

The first year of design education: Abstract - concrete problem-centered model

Armağan Seçil Melikoğlu Eke *, Faculty of Art and Design, Department of Interior Architecture & Environmental Design, Istanbul Kultur University, Atakoy Yerleskesi, Bakirkoy 34156, Istanbul, Turkey

Gülay Usta, Faculty of Art and Design, Department of Interior Architecture & Environmental Design, Istanbul Kultur University, Atakoy Yerleskesi, Bakirkoy 34156, Istanbul, Turkey

Suggested Citation:

Ozturk, F. & Berksan, O. (2016). The first year of design education: Abstract - concrete problem-centered model. *Global Journal of Arts Education*, 6(1), 11-19.

Received 27 January, 2016; revised 04 March, 2016; accepted 09 April, 2016.

Selection and peer review under responsibility of Prof. Dr. Ayse Cakir İlhan, Ataturk University, Turkey.

©2016 SciencePark Research, Organization & Counseling. All rights reserved.

Abstract

This study explains the first year experience that is the focal point of the design education at the Department of Interior Architecture and Environmental Design at IKU. The management of this process is of great importance for the students to learn a new language, adopt new approaches as well as their adaptation and motivation. Therefore, a studio model has been designed to ensure that the students are freed from their previously learned conditionings, start to challenge their mindscape, think about their problems in a consistent way and thus, reveal their creativity and gain new experiences. This model adopting the "learn by experience" approach forming the basis of all design studios is planned with several student- and team work-oriented, short term experimental studies and motivational events (sightseeing activities, sketching works, reading activities, discussions, going to art events etc.). The model comprised of first and second terms and planned as a whole focuses not on the resulting products, but rather on the experimental works designed for the development of creating process. Any practice that is thought to contribute to the creativity and creating process of the students is examined under the headings of "problem, method, gain and student works" that forms the model structure. Therefore, the model is considered to be important since it tries and develops different approaches in design training and sets an example for the future studies.

Keywords: Abstract-concrete problems, design process, design studio, experience

*ADDRESS FOR CORRESPONDENCE: **Armağan Seçil Melikoğlu Eke**, Faculty of Art and Design, Department of Interior Architecture & Environmental Design, Istanbul Kultur University, Atakoy Yerleskesi, Bakirkoy 34156, Istanbul, Turkey.
E-mail address: armagansecil@yahoo.com / Tel.: +9-0533-642-2294

1. Introduction

The studies on disciplines that focus on space design such as architecture and interior architecture form a major part of the researches on the design education. The design education that is tried to be understood and designed by associating the education modules with different subjects such as creativity, design process, design studio and design experience aims to ensure that the future designers gain a different approach to design. Currently researches on the place of creativity in design education, which methods and techniques are used for developing the design education and which processes are implemented are still ongoing while new approaches are also tried for the design education. This shows that the relation between creativity and education is an important one requiring special attention.

The design studios being the focus of the education come to the forefront when the efforts to develop creativity in design education are taken into consideration. As Schön (1984) also pointed out, the design classes are the most important in design training programs and the design studios act as the place of practice of these classes. The education should be designed on the design studios where especially the students who have not received any design education before meet with and experience the designing for the first time. Moreover, a new design language should be taught and integrated with the design education at the design studio. Therefore, the aim of the design studio should be freeing the students from any kind of conditioning, giving them the chance to use their imagination and self-expression and ensure their gaining new experiences for the future.

The methods used in design studios known as the places where the design process is experienced, the communication model between the advisor and the advisee and the student psychology are the most crucial matters for the architecture and interior architecture education. Design studios are defined as places where design students spend most of their time and learn the design methods by Shoshi and Oxman (2000). In parallel with this, different methods are being developed and tried based on the preferences of design lecturers. For instance, the part based approach where students are presented with a functional problem and try a design on the same and divide the problem into small parts and take into consideration each part separately, approaches based on basic design education and supporting abstract works and similar approaches are available (Ertürk, Usta & Usta, 1999).

