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Experience of traditional teaching methods in architectural design education: “mimesis technique”

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Abstract

Architectural design education aims creativity and differs from other education systems. Educational sciences consist of sub-discipline titles such as “education methods”, “teaching techniques”, “educational environment”, “education tools” and “educational psychology”. In creativity education, it is necessary to use some of these components simultaneously. In the semester that was conducted in Gazi University, Department of Architecture, some of methods and techniques have been used sequential. Theoretical period was “narrating lecture”, “discussion” and “ask a question” in data collection and evaluation. During the creativeness part of design education, “mimesis” technique has been tried. Contemporary design samples related to design problem have been shown and students were requested to be inspired from these examples for their new designs. At this stage, it is aimed to evaluate the progress in designing skills of students by using deductive mimesis technique. As conclusion, that technique is time saver and idea generator in creating new solutions. Inspiring from the main features of shown samples instead of imitate them, is utilizable method in architectural creativity education.

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Keywords: Education Methods, Teaching Techniques, Architectural Education, Design Education

1. Introduction

By dictionary definition, Education is defined as “directly or indirectly helping children and teenagers acquire the necessary information, skills and understandings, develop their personalities in and out-of-school to make them involved into the social life; manners”. The educational science, is the science examining the disciplines that pose education. Educational sciences, having expensive sub-disciplines, are composed of sub-titles such as “Educational methods,” “Teaching techniques”, “Educational environment-tools” and “Educational Psychology-Multiple Intelligences”.

Educational methods are divided into two groups: “student-oriented” and “teacher oriented.” “Narrating lecture,” “discussion”, “asking questions”, “Sample case”, “showing sample”, “problem solving” methods are applied in both of the groups. Teaching techniques are classified as “Brain-storming”, “Question & Answer”, “Mimesis”, “Pair and

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Group Works”, “Role-Playing”, “Creative Drama”. As for the educational environment, it is divided into two main titles: “distance education” and “formal education.” Formal education environment are varied such as classroom, work station (cluster, group) and one by one interactive and educational tools are varied such as traditional and digital tools.

There are many factors affecting the preference of the mentioned methods, techniques and environments. These are as follows:

- *Course content:* It is the phase that defining the targeted information and skills. Foreign languages, Literacy, Natural Sciences, Social Sciences, Art, Physical Education, Mathematics, Technology, Business Administration, Profession, and Religious Education can be given examples about this subject.
- *Characteristics of students:* Age, sex, culture, educational psychology and multiple-intelligence practices depending on the interest-intelligence forms of the students can be discussed.
- *Characteristics of the instructor:* It defines the qualification of the teacher appropriate for the objective of the education and areas of expertise (theoretical, practical, laboratory, etc.).
- *Characteristics of the educational means-tools:* Media tools appropriate for formal and remote education define these characteristics. Classroom, laboratory, workshop, sports facility, computer equipment can be given as an example.

2. Nature of the architectural design education in creativity context:

Architectural education differs from the other education branches, includes both theoretical courses involving such methods as transfer of information and evaluation; and also “creative studio” activities specific to design education. Theoretical lectures in architectural education, are narrated in “teacher oriented” manner; design studio education is managed both “teacher-oriented” and “student-oriented” manner in terms of method.

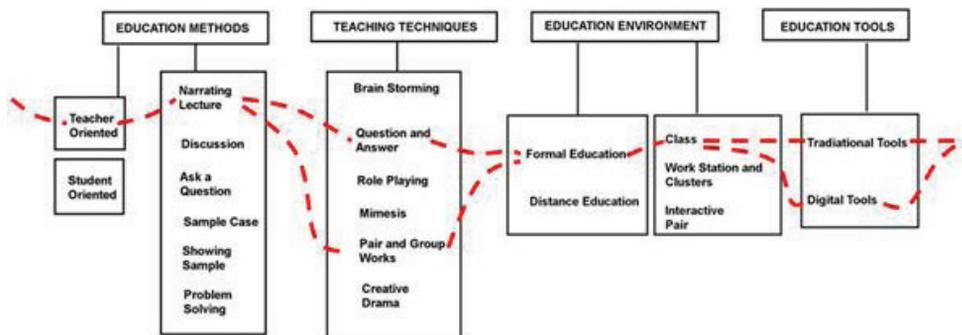


Figure 1. Educational components in theoretical step of architectural design education

“Design Education” is a environment where information is directly transferred to the student and new solutions requested. The basic characteristic of the design education is the fact that the proposed new design of the student is criticized by the supervisor one by one. So, there is not unique correct solution for the given problem. During this process, the original ideas of the various students are developed and the conclusions are transformed into the visual products such as drawings and models. Educational environment is divided into two as distance and formal education nowadays, while architectural design education environment is in form of “formal education”, “classroom” and “one by one interactive”. Education tools are varied as traditional and digital tools (computers). Even though creavitiy period receives data from theoretical information areas, the basic characteristic is that is students and teachers are one by one interacted. In design education, subject of this study, “narrating lecture”, “discussion” “ask a question”, “sample case” sub-methods were used in the first data collecting phase. In the

traditional inductive creativeness education, “showing sample”, “problem solving” methods are used in the design phase when students started to improve their main ideas. Teaching techniques were practiced as “question & answer”, “pair and group works”, “brain storming” in the phase when students started to work in order to obtain “primary generator” pre-designs.

