

# Communication for the Motivation of First Year Design Education

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## Abstract

This paper aims to emphasize the importance of communication between students and students, students and teachers, and teachers and lecturers on motivation of first year design education. The communication between students and lecturers will be discussed through three different first year lessons of two universities; MSGSU and YTU in Istanbul. The main issue would be to build bridges in between the basic first year courses namely Technical Drawing, Basic Design and Architectural Studio.

The fear of expressing thoughts in lecturers has a negative impact on creativity. The more the communication between the student and the lecturer is, the less the fear of expressing will be. Student who has trouble understanding the lecturer gives up easily and loose the motivation for the lesson at the very beginning of the first semester. Learning the design language and expressing the thoughts by drawing or modeling is quite so hard which usually ends up in the loss of interest of the student in practicing architectural design in the following years. On the other hand, there is a risk for the lecturer to loose too much time with the students who are not intending/ willing to complete the design education at all.

The communication between the students is another point for their motivation. Team work gives more successful results when the group is not more than 12-15 people as there is a better communication and cooperation between the students. Individual learning is sometimes almost impossible when there is not a good communication between the student and the lecturer.

The last point is the communication gap between the lecturers. The communication between the lecturers is important for conceiving the first year design education as a whole. While the students are taught about rules of technical drawing; they are also asked to make models and free hand sketching at the same time in Basic Design. When the students' success is followed by the lecturers of different lessons, it is more possible to find out where the student is stuck; having trouble in expressing or working. Then, the lecturers may help by changing the tools or methods to encourage the students' creativity and expressions and to increase the motivation.

The thoughts about the motivation of the students in the different methods of three lessons will be analyzed. The Design Studio has to incorporate the other two elemental courses of Technical Drawing and Basic Design. The analogy proposed here would be the reading, and writing of technical and basic design information concerning architecture in the studio.

**Conclusion:** first year design education should be designed as a whole in order to evaluate the performance of students at the first year and should be carefully programmed within itself. The first year of design education should be considered as a preparatory period/course where the communication between students and lecturers is more intense in order to keep the motivation up.

**Keywords:** Architecture, First Year Education, Communication, Architectural Design Studio, Basic Design, Technical Drawing, Reading, Writing

## **Introduction**

First year of Architectural education has one of the most complex issues as it tries to convert one's (student's) way of thinking, perception and expressing the world in terms of a different dimension of life: designing.

The issue should be held in stating and then practicing a "language of design" through new methods. Determining this fact through "communication" as a strong notion between the students' and lecturers' relations, can answer the questions raised by why and how this new approach could come into life.

Discussing the problem through different courses from two universities MSFAU (MSGSU) and YTU from Istanbul, strengthens the aim which tries to determine "communication" as a "fact" through education: Technical Drawing in Architecture, Basic Design and Introduction to Architectural Studio are the main obligatory courses of the first year.

These three basic courses which students interact with the language of design through architecture needs to have a sustainable relationship in terms of tools, methods and studio spaces. This sustainability mainly should be based on communication in student-student, student-lecturer and lecturer-lecturer relations. In order to analyze these relations, the scopes, methods and cases of the courses should be discussed.

## **Main Fields of Creating a Language through Communication: Courses/Obligatory Lessons**

### **Basic Design**

#### **Scope of the course**

The scope of the course is to give students Basic Design principles in order to organize or position the structural elements of design. Proximity, symmetry/ asymmetry, repetition, unity, contrast, dynamics, emphasis, and visual hierarchy are some of the principles of Basic Design. These principles are keys for a design that expresses the feeling of completeness, or a well organized composition; they can either be applied to each element of the design or to the composition as a whole. For a successful composition, it is necessary for students to develop a visual awareness through design principles. In this course the students are expected to improve drawing and sketching abilities as well as using the design principles in the process of creation.

#### **The Method**

The course aims to teach the design principles and components of design. Students start practicing the most basic visual components of design; line, shape, tone, color and texture in the beginning of the term and then their works are discussed and criticized in terms of focal point, scale and proportion, balance, contrast, harmony and unity, rhythm, repetition, and variety.

