

## **The impact of the internal design of the educational environment on the innovative skills of the child**

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### ▪ **Abstract:**

Childhood is one of the most important stages in a person's life, as it is considered the fertile environment in which the child can be affected by everything around him and this is shown through his behavior and actions within the surrounding environment, and many scientists have emphasized the importance of that age stage in developing the innovative process of the child. Creativity is a common characteristic of all children, and since today's children are the ones who will interact in the near future with the rapid technological change that we are accompanying, and they will be responsible for the development and progress of society. Therefore, an appropriate environment must be provided to develop their intellectual and innovative skills from an early age to advance society in the future.

### ▪ **Research problem :**

1. Neglecting the role of the internal design of the educational environment in developing the creative skills of the child.
2. The lack of the internal educational environment in Egypt of internal design determinants and standards that contribute to the development of the child's innovative skills

### ▪ **Research objectives:**

1. Reaching out to the importance of the internal design of the educational environment and its impact on developing the child's innovative skills
2. Identify the design determinants of the internal educational environment directed at the child

### ▪ **Importance of research:**

- Activating the role of the internal design of the educational environment for the child to contribute to the discovery and development of his innovative skills.

### ▪ **Research hypotheses:**

1. There is a strong relationship between interior design and building the child's personality and developing his innovative skills
2. Using the standards and determinants of the internal design of the child that help in providing an educational environment capable of developing the innovative skills of the child.

### ▪ Research methodology:

1- Inductive approach: through books, references and scientific messages that clarify the importance of innovation in the child's life and the role of interior design in creating a suitable environment for developing his innovative skills.

2- The analytical descriptive approach: through the analysis of an interior design work directed at the child that contributes to the development of his innovative skills.

### Key words:

innovation - child interior design - innovative skills

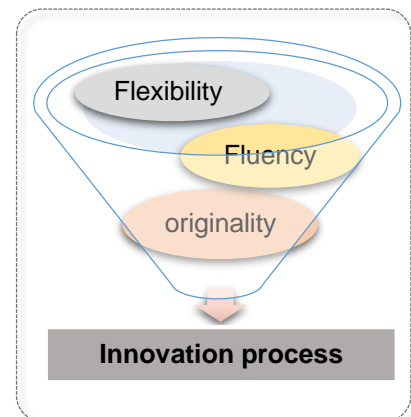
### ▪ Introduction:

Innovation is now the greatest hope for all segments of society, as it has become the solution or the basic requirement that achieves this progress and solves the problems facing society in general. Scientists have proven that innovation is the key to the success and failure of society, so innovators are the true national wealth and positive energy that drives the progress and prosperity of nations in all areas of life. Studies have proven that all individuals have some degree of innovative capabilities and creative performance that varies from person to person in proportions. It is uneven, but it appears and becomes clear when the necessary conditions are available for the development of those abilities, especially in children, as there is a close relationship between the development of innovative thinking in the child and between imagination and play of all kinds, stories and drama that affect the child and develop his innovative and creative skills.

There is no doubt that the internal design of the child's environment plays an important role in his life, as it is affected by everything that surrounds him and also affects his personality and reactions directly, and this is shown through his behavior and actions within the environmental vacuum residing within him, Hence, the role of the interior designer comes in an attempt to provide an internal environment for the child not only to achieve well-being and comfort for him, but also to contribute to the development of the child's educational thought and the development of his innovative capabilities.

## 1. Innovation

The word "innovation" is applied to every production that is characterized by the precedent and bringing about new. Everyone who creates something before others is inventive and has precedence in thought, and every new idea and its owner is an innovator. **Innovation can be defined** according to the innovative process as: the process that is characterized by its originality and ability to achieve, it searches for problems and then searches for appropriate connotations and develops hypotheses that are commensurate with solving those problems.



The scientist "Williams" explained that innovation has several basic aspects that it consists of and can be summarized in: "fluency - flexibility - originality."

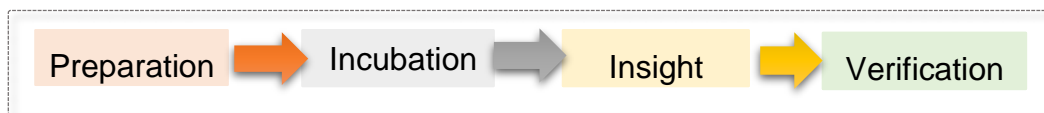
### 1.1.Children's innovation:

Scientists have unanimously agreed that innovation is a common characteristic of all children, as there are those who say that children are innovators by nature, and from here we can define innovation about children as:

It is the ability to produce a number of original and unusual ideas and a high degree of flexibility in response and development of ideas, activities, and innovation that most children have, but to varying degrees that differ from one child to another and from one environment to another, so children's innovation is considered a thinking with creative results and not Routine or stereotyped.

