meanwhile, one of the most important affecting factors is the environmental factor on the full development of children growing up. The experiences that a child learns from its environment, its communication and interaction with the environment and the received feedbacks and effects of the environment can impact on the child's development and education.

Given the complexity of societies and appearing of the mental and behavior disorders among children, the requirement of holistic learning process is felt more than ever and also to address the correct strategies for strengthening and flourishing this phenomenon. Therefore, if we can correctly respond to the needs and developmental areas of the children during this period, they would have more health and strength for thinking and have better emotional and social skills (Zarei et al., 2012). In order to explain the exact relationship between the managerial character of the children in the future and the environment, it is necessary to answer these questions: What are the human needs? What are the capabilities of the environment and in what levels have the power to create the infrastructures to meet the needs and wills of the children and how children can interact with the environment? Therefore, the main issue of this study has been considered to understand the needs of the human and capabilities of the environment in response to them. If the designed environment were such a way that can meet the mental expectations of the child, the child's sense of belonging to the environment would be more and that environment become a place for children. To access the mental health in children requires the creation of suitable places for their childhood (Moini, Jalali, 2015). Thus, even though some individual characteristics have the genetic foundation in the person, but their manifestation dependents on the environmental conditions. The conducted studies in the different cultures suggest that the lack of environmental stimuli and the lack of the facilities of the intuitive, physical and mental experiences have the undesired impact on the children's psychosocial and social growth. In addition, the environmental enrichment through increasing the social, cognitive and emotional stimuli lead to decrease the retardation of growth arising from the environmental inadequacy.

Research Methodology

The present research method is analytical-descriptive according to its practical purpose. The research strategy is the qualitative approach of grounded theory that in addition of integrating

the research with the qualitative study and the analytical-descriptive research method, its data collection tool includes the library study and the review of the written resources. This study has attempted to gain some modern studies for obtaining a more correct understanding about the impact of residential building on the children's character by using library studies and access to the existing documents.

Hypotheses of the Research:

To respond to the main and the sub questions about the structure of the research, it is appropriate to explain the following hypotheses.

H1: The residential complex has a smart management system that can affect the managerial character of the child.

H2: The present of the child from its birth in the smart building can help him/her for time management in the future.

H3: It is possible to design the residential spaces to comply with the expectations of children and in a reasonable relationship with children and their condition and these spaces can respond to their needs in the managerial future, the spaces in addition of having attraction, it leads to create a situation for children to be familiar with their culture and identity. Children in this residential complex will have comfort, safety and security and they play and learn with convenience.

Research Questions

To promote the interaction of the children with the place in the outdoors of the residential complexes, the following questions can be outlined:

1. To what extent can influence the smart residential complex on the relationship of the managerial character of the children in the future?

2. Which technology of the smart building can impact on the educational quality of the children's personality?

3. What behaviors can be trained by the smart residential complex during the childhood?

4. What environmental components can provide the possibility for the improvement in the managerial character of the children in the future at the outdoor of the residential complexes?

5. Are the objective (skeletal) and subjective (non- skeletal) environmental components can improve together the interaction of the managerial character of the children in the future with the place at the outdoor of the residential complexes?

The necessity of conducting the research

In the contemporary communities, the home, school and urban spaces are counted as important and social unites for the education and socialization of the children. The residential open space should meet the children's needs and activities with their various style life and wills of them. Children experience for the first time, the public space in the residential open space and interact with their peers and other adults. With this pre-assumption, the social interactions in the open space of the residential complexes will be the effective and efficient fields for providing the possibility of children playing and activities for the development and formation of their personality and increasing the abilities and capabilities of them (Ghare-Begloo, Eynifar and Izadi, 2013). With the development of the human societies and change of the people living and residing way, the attention of the architects, designers and planners have increased the quality of the built spaces and the environment and the role of design find more important as a tool to shape the life environment and responding to the needs and expectations of the human beings and many studies have conducted about how the interplay of the built environment and spaces on the mind and behavior of the man. The conducted researches show that the environment in addition of having the skeletal elements, it includes the messages, meanings and codes that people understand and decrypt them based on the roles, expectations and intentions and other factors. The general sense that is created in a person after the perceptions and judgments about a particular environment is an important factor for generating the harmony between the person and the environment and lead to a better utilization of the environment, user satisfaction and ultimately, their sense of belonging to the environment and the continuation of the presents in it (Rappaport, 2005).

Definitions:

Residential complex

Housing is one of the essential factors for the balance and stabilization of the human society. Housing is as the keeper of a family and its relationships between members of it. Having an appropriate housing is the basic rights of the human beings like other human needs. The housing issue is so complex that it seems unlikely to provide a comprehensive definition of it. Housing as a physical location and as a shelter is the basic need of the human being that provides some of the basic needs of any person and his/her family. According to the human

needs for keeping more security and ability for creating the security through the communal force ratio of the individual forces, the humans prefer to live as a group as far as it does not threaten his/her privacy.

