

Full Length Article

Design School of Architecture with a view to promoting the quality of education

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ABSTRACT

For better results in the design of educational facilities and the development of creativity need to understand the different aspects of educational facilities is impressive. Here, recognition and flexible learning spaces based on the interactions of students And to maximize the environmental capabilities, flexibility evolve and grow over time will have a significant role in the improvement of education. In these paper, important factors affecting the atmosphere in order to improve the quality of architectural education and creativity in students is investigated. The method of study is descriptive and based on the findings of the studies and documents and valid scientific findings and new. Must be flexible and changeable environment over time provided. An environment where they can be changed according to individual needs and interests.

Key words: educational facilities, improving the quality of education, creativity, School of Architecture

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INTRODUCTION

If you want to underlying productive learning environment for future generations, Environment and its buildings must be creative, not imitated. The environment adaptation and adjustment needs of students in their learning how to be more, as a result more favorable to education creates people. Recognition and flexible learning spaces based on the interactions of students and to maximize the environmental capabilities and flexibility evolve and grow over time, can have a significant role in the improvement of education. Such as lighting and lighting, color selection, communication in various areas, creating internal courtyard or landscaped areas and so on. [1]

THE CONCEPT OF ARCHITECTURAL EDUCATION

Art in the creation of works of art by a different procedure is used with other sciences He is also influenced by their environment. Cannot be fully planned in a way to treat it like any other science. Therefore, in addition to teaching technique is the need to prepare and train to be unshackled mind and talents flourish. The process of architectural education and architectural design, a path is not fixed and inflexible, why did the nature of this type of education is a growing and oral transmission from master to disciple was. If the master control environment and students' mind, the better it can be effective. [2]

The importance of education in architecture

One of the most important issues in the field of architecture, architectural education in Iran today poses, because we are in a period in which a wide variety of issues and possibilities of architecture has been proposed. For example, the number of schools of architecture in the last two decades has been a dramatic increase and unbelievably And in each of them hundreds of students during their training period, While it may be said without exaggeration that many of them were not discussed enough about the goals and teaching methods And educational activities in the short term driven, Without saying anything about the results and implications of the study and were thought to be adequate. Older schools still continue on its

way, without result and the efficiency of educational methods and training in areas related to the way in which they have basically evaluated. [3]

Factors affecting educational environment and their role in improving educational quality
1) Form

Texture and shape of the space component of a consumer sensory perception plays an important role. A polished and smooth texture makes it a kind of serenity and purity in the mind of the consumer. The proportions in educational facilities in the dimensions of the human eye are palpable and recognizable. An intimate and friendly environment creates. Modulation of pure geometric shapes spaces in mind and a sense of order in terms of visual and perceptual induces.

2) Shape

Another definition is typical shape of form in its application to several important points should be noted: Sizes and forms a significant role in sensory perception of people. Economically affordable. Varied forms and money on its implementation should be account the special needs and emphasis on form over time, would be subject to high accuracy.

3) Light

Light is one of the most important principles in providing visual comfort and space the psychological effects in humans is different. Research has proven Natural light and transparency that has a positive effect on the senses. There is natural light with good vision to create a vibrant sense of space. In short we can say that enough light and the right lighting makes the learning environment:

- Increased desire to work and learn.
- Accuracy and attention on the rise.
- Eye health and vision preserved and be less tired nerves.
- Work better, easier and more accurate than done.
- Spatial diversity and create more space stressed.

Using the proper lighting to provide physical and spiritual comfort implications. The minimum and maximum brightness of 200 lux to 500 lux is required in class.

1) Color

The most important factors in the transmission of messages and concepts color space. Color as one of the inseparable elements of nature and architecture greatly affects the mood and sensory perception and mental and emotional states of users and affect them. The results of the research show that psychologists 5 to 14 years of age at different periods in different color preference.

Latex paint used to color the better classes or pale blue, cream, green and white color chose very low room flooring white color can also be selected on wood ashes or colors. Students should be matte painted surfaces of furniture. Color psychologically for various shows such as emotional reaction, peace, vigor, especially in children is very important in terms of form and duty.

The color of the interior lighting will be controlled. Reduces discomfort and fatigue day. Educational spaces, the path should be floods and earthquakes and faults. For students from states that have symmetry in the symmetry plan will be used. In terms of soil and topographical characteristics of the land should be considered. Soil in which they are built, the school should have a weight-bearing structure Soil characteristic resistance should be less than 1 cubic centimeter. Swampy areas or in areas with shallow groundwater and the cost of excavation and land preparation will also be considered.

2) Voice

Listen Field of the most important factors in learning. The maximum acceptable noise levels in the space of 35 Dismal the classroom. About noise that is good for humans is during everyday activities Called optimal range. Noise, noise or noise that sounds bad for a number of its activities should not exceed a certain limit. For example, in open class sound level at a distance of 7 meters from his teacher usually dBA 75 dBA 68 and in such a situation unfavorable balance of sounds that are heard in class must be controlled so that does not exceed the amount dBA 63. [4]

3) Thermal conditions

Check the size and shape of its impact on the visual field of the eye Shapes and forms all have certain concepts that have psychological effects on an individual's perception and individual learning and contribute to the quality of education.

