

Learning models and cooperative learning in architectural education

A case study of building construction education

Abstract

Educational and learning Strategies are considered one of the most basic pillars for the learning process in Egyptian Universities, in which they need continuous development to reach best results. Despite being the role of educationists, development requires to engage all participants in applications and to consider it the methodology for achieving high qualified distinct learning.

Various Learning Strategies, such as Co-operative learning, Electronic learning, Learning by Discovery and Learning Models... etc., are being applied to achieve the main three objectives of the learning process which are the Cognitive, Psychomotor and Affective objectives.

The paper aims to focus on the strategy of "The Learning Models" as a tool to improve the learning environment; it also includes "The Co-operative Learning" as a complementary strategy, both proposed to act as an integrated Active Learning strategy. The study starts with a theoretical approach presenting main concepts and determining objectives of the selected strategies. Then, it analyzes four students' workshops in Egyptian universities, especially in faculties of Engineering in order to deal with and illustrate spatial designs such as learning the structure of Space-truss through Alternative Modeling, and learning the process of Masonry bonding through Real Modeling. The analysis presents the application steps and workshops' evaluation to achieve the proposed methodology that will be applied and examined on groups of students in one of the faculties in Fayoum University and in the Future Institute in Fayoum.

Finally, the study concludes that the proposed methodology could be considered as an applicable integrated method to enhance the learning process and to overcome problems due to huge numbers of students in the education process.

Key words

Learning models, cooperative learning, educational workshops.