General concepts related to the needs and the general goals of the housing:

1. Shelter: The social right of every person and every family is having a hygienic shelter that it is the first understanding of the housing.
2. Housing and family: The residential unit is the main axis of every family, which should include adequate spaces for eating, sleeping, and other required basic activities.
3. The economic concept: The housing in the economic stability and well-being of each family has the basic role. Because housing has an important economic concept as a type of investment and it is considered as a kind of saving.
4. Participation: One of the effects of the housing is the family participation in the larger community and to share it in the combination with other families and the social relationship is one of the enduring aspects of the urban life.
5. Residential environment: The need to feel the enjoyment of the residential environment and having the health facilities and services and so on, have the essential role in the social life of the inhabitants.
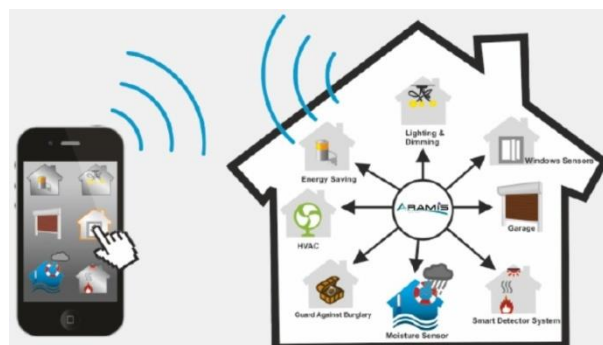
What is the smart building?

It can be said by a simple definition that a smart building refers to a building which has been equipped by the infrastructures of the modern information and communication system in a way that this system can enable a building to use a smart central system (Smart Home Hub) for registering any changes moment-to-moment and coordinate and adapt itself with the new conditions and its surroundings. According to a broader definition, a smart building is known as the combination of the innovations based on the technology in a smart managerial form and in order to return the investment quickly (Rezai, Nahavandi, Zende-Shahvar, 2013). Today, the buildings are a type of technology. They adapt themselves to the technology and take advantage of it. A smart building is one that increases the efficiency of its inhabitants and provides an effective management based on the specific requirements and with the lowest cost (Afshari Basir, et al., 2011). In 1921, an architect named "Chloe Bereriz" decided to build a smart home. This was the first time that the man thinks such an idea. He was carried out his decision, but his project not only failed, it also was considered as a major scandal in the science and technology. Because instead of creating the welfare of its inhabitants, the building generated more trouble than the ordinary houses for them, so that no family could not live in it and the original idea for building the smart homes was forgotten for a long time. But the

man is always in the dream of a smart home in his mind. By over time and technological progress, the people approach tends gradually to the optimal use of facilities and reducing the everyday activities, so that, millions of people use the smart home. The experts believe that in the next few years, the number of the smart homes will reach to a billion buildings around the world and they will be in a direct contact with each other and many people will be needless to do the repeating daily tasks (Aramis Smart Management Company, 2017).

Smart Building Management System (BMS):

Smart Building Management System refers to a set of hardware and software that were installed for integrated monitoring and control of the critical and vital parts into the building. The task of the system is the continual monitoring of the various parts of the building and to apply the commands to them in a way that the application of the different components of the building can interact with each other at the optimum condition with the purpose of reducing the unwanted consumption and allocation of energy resources for only the spaces during operation (Industrial designer, 2010). There is not the limitation of the space and the time to manage and control of the home in the smart building and you can take the report of the existing facilities within the home and be informed of their status at any place and any time and make any desired changes in their condition. The system allows you the performance a series of pre-stored commands with only a single command (Behvarzan Smart Management Company, 2017).
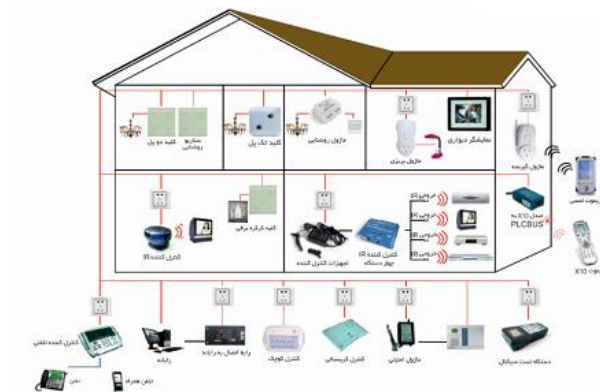

Figure 1: The relationship between the components of the smart house

Smart housing is a home that with the installation of the smart devices, the electronic and mechanical facilities are controllable and manageable. The installation of the smart devices can manage and control the facilities such as lighting, heating and cooling systems, audio and

video systems, curtains and canopies, fountains, security and fire alarm systems, watering plants and others and they are controlled by the two ways:

1. Smart and automatic control of devices with the help of the collecting information from the sensors (temperature, humidity, presence, pressure, light, time, etc.) and their processes by the smart programs and the activation of the defined electric devices automatically.