Till 2003; the course was given under the name 'Drawing Techniques and Presentation' by four professors; three from the faculty of fine arts and one from the faculty of architecture. The students were used to study in groups of 12-13 under a professor's guidance. This method was more successful since in a small group, relations between students were more interactive where the students acted more responsible to the tutors and the control of the process was

more possible. While in one group students were studying `color` with water colors another group of students were asked to make a model, as the other group was to draw a perspective of an interior. Both the communication between the student and tutor, and between the students themselves was satisfying as they all worked on the same big desk seeing the others' work and discussing the subject with the professor at the same time. The professor knew every student in his own group and could evaluate not only the students' work but also the process and performance of the student.

After 2003, the course is given by Basic Design team. Now, every student works individually on his/her own desk in a class of 70 people. Similarly, the student starts to practice the elements of design by drawing value of lines and tones, painting color systems, drawing and modeling a three dimensional model of his/her own hand and organizing a two dimensional composition considering the principles of hierarchy, balance and dynamics. In this method; three or four tutors supervises the class talking to students on their works, and watch the process. Student gets critics on his works from all tutors. Their works are evaluated later by all tutors and compared with each other.

At the end of the two semesters students are expected to be able to work on these elements of the basic design and they are supposed to exploit the understanding they received from the course in his/her architectural education and professional life. Understanding and applying design principles is needed for designers, as they are relevant to contemporary design education.

## **Problems**

The critique of students' work is the main method in basic design education. When the student is criticized about his/her work on components of composition like the balance between the elements and orientation of them, proportion, harmony, geometry, rhythm, focal points; he/she gets anxious on not understanding the concepts as he/she has got no previous reading nor background concerning basic design issues. The tutor criticizes the student as if he/she has already has an idea about the principles of composition so the communication between the tutor and the student is cut off/interrupted. Many students give up working for the lesson after this lack of communication. The wording of the critics is another reason to give up the lesson for many students.

- 1- The student cannot tolerate being criticized as he does not know how to benefit from a critic to improve his work or because of the way he is criticized.
- 2- The student cannot understand exactly what he/she is asked to do because he hasn't heard the concepts of basic design before.
- 3- The student understands what he/she is asked but thinks he is incapable or not talented enough to design. He thinks that he cannot achieve by working hard and believes that good sketching or drawing is a genetic ability, and he has to have an artistic vision to be successful in this design course.
- 4- Some students cannot find connection between the course "basic design" and architecture. Many students think that solving technical problems and functions of building is enough for being a good architect and have no aesthetic concerns. Design principles are only necessary for art not for architecture.
- 5- Some students think developing vision through design is not necessary in today's world, where applying is worth more than designing. He doesn't believe that it is a must to sustain his aggregation and design education

6- The tutor spends his/her time by teaching basic knowledge instead of his own profession

## **Technical Drawing in Architecture**

### **Scope of the Course**

The scope of the course is to teach all communicative, expressive techniques and standards through practices. By supplying common acknowledgement in graphical expressions, the course supports other practical disciplines related with architectural design.

### **Method of the Course**

The course is limited by 3 hours teaching each week. Theoretical information is given by both understanding through 3D drawings and by taking notes. Practical teaching eventuates with student's practicing on at least one example of technical drawing cases under the supervision of assistants.

Students are expected,

To visualize the dimensional regulations of objects, the six appearances (projections) of the object and sections of the object on a plane,

To comprehend through basic geometry knowledge and proportion,

To learn using the standard criterions and giving dimensions, scale rules in plans, sections and façades. Scaling and sectioning of stairs is one of the most important chapters in the course.

Perspective and shading learning were the latter main issues in the course. After 2003 they were held in an elective course.

Till 2003 the course was held in two semesters in first year. The program was regulated according to this time period and students used to start learning technical drawing at the same time with other practical disciplines; there was a correlation.

### **Problems**

1. As technical drawing course is only in 2<sup>nd</sup> semester, students are not aware of the fact that they have to decipher the technical expression for the rest of the training.
2. There is a week correlation with other courses. The program of technical drawing is congested in only one term. Practicing only in one semester is not enough for giving all information so there should be an interaction with the other courses.
3. In order to prosper in technical drawing, students needs a definite time to penetrate the new way of perception.
4. Theoretical part of the course should be connected with basic design and architectural studio in order to make students perceive and define much better.
5. Student-Lecturer relationship is becoming weak during transferring theoretical part. Concentration and care loss is observed. Course should be interactive; students should practice not only individually but by practicing on the screen board as well.
6. Group study is not especially needed for technical drawing because correction is one of the most important facts in this course. Tutors are dealing with students' individual works,

besides one's expounding a difficulty or a problem in the class helps other students be aware of the matter instantly.