The organization of design studios, studio models and the architectural atmosphere in the studio are considered to help the students with generating ideas. For example, the study by Bermudez (1998) on the studio environments with digital media products and traditional studio environments revealed that the studios supported with digital environments are more successful for helping students generate ideas, turning the ideas into concrete products and criticizing the ideas. Researchers such as Stannard (1998), Wojtowicz (1995) and Kolarevic (1998) conducted studies proving that the studio environment helps with generating ideas and creating feedbacks in terms of developing creativity (Kahvecioğlu, 2001). From this point of view, all efforts in fact aim to develop the creativity of the students and as a result, the first year in design education where the student meets the design language is crucial and should be organized well.

This study presents a model covering the first year of design experience, the management of the process and ensuring that the students gain productive and creative design skills. This model is used in the first year design studio forming the first step of the education process. The model designed with the aim to teach a new language and thinking - designing methods with a holistic approach ensures that the students develop different thinking methods when faced with different problems and learn different experiences from them.

2. Theoretical Limitations

Designing can be explained as a developing action that includes questioning a problem, taking actions to resolve the same and revealing further actions or new opportunities from these

actions. Taking this point of view into consideration, it is possible to define designing as "a process comprised of processes of creativity, problem solving, thinking, learning, comprehending, scientific research and including certain and variable components of such processes"(Ertürk, 1981). The design process forming the focus of the design discipline can be considered to have a structure that continually renews itself and yields products by generating experiences and gaining new experiences upon questioning. Therefore, the process is in fact not a single way process where analysis, synthesis and evaluation steps follow each other but is rather a rich experience source that creates innovations and differences with feedbacks.

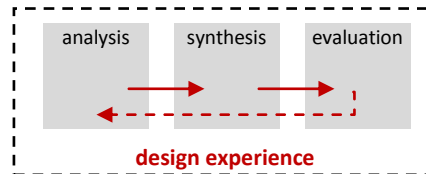


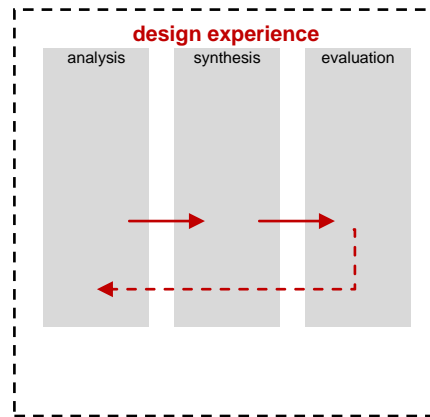
Figure 1. Design experience as a result of design process

The same applies for the education process considered as the simulation of professional practice in design discipline. The "constructivist/progressive learning model" developed based on the approach by Dewey in early 20th century emphasized that "each learner creates his own learning" unlike the traditional education and caused major changes in learning approach. The new education model by Dewey can be summarized as follows: "What is taught is thought of as essentially static in the traditional education method where the role of the students is to do and learn. Neither the ways in which the information taught was originally built up nor the changes that will surely occur in the future are not taken into consideration, leading establishment of no relation between the past and the future. Whereas, expression and cultivation of individuality is implicit in the new education approach unlike forcing the students to learn in the traditional education. The common principles of new progressive education are free activity as opposed to external discipline, learning through experience, making the most of the opportunities of present life and acquaintance with a changing world (Dewey, 1997)."

The conventional design education approach based on master - apprentice relationship has been replaced by today's new experience based models where the students "learn by doing". The organic connection between personal experience and education acts as a motivator for the students to internalize the design process. Therefore, each design experience extends the scope of and leads the way for any future experience.