2. Providing the controls such as the smart keys, the central remote controls, touch screens, web screens, phone, SMS, voice commands and etc.

Figure 2: A view of how the smart home system application

Some of the advantages of the smart systems in the buildings

1- Saving the energy and time consumption 2- Building management during the accidents 3- Increasing the comfort level of the life 4- Reducing the costs of the repair and maintenance 5- Easy to use of the smart equipment 6- Control smart system with telecommunications 7- Supplying the building safety and health environment 8- Creating a flexible and extensible automation without restrictions on the building 9- Reducing the manpower role in the control of the equipment and thereby, reducing the system error 10- Beautification and decoration of the indoor spaces with the beautiful equipment for different tastes.

The use of the smart management systems of the building give us the control ability such as: light, fire extinguishing, communications and in particular the energy consumption of the building. This control is possible remotely and the moment-to-moment, and according to the reducing costs of the utilization, including the water, electricity, gas and other fuel, it will be a proper system in the long term, because it is an appropriate model to optimize the energy consumption in the building. In addition to using the controller and smart devices, it can be considered some ways in the design phase such as the appropriate use of natural light energy,

setting the emitted sunlight, proper orientation of the building and generally creating the human comfort (Rezai et al., 2013).

Many actions can be carried out by the BSM that the residents of a building do it habitually which lead to save the time and reduction of the manpower cost as well as reducing the energy consumption and energy costs, decreasing the errors and increasing the effectiveness of the system. Employing a variety of inside and outside sensors or with the use of a single system, you can control all welfare and security services at any moment and use them in order to achieve ideal situations. For this purpose, it is required to the specific hardware and software for collecting the environmental data and transferring them to the central system for building control and management process (Hariri, 2009). The energy consumption is considerably reduced in the smart buildings using the automation systems of lighting, control of the heating and cooling system, CCTV and door control, control of emergency situations such as fires, earthquakes and many other smart controls. The smart building is one that is equipped with a strong communication structure which can react continuingly to the different situations in the environment and adapts itself to them and also allows the residents of the building to use the existing recourses efficiency and lead to increase their security and comfort (Morovati et al., 2014).
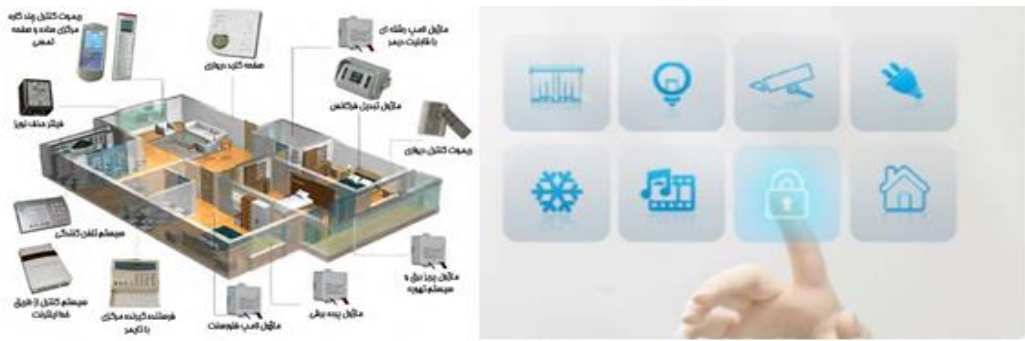
The saving of the energy and time consuming, building management during accruing any accident, increasing the comfort and convenience of the life, reducing the maintenance and repair cost, easy use of the smart devices, control and the telecommunications of the smart system, providing the building safety and environmental health, increasing the shelf life of the equipment and reducing the depreciation, optimal solution to add the capital to assets of the persons, creating a flexible and extensible automation without restrictions in the building, reducing the role of manpower for the control of the equipment and thereby reducing the error of the control system, homogeneous beautification and decoration of the indoors spaces with the nice equipment for different tastes, creating separation system of the utilization and the costs of the water, electricity and gas for the residents building users, the optimal control of the facilities function tailored to the structure and operation schedule in different parts of the building, the capability of the smart planning and correction of the application tailored to the operational and climatic by the system (smart system), determining the coefficients and the control conditions based on modeling the dynamic behavior of the building and precise measurement of factors such as the radiation and lightening conditions in the building, optimal control of the current costs and optimize with the help of the integrated control system of the lighting and facilities tailored to presence and needs of the people in the various sectors based on the modern standards, centralized control of tools with the use of security

facilities such as the occupancy sensors, cameras, etc and gaining the advantage of facilities such as controllable locks of the security will reach to their maximum potential. Due to the use of the unique features of building management through the security systems, the possibility of abuse has been minimized and there is not the ability for the reproduction or disclosure of the entering passwords at all. Among the systems that are considered in the smart service area, the following items can be mentioned.