-Near the square form: A form of static and secure and are suitable for spaces pause.

-Near-circular form: soft, curved forms induce a sense of relaxation and comfort.

-Rectangular form: A form is a dynamic and induces a sense of motion Use this form to the appropriate corridors;

-Concave form: it is because of dents in body inviting induce faith.

- Convex form: Due to the bulge in its shape evokes the repulsive and repellent.

- Simple forms: Symmetry and balance the mind and evokes the pure forms.
- Irregular forms: fanciful and can stimulate creativity in people.
- Dormant forms: public static feel and forms show more complexity and more complex for places stress can induce vertical forms are often used.
- Irregular form and retaining the visual and sensory perception lighter than regular forms and simple for the viewer looks vertical. To induce a sense of dignity and pride of simple forms and more regular heavy they seem to be. [5]

Factors affecting the perception of learning environment

- Discipline

Space systems play an important role in the perception and the sense of being trapped. Geometric regularity and simplicity of form, space helps to understand the person.

- Sequence Space

Enclosed space: the space is enclosed by physical elements. Closeness to distinguish from each other, are arenas. This spatial separation has created a major difference between traditional and modern architecture.

1) Space density: the ratio between empty spaces and fills that space depends on the size and height and brightness. With the doors and windows of closeness space can be reduced. Also be used to create variety and charm.

2) The size of the space: three of scale and the human dimension, the dimension of furniture, privacy and operations to achieve desired facility environment is important. [6]

Factors in the design of educational buildings with climate approach

- Check the thermal status classes
- Prevent heat loss in cold cases
- Use daily fluctuations in air temperature
- To establish building
- The physical form and organize plans
- Light
- Color
- Voice

Continue to investigate the cases mentioned in the main areas of focus:

classroom:

Classroom theory is in fact the main part of the training. The classroom should be organized in such a way that will have the flexibility to do different activities; window height is directly related to the middle class. This means that the middle class is, the longer the window height should also be considered. The classroom should be left to lightening in the window are provided so that the light from the left students bring to the table. Artificial lighting should be from the ceiling and by fluorescent lamps (fluorescent) being provided. The reason is that if the fluorescent light from the roof to be installed on the wall, will cause eye strain (Fig. 1).



Figure 1: Example of classroom space

The classroom should be a place above the little master class. In fact, the class should be considered a teaching platform that these factors can increase the scientific expertise and increase the visibility of students. The School of Architecture as the most practical and drawing is done in studios. Therefore, taking into account the desks of two and three-seater been dropped.

In this paper we chose for Furniture handles use of single seats (Fig. 2).



Figure 2: Example of classroom space

Plaster wall behind students should also be made well. To the voice of the teacher in front of class to resist. The color should be noted that the color of the floor mat classes must be considered Paint walls must be smooth color such as light blue, cream or pale green. Also in projects in the field of educational facilities receivables that are stained in staining the cabinets should operate smoothly. But space in front of the eyes of people of color staining rest is distinct parts. If appropriate use of color and light to suit the needs of users can be instilled in them a sense of calm and security. Below are the constituent elements of color and their effects on the psychological impact of colors on the use of space and educational facilities has been paid. (Table 1).

Table 1: Suggested colors using the constituent elements of space

Effect on the floor	The effect on the wall	The effect of the ceiling	Color
Opaque	Matte and dull	Shaded	Gray
Unusual	Neutral spirit	empty	White
Incomplete	hell	empty	black
Heterogeneity and chaos	Heterogeneity and chaos	Heterogeneity and chaos	Violet
Motionless and futility	Cold and unofficial	Heavenly cool	light blue
Strong	Magnified	heavy	Dark blue
Natural and safe	Comfort and tolerance	Guard	Green
Firm	Security section	Heavy and hard	Brown
Enlivening	Exciting and stimulating	Brightness, vitality and emotion	Yellow
Activating stimulus	Hot	Exciting	Orange
Inappropriate	Anti-Invasion	Comfortable	pink
Consciousness	Invasive	Heavy inappropriate	Red

Photographs and Slides:

This space does not have natural light. In addition, if the spots where investments were considered Natural light we must also be considered thick curtains. Latex wall paint should be considered to reduce the shiny walls are not in class. (Figure 3)



Figure 3: Example of room photos and slides

The classes need to order the better to equipment such as TV, projector tables, cabinets, tapes and CDs, etc. is necessary. Ceilings and walls should be acoustic.

Conference room:

This section is for discussion between students and professors and experts are taken into account. When designing this space should be seen in the higher classes. Unrelated to the problem of commuting (commuting students to classes, etc.) does not interfere. Space is desirable in about 24 to 30 people. Conference rooms can be natural or artificial light supply (Fig. 4)



Figure 4: Example of conference room space

If we use the natural light, The Light north. Uniformly spreads the sound to suit the acoustics of the space is in all rooms which makes it easier to use contacts from the speaker's speech. Studio technical drawing: The area of this space based on the table drawing and standards as it is determined. It is usually considered to be space for 24 to 30 people. The studio can be natural or artificial light, but the essential point about light design, lack of shade. That is why it is better to use artificial light and evenly. Light used must be provided by fluorescent lamps and bulbs should be installed in the ceiling above the drawing tables to create a minimum of shadow (Fig. 5)



Figure 5: Example of technical drawing studio space

Color drawing tables should be dark colors and shiny. The house must be painted light colors, which over time will not cause eye fatigue.