The past's master but the today's lecturer acts as a mentor encouraging the students to access to available information and try to create new ideas by ensuring that the students experience things within the limits of their capacities. New facts and ideas acquired in this way bring new problems to the agenda and form a basis for the creation of future experiences. This requires the design of the lesson plan, method, resources and tools in accordance with the capacities and the needs of the students. The lecturer takes on the role of the consultant who stays out the student experience. This, in turn, changes the role of the lecturer as being the focus of the design education and renders him student oriented, thus facilitating the learning by doing - experiencing process for the students.

The first year of the design education forms a different experience stage from all aspects for all students that are accustomed to the conventional training system. Although the students are introduced to a challenge where the information is not directly provided and they have to struggle to access it with their skills and creativity, this process helps them gain certain experiences. Such experiences will be stimulating for different thinking and design in their training and professional career. However, what is important here is that the experiences gained will create the conditions where they will be needed. Therefore, the design of a training model should include positive experiences for the students.



The information and skills that the first year students of the Department of Interior Architecture and Environmental Design of IKU having adopted the education model of learning by experience should gain are as follows:

- Learning a new language
- Critical thinking
- Learning how to learn
- Exploring environment
- Abstract thinking and observation
- Strengthening visual skills
- Recognizing and using concepts
- Self-expression and communication

The design education using this approach has to be designed in an unconventional way that requires continuous restructuring and being open to new trials and experiences. Especially generation of alternative thoughts by the brain against different problems will only be ensured with different problems. The examination of the design process in education reveals that the experience-process relation is planned in different forms:

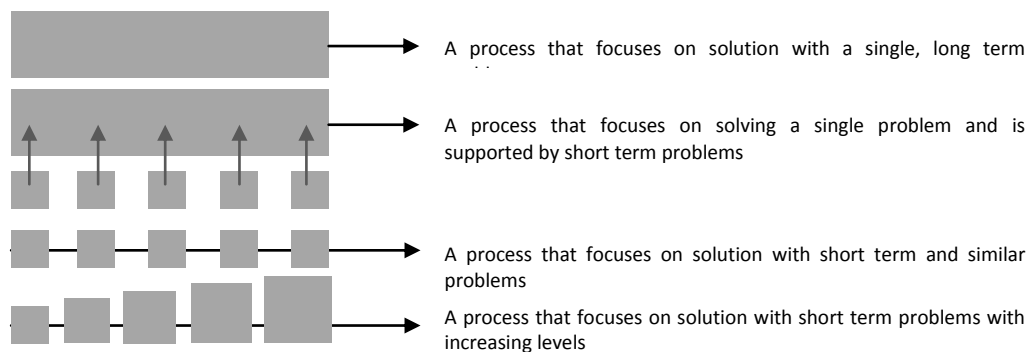


Figure 2. Diagram of the experience-process relation in design education

3. A Model of Multiple Design Problems

The study presents the design studio training model used for the Interior Architecture Project 1-2 class thought at the Department of Interior Architecture and Environmental Design of Istanbul Kultur University during the term of 2014-2015. The model planned with an holistic approach covers two terms and includes a design studio process. The model designed with short

term experimental works focusing on abstract and concrete design problems and motivational events (sightseeing activities, sketching works, readings, discussions, attending art events etc.) are supported with the juries, considered as an indispensable design education method. The design extending over two terms and twenty eight weeks in total is presented in Figure 3.