- Turning on and off the lights based on the amount of the light in the environment,

- Turning on and off the lights based on the defined scenarios,

- Dimming the lights,

- Controlling the electric curtains,

- Controlling all heating and cooling systems,

- Controlling the plugs,

- Fire alarm system,

- Gas leak detection system,

- Carbon monoxide alarm and other toxic gas system,

- Smart locking system,

- Automatic parking control systems,

- Video surveillance system,

- Automatic irrigation system,

- Smart lighting systems in the public spaces,

- Controlling the devices by remote control,

- Controlling the devices via the phone and SMS,

- Controlling the devices via smart keys,

- Controlling the devices via the touch screen monitors,

- Controlling the devices via mobile phones under Android and Macintosh OS,

- Planning possibility of the various scenarios for the system component application (scenarios such as: incoming, outgoing, sleep, study, simulator of the presence at home, guest arrivals, parties, etc.),

The performance possibility of each scenario by pressing a key or sending SMS,

Figure 3: Image of the touch remote control (Right Side)

Who is the Child?

All children of the world have the same growth pattern from the beginning of life and during their growing up as well as they are the symbols of the different types of the human societies and cultures. The children during their growing up learn gradually the human behavior, thoughts, and ideas and will be familiar with their own social class as well as social and cultural identity (Mirhadi, 2003). Children have a very influential role in the future planning in every society. Actually, these children will be active in the social activities arena in the future very soon and they will be as the main citizens of the community who should manage their society. In addition, the children are considered as the communication factor between the past and future generations and have the important role in the transmission of traditions, cultures and identity of a society (Maryam Azmodeh, 2009). Feeling a place in any environment depends on how the relationship between man and that environment and influences on the activities and creating the specific meanings as well as on his/her feelings and behavior. The childhood has an important role in the future of the humans and it is a unique opportunity that should not be lost (Sarah Jameiy, Nazanin Balesh Zar).

Behavior psychology of the child

The learning opportunities in the early period of the child life have an important role in bringing up its later abilities. Because the most intelligence growth of the children happens in the first four years of their life, so that this growth is equal to the intelligence growth in the next 13 years of their life. In the childhood, this little man can understand everything and any period of its life is linked to another period. The physical growth of the children has always an upward trend that sometimes this growth is faster and sometimes slower, but it should be known that the mental and moral development of the child has not always an evolutionary

process. Children's learning is going on constantly any time and any place and the most of their learning is carried out by their activities and skills. The step of the child's experience and its familiarity with the learning environment is between the ages of 6 years until the beginning of adolescence. In this period, the intellectual, social and emotional development aspects of the children are still in the progress and their imaginations become gradually more logical (Afroz, 2010).

Affective factors in creation of the child's personality

According to Benjamin Bloom's theory, about 50 percent of the intelligence growth of a child occurs from its birth to 4 years old, 30% of this growth, between 4 and 8 years old, and only 20% from 8 to 17 years old. Bloom emphasized on the effects of living in a rich environment or a divested environment. According to a research, if a child lives in a rich environment in the first years of its life, its cerebral cortex grows and its longitudinal fissures of the cerebrum get more and the glial cells increase. These cells cause the enzyme secretion of the memory in the cerebrum, as a result the learning are strengthened and facilitated by the brain (Osareh, 2003). So, one of the crucial tasks of any communities is to provide the essential attitudes, knowledge and skills for children to revise and change the patterns and the current activity to ensure the future stability of them. If the forming the personality has the hereditary roots, but definitely it is influenced by many factors that are created by the environment. The most important of these factors include:

Physical condition: It is a hereditary factor that influences the personality, fitness, health, physical defects, senses irritability, manner of the endocrines and nervous function. All of the mentioned conditions affect the person's mental state that related to the person's characters.

Feel and accountability: It is recommended to the parents that they should give some responsibilities to the children tailored to their abilities and these children will be able to achieve their real personality and self confidence to grow at a young age. On the one hand, teens should have the responsibility to own themselves, meaning they should hold and protect themselves and on the other hand, they should not be dependent on others in their social tasks as well.

Self-scrutiny and confidence feel: Self-scrutiny and understanding ability and talents are one of the most important factors of personality. Most of the intelligence growth of the children accrues at the first 4 years of their life, so that this growth is equal to the development of the intelligence growth in their next 13 years of their life. It should also be considered that the spiritual matters of the children have a kind of alternation, meaning that, in some ages, a child

has more consistency and balance with itself and the people, and in some periods it is inherently unhappy and dissatisfied and the two manners occur usually in the periodic form and one after another (Molly and Russell, 1985).

