
Design Criteria Governing the Contemporary Schoolyard as a Necessity for the Advancement of Industrial-Technical Schools in Egypt

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ABSTRACT

The contemporary school yard is an influential element in developing many of the student's mental and emotional perceptions, achieving psychological balance for him and enhancing various aspects of his personality in general and for the student of Industrial Technical Education in particular, due to the values and design criteria it contains that make it the scene of many and

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varied theoretical and practical activities in which the teacher and the student participate in order to acquire knowledge, skills, behaviors and attitudes that prepare for life, and the school becomes the second home for students. By achieving this, the educational process will become more efficient and distinguished, and it will also necessarily lead to the advancement of traditional industries that depend on the skill and abilities of the student. There are many previous studies that have shown that the reasons for failure to achieve good success are not only due to the student's intelligence level, but rather a number of factors that contribute to reducing the chances of success, the most important of which is the school climate, where the student can learn a lot without feeling it through his presence in a rich educational environment that motivates him to love learning and connect parts to each other and enhances his mental and artistic abilities such as creativity, as creativity is not merely an independent ability or talent, but it is largely linked to the surrounding environment and the balance among these capabilities enables the student to produce creative products with a distinctive skill level, and this is what Social Ergonomic Science, which is based on Psychology, Architecture and Design Arts, is interested in (Raymond, Malouli - 2010).

Introduction

The design of outdoor spaces in educational environments is one of the most important areas of design and visual arts in general, as it is an art that has its own aesthetic standards and controls, which are closely related to the environment in a way that serves the quality of the student's life and well-being, in light of the current global and local interest in the environment and working to protect and preserve it, the research will be subject to study and analysis of the design criteria for the educational environment outside the school building represented in the schoolyard and its natural and structural elements for Industrial Technical Schools in Egypt as one of the most important sectors of education affecting the national economy in Egypt. Industrial Technical Secondary Education represents a self-ended stage for most students, which is the pre-university stage, so it is a stage that constitutes the first seed for handicrafts and traditional industries as a result of preparing trained human cadres to upgrade these industries. The interest in that educational stage and its components is the development of mental capabilities, technical skills, aesthetic sense, behavioural evaluation, thought crystallization... etc., is not effectively present in our schools, herein lies the problem, the art school graduate is now far from keeping pace with contemporary developments, so his products come in an image that lacks a lot of aesthetic sense and creativity. Consequently, it is unable to compete with the global market, and even the local market in some cases, and the external educational environment, not only the internal

environment in the school building, is one of the reasons for the failure of the educational process in these schools.

Research Problem

The research problem lies in the scarcity of interest in design criteria for the courtyards of Industrial Technical Education schools, despite their very important influence on the student, as it is his first impression, and the place where the student starts his school day and spends a period of time not less than 20% of the school day, divided among morning assembly, physical education and many other activities. As this problem arose as a result of field visits to some Industrial Technical Education schools in Cairo, it was also noted that the Industrial Technical Schools obtaining special accreditation for the quality of education has become insufficient to achieve the total quality of the educational process, as the items of accreditation did not include the design criteria for the school site and its yard to the extent required.

The research raises several questions, namely:

- Was the yard planned for the Technical Secondary Schools according to governing design criteria that meet the requirements and needs of the student?
- Does the yard environment contribute to the achievement of the educational goals and the development of the technical skills of the students?
- Does the design of the courtyard of the Technical Secondary stage of Industrial Schools affect the promotion of the handmade and traditional industries for the Art Education student?
- Does the school courtyard design contribute to supporting the Egyptian national economy?

Research Objectives

The research aims to find governing design criteria that can be used in the upgrading of industrial education schools and the quality of their educational environment as an important step for the advancement and upgrading of traditional industries and handicrafts.

Research Significance

The study derives its importance in that it discusses a vital problem related to the quality of life of the Industrial Technical Education student, and consequently the low level

of his handmade products and their inability to compete with the local and global market which affects the weakness of the national economy.

Research Methodology

The research follows the inductive and descriptive analytical method, which was based on the presentation and analysis of models for the yards of international schools that won design and educational awards, and a field method through an analytical field study of an accredited Industrial Technical School.

Findings

1. There is a strong relationship between the quality of the school yard design and the improvement of social performance between students and some of them on the one hand and between them and teachers on the other side in the school, where direct interaction with natural elements such as plants on the location without restrictions reduces psychological pressure and improves behaviour and health.
2. Several factors, including architectural, environmental, psychological, technological and educational factors affect the achievement of design criteria in the school yard.
3. Taking into account the design considerations when designing the school yard to raise the intellectual and creative level of the products and industries of the Art Education student.
4. The direct interaction and daily contact of the student with the elements of the courtyard lead to the establishment of the principles of environmental awareness, sustainability and waste recycling among students, which is reflected in the upbringing of generations that have awareness of the environmental resources and their preservation.

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