7. 3D modeling should be exercised by not only tutors' explaining exercises but also students' interaction through using computers in the course instantly. However as the course is organized due to previous (program for two semester) program, there is not enough time for new solutions and experiences.

8. Technical drawing should not be considered only as a "technical" item which presents the standardized international system. It surely is using the knowledge of notions such as 3D perception, scale and visualizing and practicing which emerges in the huge domains of intersection with basic design and architectural studios. Technical drawing as an obligatory first year course has an impact on students which can be described as a "plea of necessity". However in 2<sup>nd</sup> or 3<sup>rd</sup> years, when they have to use the technical drawing tools, they draw without making any selections in 3D considering either structural elements or materials or overlays. Their drawing became a one layered vision that has no depth, no value in differentiating and in representing.

## **Introduction to Architectural Studio**

### **Scope of the course**

Introduction to Architectural Studio in Yıldız Technical University is a compulsory course students have to take in their first term of architectural education. The course's content includes themes like architectural culture, presentation techniques, techniques of architectural analysis, observing the environment, practices on gaining the ability to evaluate the environmental values, architectural design process, and general knowledge on construction. Course's objective includes emphasizing the significance of architectural presentation techniques; developing skills in problem solving in design process and improving the ability to perceive cultural differences. The outcomes expected from this course include developing skills in documentation, analysis and interpretation, and improving the ability and knowledge to benefit from architectural elements in problem solving.

### **The Method**

Until the fall term of 2007 the course Introduction to Architecture course was based on a method of rather a classical method of getting architectural students to start dealing with architectural problems. This method is based mainly on how we perceive the architectural space and how we can represent it in terms of drawing and presentation techniques. From this term on, the supervision of this course is appointed to the division of Computational Architecture and its method has been completely restructured.

The fifteen week long flow of the syllabus is opened with a two week long introductory module for the students of architecture to get them familiar with the architectural education medium and culture. The approach that intends to construct the cognitive structure of the design studio in the architectural education builds an analogy of the concepts of place, time and space with that of reading and writing. In this approach, to make the students become familiar and get them started with architecture the studio course is configured in three modules:

PLACE / reading: observation, experiencing, building up awareness, coordination in between the eye, the hand and the brain, taking notes, recording

TIME / writing: analysis, thinking, abstraction, revealing the existing relations and ideas, visual explanation and representation

SPACE / designing building up new relations and systems.

Those skills are aimed to be given to the students in consecutive steps with in the studio by the help of movies, discussions and readings. Each module is accomplished by a jury session that assets the works of the students.

The method introduced by the new supervisors of the course consists of reading, writing, and designing the architectural space. First year students, considered as tabula-rasa in their knowledge in architecture are encouraged first to look and see their position in the architectural environment. In the first four weeks they are not required to express anything but to receive, collect and conserve what they've experienced in every day life. Istanbul with its seamless historical and architectural background is thought to provide almost a perfect laboratory to test students' data collection on architecture and they have been offered excursions to different places in the city. So they have experienced the city in the 4 out of 8 studio sessions in the first 4 weeks.

When they were at the studio they were introduced with some recording techniques like quick sketching in which they were shown slides of contemporary architectural images and were asked to draw and express the main characteristic of the images they see within six, four, and two minutes. Regardless of their representational abilities this exercise aimed to make them see that the thing that really mattered was not the actual state of things but how they perceived it and made it visible to others as well. In addition, they were asked to draw cognitive maps of their journey to come from their home to school. They were told to do it without the help of the words but with that of the graphic materials instead. It was an exercise to make them see that words are not the only instrument to articulate what we want to express.

The next part of the course syllabus is structured under the theme of writing. In this part that lasted for 4 weeks the method was based on the rule based design. Different from the basic design issues, this module of the course is intended to make students see that within a given set of components, they can build up a series of rules with geometrical operations like adding, subtracting, rotating, and mirroring, that generates abstract forms and spaces. In the final module based on the theme designing the students are asked to make a simple and small design for a certain part of a selected settlement.

### **Problems**

- 1- The main problem of the course is the evaluation of the student works for the products are highly autonomous and references for evaluation requires intuitive knowledge of architecture.
- 2- Rule based design and understanding the existing relations and building new ones are not enough to give an idea of the place specificness aspect of architectural design.