Environmental Psychology

Environmental Psychology can be considered as the human psychology and its environment. So far, the different definitions have been conducted by researchers in this field. Some of them believe that the environmental psychology is a branch of the psychology that studies and analyzes the interactions, oppositeness, experiences, human reactions with the various aspects of the social-physical environment. Some others believe that the environmental psychology is an area of the psychology which outlines to provide a systematic relationship between the person and environment. However, it can be said the environmental psychology studies the common relations between the physical environment and the human behavior and experience. In general, in the environmental psychology, the emphasis has always been on how the behave, emotions and the health feel the human impact on the physical environment (Jalili, 2010, 29).

Perceptual and cognitive factors as well as meanings and concept factors are decoded by the person after the understanding place and they are the creative factors of the sense of place. "Fritz Steel" believes that the sense of place of any environment depends on its relation with the environment:
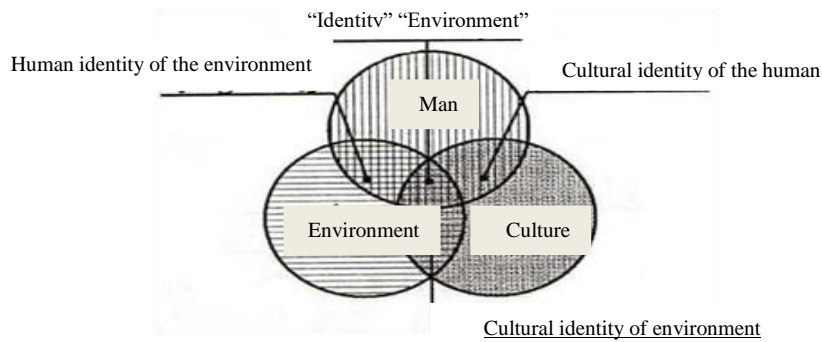
- The relation between man and interactive place means that humans give the positive or negative things to the environment and then take them from it, so people's activity influence on the impact quality of the environment for.
- Imagination of the place is not just physical image, but is also the mental and interactive image and the sense of place is created as an experience that is a combination of a place, behavior and what the human gives to it. In other words, some of things that the man is created in the place cannot be created without him and independent of him.
- Some places have very strong spirit of the place that influence on the different people with a similar way.

The design of the skeletal environment with the desired quality leads to the definition of the vitality in the environment. An environment consists of three intertwined dominations, skeleton, activities and imaginations and creating alive environment carried out by the three general components (Hossein Zadeh, Soltan Zadeh, 2013).

The environmental psychology emphasizes that the perception, cognition and environmental conditions were related and intertwined with each other and this intertwining is revealed especially when we separate the perception of objects from the environmental perception. The amount of the received information and awareness of the environment depends on the variation and degree of the contrast of the obtained sensory information and the way of the separation them from each other, meaning, it depends on the way of the patterns tracing. This work is possible by the help of all the senses and with different degrees although all of them cannot be used directly in the thought and reasoning together. It can be shortly said that the environmental, ecological perception theory emphasizes that the main basis of the human perceptual system is the received information from the environment by the five senses as well as the directional systems and the main movement in the environment. In the other words, the environmental and ecological perception thinks that the all of the potential use of the possible meanings of an object is understandable by the non-visual information structure and are receivable by other perceptual systems. In most cases, the person should know and learn that what it which he/she should look for it. Actually, the understanding of the meaning is based on the mental schemas. According to the environmental and ecological perception model, the meaning and conception what is felt and understood in the cultural- social norms has been learned earlier. In other words the features of the built environment are understood and felt with the five senses and according to the directional system, but the meanings have to be learned (Shahcheraghi, 2009: 75).

Relationship between the human and the environment and their interaction with each other

Among the different types of human interaction, the human-environment interaction has a special complex than other human interactions. In the other words, in the human-environment interaction, the message recipients are absent for the sender (e.g. designer), and the sender is absent for the recipients. In this interaction, the communicator communicates with the message recipients only through of an image that he/she has in the mind by shaping the built environment, that this issue is particularly complicated by the interactions. Also, in this type of the interaction, the people and addressees react to the environment through the image that they have in their mind due to the absence of the message sender. In fact, in the human interactions, the environment is the connecting factor (both the message and the means) (Daneshpur, 2010: 109).