### 1.2.Stages of innovation:

Innovation is nothing but a mental process produced through the innovative thinking of individuals. Innovative thinking is a mental capacity produced through four stages, which are:



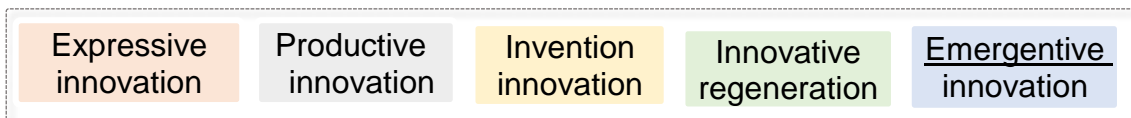
### 1.3. Child Innovation Development:

The development of the child's innovative capabilities is a very complex problem, as it cannot be separated or reduced from the overall process of raising the child and forming his integrated personality, and there are different methods and methods that can be used to develop innovation in the child, but certain conditions or standards must be available for this development to be achieved. These criteria are divided into two groups:

- General conditions related to society in general.
- Special circumstances related to the child's environment in which he resides, such as: "school, club, or home."

### 1.4.Levels of innovation:

A child's levels of innovation can be divided into five levels:



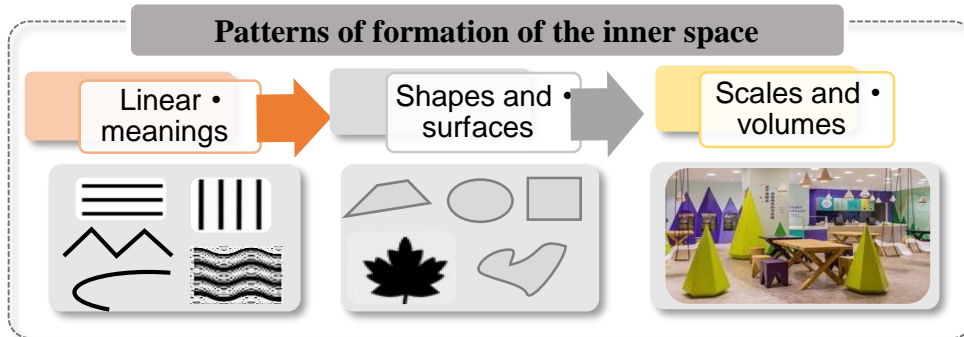
## 2. Components of the child's internal environment:

Many studies have divided or classified the elements of architectural spaces into three elements that we can extract in the educational spaces designated for the child to:

1. Fixed elements	Natural elements / Vacuum elements "Walls, ceilings, floors"
2. Semi-fixed elements	Furniture and related items /Sculptural works/ the stairs
3. Unstable elements	The User "Child "

## 2.1. Shaping the child's internal environment:

The design of the inner space directed at the child differs from the space directed at the adult human being greatly different, so the architectural space of the child must imitate his imagination and his own world related to his mind and subconscious



Linear meanings Linear meanings Linear meanings

The following is an explanation of the shapes of the spaces designated for the child in terms of their architectural composition, as the architectural spaces are divided into three types, and they are:

١. Closed space
٢. Open space
٣. The semi-closed space

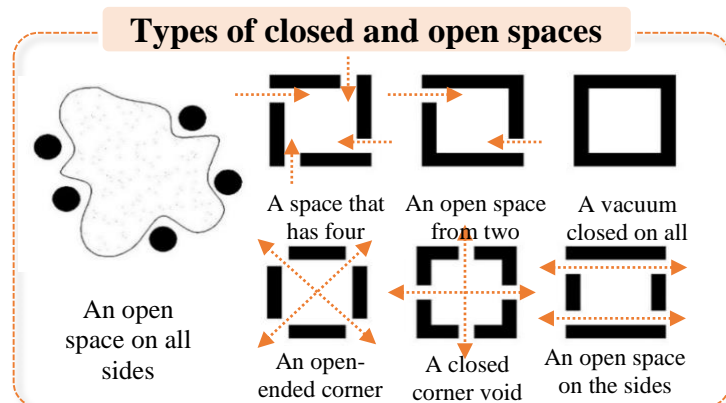
## 2.2. The influencing elements "design determinants" on the child's internal educational environment:

There are many elements that directly affect the child within the space in which he is in in terms of meeting his various needs, whether they are psychological, functional or aesthetic needs, and the following will be exposed to the most important of these elements:

1. color
2. Lighting "shadow and light"
3. Materials
4. Furniture:

## 3. examples of interior design for a child-directed educational environment that contribute to the development of innovative skills:

The following is a review of one of the educational spaces that contribute to the development of the innovative skills of the child through the determinants of the internal design of the space and the patterns of formation and also making use of modern technology in the field of interior design



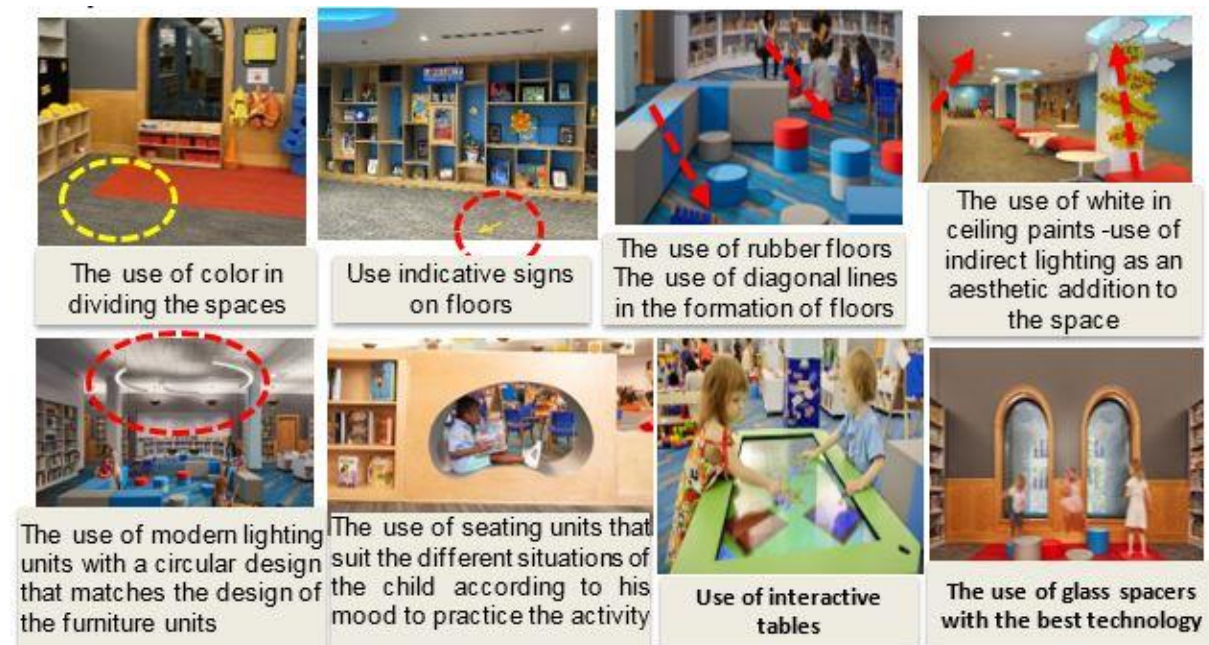
### ▪ Thomas Hughes Children's Library:

The Thomas Hughes Library is a 24,000 square feet children's library located within the city of Chicago, USA that reopened in 2017. The library is divided into three sections called "neighborhoods," according to the children's age group:

The first section: the early learners neighborhood, which targets children under the age of five "0: 5" years

The second section: the elementary learner neighborhood, which targets children between the ages of "6 and" 10 years

The third section: the "tween" neighborhood, which targets children between the ages of 10 and 13 years. Each neighborhood is equipped with games, furniture and activities suitable for developing the skills of the age group assigned to it in many areas such as science, technology, engineering and mathematics, and playing opportunities In addition to a lot of high-quality books. It also provides a large number of digital media, including laptops, cameras, and virtual reality tools, especially in the age group of 10-13 years.



### ▪ Results:

Interior design has an effective and influential role in providing an educational environment for the child that contributes to the development of his innovative skills through the application of design determinants and standards "color - material - light" in addition to forming patterns "linear meanings - shapes and surfaces - measures and volumes" and the use of some modern techniques in the field of design The internal so that it becomes an internal educational environment capable of developing innovation in all its levels, "expressive - productive - inventive - innovative - emanational" of the child.

### ▪ Recommendations:

1. Paying attention to the development of the child's internal spaces and trying to benefit from the internal design in providing an appropriate educational environment for the development of the child's innovative skills.
2. When designing internal spaces directed at the child, the interior designer should take into account the use of standards and foundations appropriate for the child's age group inside the space.

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