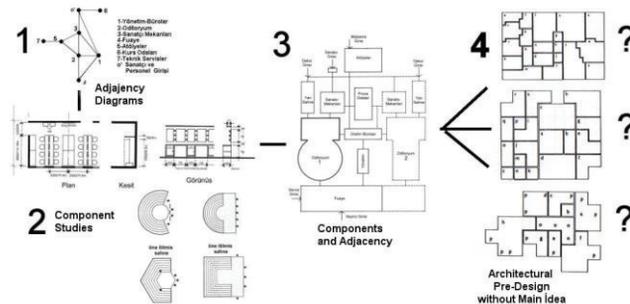


Figure 2. Inductive data processing in traditional architectural design education

This step is critical step as a starting node of shaping process. Creating first main idea takes long time generally in the inductive design education.

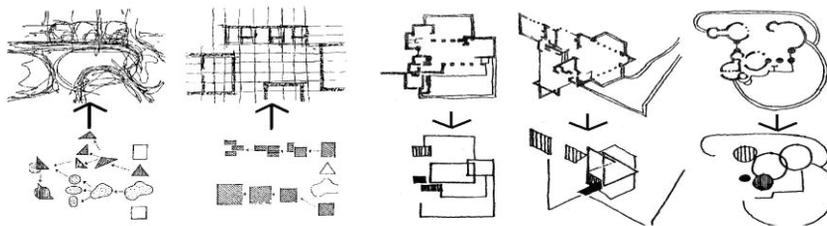


Figure 3. Obtaining main idea sketches as primary generator (Uraz.T.U)

3. Case study

The case study was conducted in Gazi University, The Department of Architecture, and design studio with a cluster of thirty-five students. In the phase of theoretical narrating lecture and collecting data about problem; teacher-oriented, discussion-debate, sample case methods were applied in formal education (8 hours a week) and class environment. In “creativity” phase, which is the original part of this study, “Mimesis” technique was examined on a group of students. Design drawings and photographs of previously made contemporary architectural samples were shown related with the semester’s subject of design. Students were expected to be inspired by these examples for the new solutions that they were to design. In this phase, “showing sample” methods were not used. It was targeted that these would be the “starting point” for the “transformed and new” designs after the inspiring the shape properties; not “imitating” them. The spatial program, function and place of the students’ design was different from the example shown. It was targeted to shorten the obtaining of the primary form and reach the primary generator.

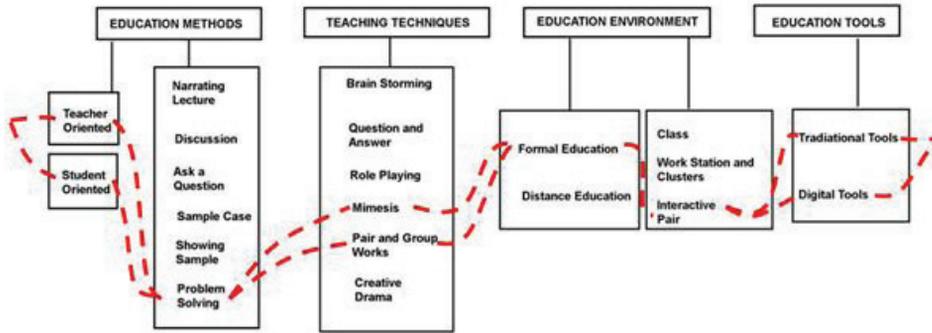


Figure 4. Educational components in creative step of architectural design education

Primary idea acquired by following this method and technique was developed throughout the semester. Students were divided into groups and continuously worked on the models in addition to their illustrations. The primary idea was developed during the process and different designs were obtained from the examples shown.

Table 1. Mimetic relation between shown contemporary architectural samples and student designs at the end of the semester

3. Conclusion

Design education was composed of the steps as “theoretical information transfer, analysis of problem” and “creative studio.” Different methods, techniques, environment and tools were required for these two consecutive steps. Explanation and analysis of the area of design (field), physical environment, climate, cultural environment, spatial requirements, function, budget, technology and similar characteristics of design problem are examined in the theoretical phase.

As the educational method; teacher-oriented, narrating lecture, discussion, showing sample were used in this step. As the teaching technique; question & answer, group works techniques were used traditionally. As the education environment, classrooms and student grouping in the form of formal education were used. Educational tools were digital tools such as computers etc.

These components were changed in the second phase of the creative design education. It is seen that student-oriented, inductive problem-solving methods were used traditionally. In this phase, pair work of supervisor-student technique was necessary to apply in order to obtain various design solutions from each of student. Classroom and group works were left due to that reason. It is observed that obtaining first idea and primary generator sketches from students were taking more time than deductive approaches.

In this study, deductive “mimesis technique” was tried in the creativity step instead of traditional analytic, inductive education. The purpose of that examination was shorten the searching time of the starting node to the architectural shaping. Utilization of this technique was observed as time-saving assistant technique for obtaining first sketch of main idea in the early period of the creativity education. Successful student works were created by using the mentioned technique.

In spite of success of this technique, it is seen that “mimesis technique” is not sufficient individually and should be used by traditional analytic-inductive methods simultaneously in order to solve interaction of the inner systems of the building (spatial configuration, structure etc.) and outer shape.

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