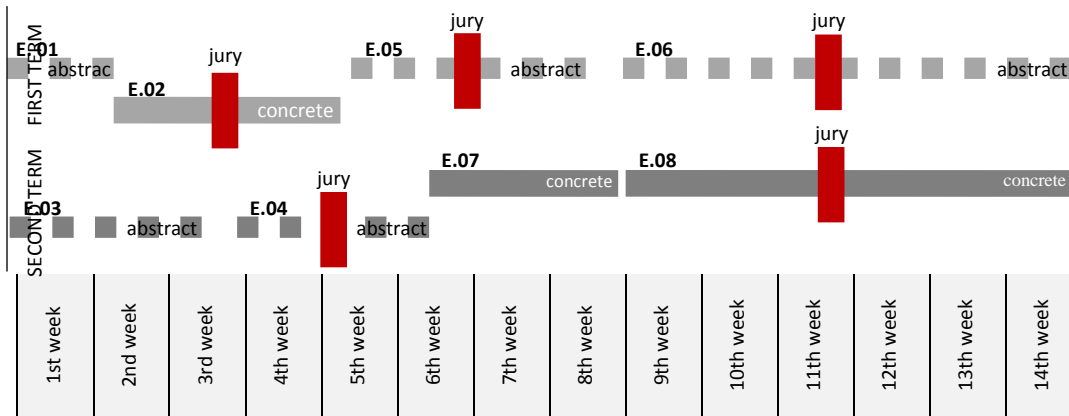


Figure 3. Interior Architecture Project 1-2 Studio Schedule

The model created using the learn by experience idea of Dewey defines a process which focuses on student experience and where the lecturers acting as part of a jury contribute to the students from time to time and different design methods contributing to the students are used. During the planning of the first year in the design education, what the students should acquire with the Interior Architecture Project class was taken into consideration and the entire year program was designed accordingly. The Interior Architecture Project class taking most of the first year course plan was planned in a way to solve multiple design problems to ensure that the students gain multi-dimensional design experience.

The text-form relation method, sketch method, Ledoux analysis method and criticism method were used in this process by the juries. The text-form relation interpreting images aimed for associating the texts with forms and creating rich results based on personal interpretation. The goal of the sketch method which will ensure that the students gain image abstraction skills and learn eye-hand-brain coordination, was to enable the students recognize, understand and abstract the architectural environment. Ledoux method, which is a 3D analysis method designed at early studios, on the other hand, focused on students' learning architectural elements that form the space and creating new spaces and forms that will yield their potential. This process enriched with different methods certainly ensures that the students gain different design experiences even if they do not want to.

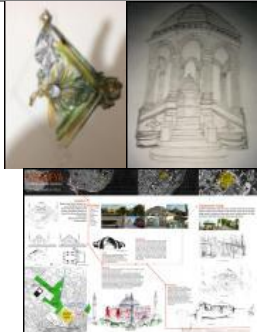
The abstract-concrete problem analyses regarding the short term experimental works used under this study can be examined under 8 different steps focusing on the elements of "problem, method, gain and student works".

Experience 01:

PROBLEM	METHOD	GAIN	STUDENT WORKS
Using different characteristic lines to explain personality or a dominant feature	<ul style="list-style-type: none"> Sketch 	<ul style="list-style-type: none"> Abstract thinking Exploration Recognition Flexible thinking 	


The aim of this experience is to ensure that students understand abstract concepts such as personality, emotions and gain interpretation and abstraction skills. The students were expected to experience "self-discovery" using free expression.

Experience 02:

PROBLEM	METHOD	GAIN	STUDENT WORKS
Reading/understanding the Historical Peninsula of Istanbul	<ul style="list-style-type: none"> • Sketch • Jury 	<ul style="list-style-type: none"> • Abstract thinking • Exploring environment • Recognition • Self-expression and communication • Establishing relations • Historical environment awareness 	

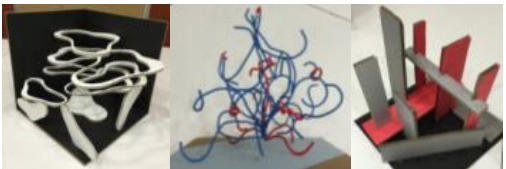
The aim of this experience was to ensure that the students recognize environmental images to re-learn their environments. The experience shows the importance of the sightseeing activities providing both formal and informal information for the design education. The students prepared posters for the places documented with photographs and various drawings and therefore, strengthened their visual skills and gained expression and communication skills.

Experience 03:

PROBLEM	METHOD	GAIN	STUDENT WORKS
Creating a 2D structure based on a concept from a fairy tale	<ul style="list-style-type: none"> • Text - Form Relation method 	<ul style="list-style-type: none"> • Abstract thinking • Recognizing and using concepts • Critical thinking • Association of ideas • Concept development 	


The students were asked to read fairy tales and create 2D compositions by developing a concept inspired from the fairy tales. This experience was expected to help the students with their inspiration problem.