Chart 1. The relationship between the human, culture and the environment and their ratio to the identity

We're going to address that what is the impact of the environment on the human; there are three basic approaches in this regard. These approaches include:

3.2.1. Probabilism Approach

This approach believes that, while people can show different behavior in an environment, the designer features and built environment factors could increase the probability of the certain behaviors. Therefore, the environment supports a certain behavior and increases the probability of its manifestation, but it is not the determinant of a particular behavior in the context. This issue is also raised in the perceptual area and the mentality reception. It is probable that the meanings are hidden in the environment, but the perception and reception of these meanings are uncertain. The environment provides the possibility of this perception, but ultimately, according to the personal potential and the socio-cultural backgrounds, the probability of the specific meanings perception is higher among the users. Therefore, the environment does not determine the behavior, but it provides merely the possibility of its manifestation and the cultural features of the people increases also the manifestation of the specific behaviors than other behaviors (Reza Zadeh, 2001: 8-9).

3.2.2. Determinism approach:

This approach was raised in the early in this twentieth century. Both our modern architecture as well as the traditional urbanism that were shaped with the beginning of this century is also affected to a large extent from this approach. In this approach, the environment has a determinant role in the behavior, perception and feeling of the human being. Also in this approach, each stimulus creates a specific response and the role of the knowledge and the individual are ignored in the creation of the response. According to this approach, the modern

architecture dictates the human behavior and the traditional urbanism determines the appropriate location the various types of the use and expects that the people act according to the skeletal scheme and the prediction of the designers in the environment.

3.2.3. Possibilism Approach:

This approach considers the physical environment as a bed that creates possibilities and limits for behavior. But the environment is not a determinant of behavior, but people select the specific behaviors on the basis of other criteria. In other words, the environment provides mere the manifestation possibility of some behaviors or creates some restrictions for the manifestation of some other behavior, but finally, the cultural norms determine the behavior of people in the environment.

Definition of Management:

Management is the process of the effective and efficient use of the human and material resources in the planning, organizing and mobilizing of the resource and facilities as well as guiding and controlling them to achieve organizational aims are accepted based on the value system. Part of the management can be learned through the management training and the other part should be learned during the work. In fact, the management science is that part which is educated. And the part that leads to apply the experiences in a variety of conditions called the management art. In other words, "the nature of the science is wisdom and the art of accomplishing."

If the following criteria are considered in a situation, it can be said that the management is applied to this situation:

1. The organized and regularly activities,

2. Objectives: Second criterion of the management is considered as the teaming activities that are regularly guided to achieve the objectives. The objective can be explicit and clear or non-explicit and unclear.

3. The relationships between resources: Third criterion is considered that the regular activities for the target are taken place through the certain relations that exist between available resources.

4. Conducting through the others: Fourth criterion is considered that the realization of the objectives is done by other people working.

5. Decision-making: The last criterion of the management is to participate actively in the decision-making. It means the evaluation and selection of the solutions in the complicated situations that are often associated with the risk and insecurity. The decision-making includes the all physical, financial and human aspects (Alvani, 2015).

How can be an effective and successful manager?

The successful and effective management is to accomplish the organizational objectives or something more than it. William James conducted a study about the motivation and came to the conclusion that hourly employees could keep their jobs with about 20 to 30 percent of their ability to work and however they are not fired; this study also showed that if employees have more motivation, they work with about 80 to 90 percent of their ability. A manager is a successful who can provide the minimal acceptable of their employees working with the use of the managerial facilities such as reprimand, payroll deduction and so on, but an effective manager is one who can use about 80 to 90 percent the abilities of their employees. To be successful and effective, having some certain innate and adaptive ability is necessary. An effective manager requires the technical, humanitarian, conceptual ability as well as designing and solving problems capability. A successful manager has the certain attitudes and motivations and the organizational rewards (salary increment, promotion, etc.) and the organizational atmosphere affects his motivation. Sometimes, the unforeseen events can create the success for the managers, because the person's ability cannot always lead to the success for them. Evolution of the success degree and effectiveness of each director is carried out, according to the organizational vision and values (Rezaeian, 2016).

Management functions

The purpose of the functions is to indicate of a basic and important activity that has an absolute necessity to accomplish the goals.

Henry Fayvel was the first person who defined the management process with the division the tasks and functions. He recognized the five basic tasks in the management as follows:

1. Planning: the forecasting and provision for future operations,

2. Organizing: the combination and allocation of other resources and persons to do the takes,

3. Integrating: integrating and union of all the people doing the work.

4. Coordinating: the effort to join and unite all activities,

5. Controlling: the investigation that whether all of the tasks are done according to the regulations and the agenda or not (Rezaeian, 2016).
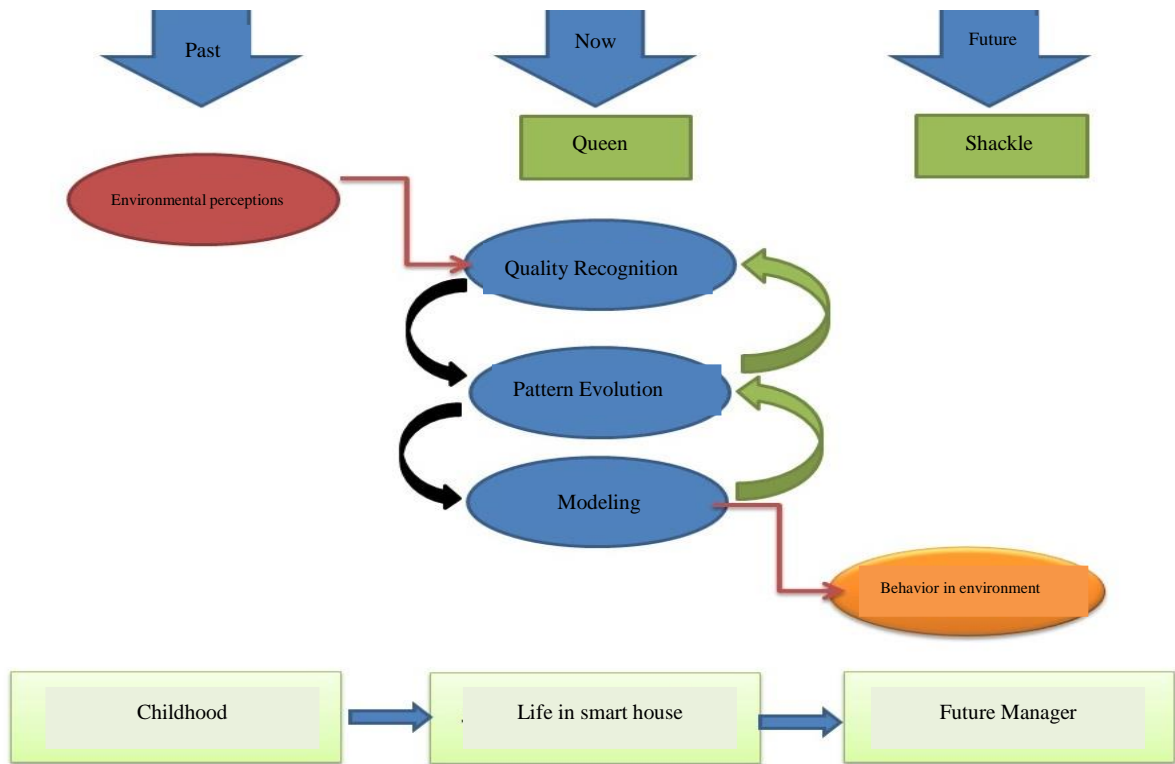
Designing approaches for children

The following points should be considered according to the interests of the child:

1. Children like the huge space for vibrant activity and like the little space for retreat.

2. Children need the spaces for imaginative plays that can lead to their social development.

3. It is better that the size of the elements such as doors, windows and stairs is designed to fit the body size of the children to feel the independence in their affairs.

4. Children need the adventurous playgrounds for their curious and active nature, because they like the destruction and construction.

5. Children can learn gentleness, participation and caring with considering some places for keeping the pets.

Providing model

Architecture is a trainer and it is the first trainer after the parents. Children learn a lot through the built forms in their surroundings. The sensory reception of children from their surrounding spaces, structures and buildings must be such a way that they feel comfort, tranquility without fear. Darkness and the disproportionate forms frighten them more than anything else. Spaces with the bright and colorful and sometimes colors with uncertain forms (as a mode is created by the watercolor in a painting) can create the imaginary and dreamy feeling in the child's mind. The children have to distinguish themselves from the surrounding area and at the same time they have to analyze their environs and children carry out these cases by the recognizing their surrounding objects (Moini and Jalali, 2015).

Piaget simulates the child's psyche as a plant that on the one hand it is affected by the external environment and on the other hand continues to grow by the internal forces. He emphasizes with an approach on the activity of the child's psyche and it is the biological interaction patterns that arise from the effectiveness and influence. One of the famous theories of Jean Piaget is the cognitive development. He believes that the cognitive development of children dependent on their natural growth and such growing up has formed from various periods and stages and each stage is the complementary stage of its own pervious stage (Piaget, 2007).

Figure 4: Pattern of human being's behavior in the environment (Source: Authors)

Conclusion

According to the phenomenology regulations, the human beings can review again the perceptions and memories of their childhood and achieve to their quality of environment knowledge, and then create an organized pattern for themselves and use it as the guidance for the life in the future that the authors consider it as a tied relationship between the environment and human beings and with the forming their personality in the childhood, it becomes their behavior pattern and with more practice and placing in the environment, it becomes the shackle and causes to form the child's personality which leads to its manifestation of behavior in the environment and the community. That is why, which most of the psychologists believe that taking care of the child should be done when the child's personality has not been yet become to a behavior. This paper by the study of the grounded theories came to the conclusion that if a child spend his childhood in a smart house, it can identify the time management from the smart management of housing and makes a model for itself and could use it as behavior in the environment, particularly in his/her future for more successful acting in his managerial character. As it has been said in the study, if a child lives in an environment that all his needs are met in it, surely, its recognition of its life affects the intelligence and behavior growth process of him/her in the environment and the society.