Workshops:

1) Workshop materials:

Even today with all the progress that has been achieved in the field of building technology and new materials that have entered the market, Again, look around we find that still "stick" played an undeniable role in the building. The dimensions of the space-based machines and devices and tables are determined necessary in the workshop. The workshop due to the noise it creates and the possibility of heavy equipment such as semi-industrial saws, milling machines and electric shaver and better .The positioning spaces, the workshop on the first floor or in the basement if possible put.

2) Replica workshop:

In addition to providing a sketch and drawing techniques, another way to show the project is conceived or phased goes according to plan, That it is a replica of. The replica of a suitable technique for quick and easy transfer of intellectual, dimensions, area and more. Model building workshop can be artificial or natural light. But even artificial light is necessary to work better.

Exhibition hall: Exhibition (temporary or permanent) students or faculty of arts activities can be a Faculty of Architecture's life. Theaters and the judge must have the following characteristics:

- All objects and paintings should be easily visible.

- Dramatic art must be in the best condition and it is considered to be a large hall and administrative space for the various exhibitions with movable partitions to be done.
- 54 degree viewing angle for man (27 degrees above the eye line above).
- Area for a picture on the wall is 3 to 5 square meters.
- Archive contains two different areas, one student projects and other local storage location for the project by taking tables and chairs for reading. Table and chair in charge of archives located in the same area (Fig. 6)



Figure 6: Example of lounge space

Amphitheater:

Amphitheater in order to make room for gatherings, presentations, artistic performances and is designed. In addition to the standards and criteria should be standardized amphitheater venues such as emergency exits and which are related to theaters ,Hall also has Bashnd.nvr provided by artificial lighting And materials should be selected in such a way that the sound insulation. Hall has space to the side of the stage, the room behind the scenes and more. (Figure 7).



Figure 7: Example of the amphitheater

Library:

- Individual study rooms:

Some places in the building libraries for individual studies researchers can be considered. The room should be well sound-absorbing materials, which materials are to be made to the possible noise outside the room Nshvd.ayn space due to the relatively low volume, you must have proper ventilation.

- Reading room:

Appropriate rooms with library activities mainly include study space, storage space Vnshryat books. Reading spaces usually in the library collection, both open and closed tank system are considered. The study could also study hall multiplayer tables 4, 5, 6 or more persons or individual study tables could also be studies as kiosks or even a combination of both types. (Figure 8)



Figure 8: An example of space

• Place curator:

This place must have visibility into the main hall and have appropriate access to the tank. Consider a separate counter for study hall section with the curator Vmkhzn very effective and useful. In most cases, using artificial lighting to lighting this space we use uniform and it should be noted that the area required is determined on the basis of number of books.

Cafeteria:

Space is your time students can spend their leisure hours. This space should be comfortable, intimate, fantasy and good Buddha is out and green space. This space should be a place where student's relative freedom there is for fun, chat and laugh does not interfere in the class. (Figure 9)



Figure 9: An example of cafeteria space

Office space:

Management and administrative buildings should be designed to be equal access for all sectors of education. Administrative spaces are usually in the upper floors but the students can be designed on the lower floors. Office secretary and conference room management group must be a direct connection (door) is. Natural light in office space provided. The office is usually the width of connecting corridors training, but the important point to note in administrative designed to provide open space as the hall or lobby in front of the students. To avoid congestion. (Figure 10)

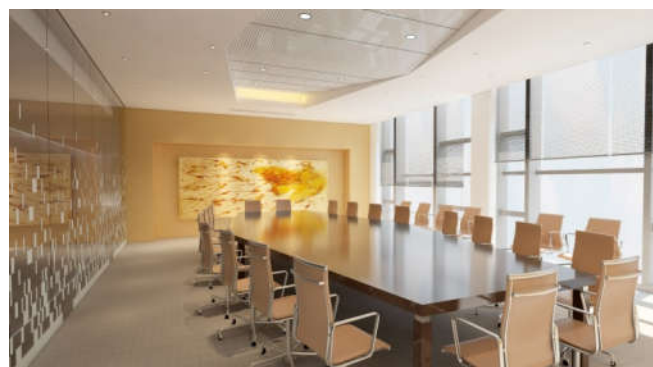


Figure 10: An example of the boardroom

CONCLUSION

Training of creative and stimulating the imagination of students, But the creative education and the factors considered in the design of educational facilities is less architecture Accordingly, you should consider designing learning spaces creative process architecture And its components according to the needs of the audience to examine the relationship between mental field of human interaction with the environment and the human environment be established And therefore provide a suitable environment for creativity students. To have an environment where the creativity of the students, their minds mobility as well as change their view about the environment lead to flexible and changeable environment over time provided. An environment where they can be changed according to individual needs and interests.

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