Experience 04:

PROBLEM	METHOD	GAIN	STUDENT WORKS
Creating a 3D structure by listening a melody	<ul style="list-style-type: none"> • Music - Form Relation method • Jury 	<ul style="list-style-type: none"> • Abstract thinking • Recognizing and using concepts • Critical thinking • Self-expression and communication • Association of ideas • Concept development 	


This process focuses on how music is processed in the minds of the students and experiences how the images created with various associations of ideas are turned into places. The students are considered to strengthen their flexible thinking, questioning, interpretation, concept development and self-expression skills.

Experience 05:

PROBLEM	METHOD	GAIN	STUDENT WORKS
Designing a structure by being inspired from a selected natural pattern	<ul style="list-style-type: none"> • Research • Sketch • Ledoux method • Jury 	<ul style="list-style-type: none"> • Abstract thinking • Exploring environment • Recognizing concepts • Self-expression and communication • Critical thinking • Structure knowledge 	


The students were expected to explore and interpret natural structures. Various animal and plant structures were examined; concepts of load bearing, structure and shell were researched and the students examined the creation of architectural structures using the examined designs.

Experience 06:

PROBLEM	METHOD	GAIN	STUDENT WORKS
Creating Module - Pattern	<ul style="list-style-type: none"> • Sketch • Model • Jury 	<ul style="list-style-type: none"> • Abstract thinking • Recognizing and using concepts • Critical thinking • Self-expression and communication • Structure - Form knowledge 	


This experience was like a continuation of the 5th experience and the students comprehended the part-whole relation and experienced to learn how to reach the whole from the parts. The aim of this practice was to ensure students understand alternative production, the relation between the module and pattern and to create a platform where the students can discuss their ideas with the lecturers by using the jury method.

Experience 07:

PROBLEM	METHOD	GAIN	STUDENT WORKS
Designing an exhibition area comprised of different grades using vertical circulation on an area of 5mx10m	<ul style="list-style-type: none"> • Sketch • Model 	<ul style="list-style-type: none"> • Abstract thinking • Recognizing and using concepts • Critical thinking 	

Both problems focusing on designing with various abstract concepts and practices focusing on venue problems were used. The aim of this experience was to ensure that upper - lower part relation is ensured using platforms designed on vertical and horizontal axes and various architectural circulation elements and the students learned the concepts of grade, floor, upper and lower part and gained the skill to develop solution oriented recommendations.

Experience 08:

PROBLEM	METHOD	GAIN	STUDENT WORKS
Design of a Living Capsule of 50 cubic meters	<ul style="list-style-type: none"> • Sketch • Model • Jury 	<ul style="list-style-type: none"> • Abstract thinking • Recognizing and using concepts • Critical thinking • Self-expression and communication 	

Since the building has 3D features, students were given a m³ problem and expected to comprehend the place from the volumetric aspect and think the architectural from as a whole. Students gained experiences to learn space, volume and form concepts and develop recommendations.

The relation between this model designed with several abstract-concrete problems and based on experience and the design education process can be shown as follows:

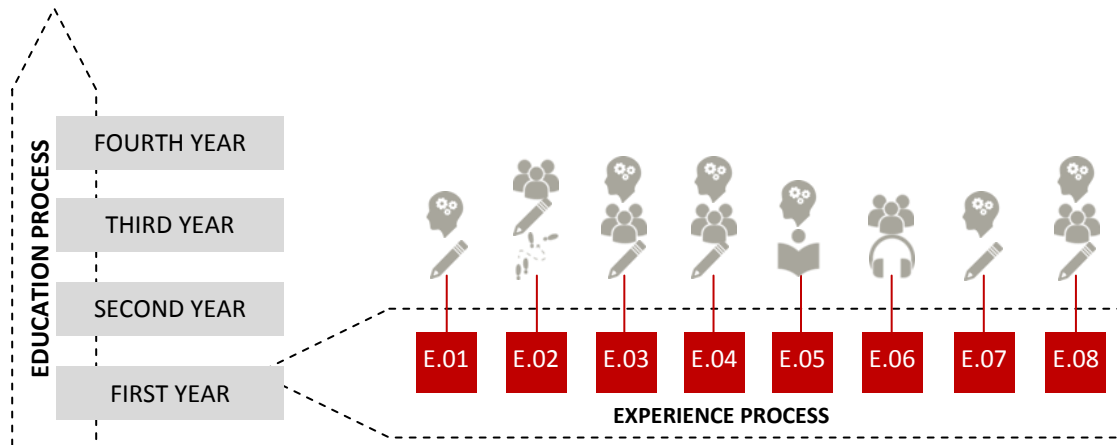


Figure 4. Experience - education process relation for the first year in design education

4. Conclusion and Evaluation

This study presents a studio model which aims the students to experience the process rather than giving information. This model is considered to be of great significance since it ensures the students gain skills of thinking about different problems and creating solution alternatives at the design studios being the focus of the design education. Therefore, especially being required to deal with several problems with the experiences being in the forefront at project-oriented classes help the first year design students to create new situations and develop recommendations for such situations.

The model recommended with this study for the first year of the design education does not teach conventional information to the students but rather focuses on "learn by experience" in parallel with the today's design education approach and always creates experiences that will yield the potential and energy of the students. The design education enriched with the experiences with this model supports creativity and helps students develop the skills of thinking differently, interpreting, comprehending and questioning.

Use of abstract and concrete problems within the scope of the model aims for gaining the students the skills of generating different options by using solution-oriented heuristic approach. The discussion of solution alternatives with the jury is an important step towards developing a

progressive approach with the interaction of the students and the lecturers having experienced similar situations. Moreover, conversion of the design studio experiences into a part of daily life experience with informal sightseeing activities lead to the internalization of the facts and rules related with design.

In conclusion, the first year in the design education is planned with internalization of the design education, trying new and different methods, organizing events and studies increasing student awareness, studies focusing on critical thinking, self-expression experiences and developing of abstract thinking skills and positive feedbacks are received from the students regarding the first year of the design education.

References

- Dewey, J. (1997). *Experience & Education, The Kappa Delta Pi Lecture Series*, A Touchstone Book, New York, USA.
- Ertürk, Z. (1981). *Mimari Tasarlama: Süreçler, Görsel Modeller ve Teknikler Açısından Bir İnceleme*, Trabzon.
- Ertürk, Z., Usta, G., & Usta, A. (1999). *Tasarım Eğitime Başlamada Farklı Model Arayışları*, Arkitekt, 466.
- Shoshi, B., & Oxman, R. (2000). *The Architectural Design Studio: Current Trends And Future Directions*, Design Studio: The Melting Pot Of Architectural Education Conference.
- Schön, D.A. (1984). The Architectural Studio As An Exemplar Of Education For Reflection-In-Action, *Journal of Architectural Education*, 38(1), 2-9.
- Kahvecioğlu, N.P. (2001). *Mimari Tasarım Eğitiminde Bilgi ve Yaratıcılık Etkileşimi*, Doktora Tezi, İTÜ, Fen Bilimleri Enstitüsü, İstanbul.

*** This model explained under this study is used at the Interior Architecture Project 1-2 studio classes of the Department of Interior Architecture and Environmental Design of IKU and these classes are thought by Prof. Dr. Gülay Usta, Lecturer Dr. Armağan Seçil Melikoğlu Eke, Lecturer Tolga Erdem, Research Assistant Derya Adıgüzel Özbek, Research Assistant Ali Kemal Terlemez and Research Assistant Handan Güzelci. We extend our gratitude to them for their contributions to the education process.