References

Afroz, G. (2010). Discussions in the psychology and education of children and adolescents. *Islamic Culture Publications Office.* Tehran.

Afshari Basir, N. & Afshari Basir, R. (2010). *Smart Buildings, a Step toward New Technology in the Construction.* Second International Conference on Architecture and Structural Engineering, Tehran: Tehran University.

Alvani, M. (2015). General Management. *Ney Publishing,* edition 52. Tehran.

Aramis Smart Technology Development Co.

Azmodeh, M. (2009). *Garden-Museum Design of Children in the Shahrakeh Gharb in Tehran.* Thesis. Tehran: Tehran University.

Behvarzan Smart Technology Development Co.

Daneshpur, Syed Abdul Hadi. (2000). Recognition of identity concept in the public space of the city (the street). *Urbanism Doctoral Dissertation Planning, Faculty of Fine Arts.* Tehran: Tehran University.

Ghare Begloo Mino; Eynifar, Alireza & Izadi A. A. (2013). To promote children's interaction with the place of the outdoor spaces in the residential complexes (case study of the three types of the residential outdoor space in the Tabriz city). *The Journal of Fine Arts.* Architecture and Urbanism, Volume 18, Issue 2.

Hariri, R. (2009). The principles of energy efficiency in the industrial buildings, management period of energy. *The International Energy Research Institute of the Ministry of Oil.*

Hossein Zadeh, R. & Soltanzadeh, H. (2013). The flexibility of the environment and its impact on the behavior of orphans, *The National Conference of Humanistic Architecture and Urbanism.*

Jalili, M. (2010). Analytical review on the environment concept in the psychology literature of the of environment (Nature of the environment). *Manzar,* Issue 12.

Jameie, Sarah & Balesh Zar, N. (2015). *Examines the Impact of the Responsive Skeletal Environment Design for Children's Development and Their Social Relations From the Perspective of Environmental Psychology.* Dubai-UAE: International Conference on Science and Engineering.

Mir Hadi, Touran (2003). What is in the long run of the child? *The Internal Journal of the Child Book Council,* issue 41, Tehran: Space, Architecture.

Moini, Mahmoud & Jalali, A. (2015). *The Impact of Form and Color of the Environment in the Increase of Children's Creativity.* National Conference of the tourism culture and urban identity.

Molly, Russell Smart (1984). *Growth Psychology of Children and Adolescents,* translation: Seif, S., Tehran: Vahid Publication.

Moravati, A.; Bahari, T. & Firozeh Far, S. (2014). *The Investigation of the Optimizing Ways to Energy Consumption in Smart Buildings.* The Third International Conference on new approaches in Energy Conservation.

Osareh, A.R. (2013). Current functions of our education in religious training. *Researches Papers of the Religious Education Pathology Conference on Education*, vol. 2, Tehran: Mehrab Ghalam.

Piaget, Jean; Barbl, Inhilder & Tofigh Zinat (2006). *Child Psychology.* Tehran: Ney Publiction.

Rappaport, Amos (2005). *Meaning of the Built Environment, an Approach of the Nonverbal Communication.* Translation of Farah Habib. Tehran: Publication of the processing and urban planning Co.

Reza Zadeh, R. (2011). Perceptual-behavioral crisis in the urban area. *Municipal Magazine,* Issue 23.

Rezaeian, A. (2015). Principles of Management. *Publish of and Editing and Study Organization of Humanities Science Books of the Universities, (Samt),* Tehran: twenty-seventh edition.

Rezai, D.; Nahavandi, M. & Zendeh Shahvar, M. A. (2013). *Providing Solutions to Energy Conservation in Residential Building's Architecture and Investigate the Smart Systems.* The first national conference of architecture and sustainable urban space.

Sanati Tarah, M. (2010). Smart Building Management System. *Journal of Technology and Executive Director's Message.*

Shahcheraghi, A. (2009). Cognitive process analysis of the Persian garden environment, according to the theory of ecological psychology. *The Identity of the City,* Issue 5.

Zareie, Ahmad & Gholami Shiri, Hamid (2012). *The Role of Positivism Role in Enhancing Effective Serotonin to Create of the Emotion and Vitality Balance and Effective Strategies in Promoting Positive Thinking.* First period of happiness and joy Conference. Tehran.