### **Common Difficulties/ Cases In and Between Courses: Lack of Communication**

Today, students are in integration with post-modern approaches in every field of life. In terms of communicating with lecturers, these approaches create a gap with the early modernist

methods, which we might say has a renewal only in terms of using tools but not the language itself. However, for example the links/interactions and the process/experiencing at most became the most effective inputs in teaching nowadays.

- Creating a common language in training is a must in architecture and design education.
- Students' should have an idea about design education in high-school and be conscious in choosing the field architecture. The lecturer motivation decreases when he/she meets students who have no pre-education about design. The lack of communication decreases both the students' and teachers' motivation.

The course Architectural Studio 1 starts at fifth semester in MSGSU. Student takes the course architectural studio after one year he/she completed the courses technical drawing and basic design and cannot put into practice what they have learnt in the following courses.

## **Suggestions**

### **Student-Student**

- Knowledge and data transfer between students should work in an efficient system; providing common physical and virtual informational spaces between first year and upper grade students. Universities and student dormitories should provide available spaces for architectural students from different grades so that they can work together and learn from each other.
- Both the first year students of architecture and fine arts departments should have common basic design course sharing the same studio.
- Common workshops for first year architecture students of different universities may help improve the motivation and communication of the students from different universities. The universities can make organizations for such participation of students at the first year.

### **Student-Lecturer**

- The lecturers should attend other studios periodically for following the efficiency in students' performance and the quality of interactions between the studio works.
- The number of students the tutor guides should decrease, so that the tutor can deal with every student personally and will have much more time to communicate with them.
- Studio courses with small groups can provide better communication between the student and the lecturer and will encourage teamwork and increase the motivation.
- The lecturers and students should agree on definable criteria for evaluation so that the work of the student can be explained and criticized objectively.
- Lecturers can renew their lecture-notes by qualifying each year's experience based on interaction with students.
- Some of the first year courses can begin with original text selections. As students don't pay attention on reading, they are slow in creating genuine ideas; they don't have enough desire for exploring new practices and solutions instead they show resistance. We can observe a tendency towards using deficient solutions; there should be both common and specialized reading references for students at the very beginning of each term so there can be a consensus on some basic terms and concepts.
- The educators and tutors should agree on what they exactly want from students. Some of them do not accept computer-aided drawings while some do. While some of them insist on technical details, for others good sketching or a good idea is satisfying. The student is

not aware that he has to adapt both the rules of technical drawing and principles of design in architectural studio.

- The way of criticizing shouldn't decrease the motivation of the student. The tutor should be careful with the limits of criticism.
- The flow of information and symbols are so fast today that the students want to finalize their work and design as soon as possible. They have to be assured to slow down for understanding design principles and communicating better in contemporary design world.

### **Lecturer - lecturer**

- Similar references using some specific exercises concerning both Technical Drawing and Basic Design through Architectural Studio1 can be utilized.
- The tutor can sometimes attend other studio courses as a guest tutor, so he can observe the communicational deficiencies better in another course.
- Motivating students' taking elective courses about drawing and modeling on the first semester can be effective on sustaining the communication and effecting performances in positive direction.
- Analyzing the works at the end of semester should end up not only by exhibitions but sessions of critics as well.
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### **CONCLUSION**

This study puts the importance of communication for the motivation of both students and lecturers clearly and offers suggestions for overcoming the difficulties. Intense communication is especially needed in first year education for achieving sustainability in any kind of design education and professional life. First year education in architecture plays a key role to pop-up the awareness of the fact that there exists a special way of seeing, understanding and practicing in architecture.

Architectural teaching methods/education could not be far from its real matter/issue of today's theoretical and practical approaches.

The tutors of technical drawing and basic design course should attend the architectural studio critics and manipulating the knowledge from both of the courses to architectural studio should be discussed.

Introduction to Architectural Design Studio is the course where students use all the architectonic grammatical data they collect from The Basic Design and Technical Drawing courses to start communicating within a language system that is totally new to freshman year students of architecture. To learn to speak that language is only one leg of the students' challenge. To learn to play within its patterns and set of rules to create their own language of architecture is an other issue that is not less significant than the first. In this long and though journey, building up a decent communicative medium in between the curricular components, lecturers, and course references seems to be a motivating tool for the first year students.