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A CRITICAL APPROACH TO DISTANCE EDUCATION FROM THE PERSPECTIVE OF THE ARCHITECTURAL STUDIO INSTRUCTORS

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ABSTRACT

The discipline of architecture is a phenomenon that has existed since the beginning of human existence and is constantly evolving. Within the scope of this study, the discipline of architecture has been examined from the perspective of education, and the study aims to discuss the relevant effects of the pandemic in recent years. Architectural education has design studio courses at its centre and the curriculum is structured holistically with other applied and theoretical courses. Studios are active spaces where students engage intellectually and socially, and switch between analytical, synthetic and evaluative ways of thinking in different activities such as drawing, making models or discussing ideas. With Covid-19 pandemic, education has been suspended all over the world as of 2020. After a while, in order not to hamper education, online or hybrid education systems were introduced in all classes. Although architectural education can keep up with the changes and renew itself over the years, it encountered many problems during this radical process. The students, who were in one-to-one contact and bilateral dialogue with the instructor of the course in the studio environment, have not been able to carry out the process of experimenting, thinking, intuiting and doing in the studio together with the instructor which is the cornerstone of architectural education. In this context, the positive and negative situations experienced in the studio classes of the architecture departments during Covid-19 period were examined from the perspective of the studio instructors. This research aims to create a critical perspective on distance and hybrid education through the experience of the studio instructor.

Key Words: Architectural Education; Distance Education; Hybrid Education; Architectural Studio; Covid 19.

INTRODUCTION

The concept of architecture reaches back to the earliest periods of humanity, and according to Turkish Language Association - TDK, it is defined as "the art of making structures in compliance with certain measures and rules" (TDK, 2019). Social structure changes, economic conjuncture and social events have led the profession of architecture to evolve into a different direction. The discipline, which went into privatization especially as a result of the agricultural revolution, gained a new meaning after being separated from civil engineering with the Industrial Revolution (Şensoy & Yamaçlı, 2015). Within the scope of this study, the discipline of architecture has been evaluated from the perspective of education and the effects of the pandemic which has emerged in the last two years and still continue have been discussed.

Almost everything has changed due to the Covid-19 global pandemic which has impacted the whole world since December-2019. The education system was also affected by this change and architectural education was carried on in different ways. Events that disrupted education in the world history were wars, terrorist incidents, natural disasters, diseases and epidemics (Kahraman, 2020). In situations that may affect the health of students, such as diseases or epidemics, all necessary precautions should be taken and the continuation of education without interruption should be ensured. At this point, different solutions have been developed for the continuity of education. With the introduction of hybrid and distance education models in universities, it is aimed to ensure the continuity of education. In the statements made periodically by the Higher Education Institution in our country, the necessity of taking regional and local decisions was emphasized due to the dynamic structure of the pandemic and infrastructure studies were intensified in order to carry on education through distance education model. While formal education was supported at a rate of 40% in June 2020, the need to bring down the number of students at campuses and reduce mobility was taken into consideration in October 2020. As a result, while many universities have implemented the full-time distance education model, some universities have applied hybrid models in which distance and formal education are carried out together.

The studio instructors present the subjects of this study which focuses on identifying positive and negative situations experienced in the remote implementation of architectural studio courses. In this context, a pilot study was carried out with fifteen studio instructors from different universities that implement the distance and hybrid education model. Open-ended questions were prepared by taking into consideration the responsibilities of studio instructors in architectural education (Aydınlı, 2001), the phases of the concept of distance education (Moore and Kearsley, 2012), time, space, teacher-student role and technology criteria (Gökmen, Duman, & Horzum, 2016). These questions were sent to the instructors. Afterwards, the obtained written and verbal data was evaluated within the scope of the determined criteria.

This study, which examines the discipline of architecture in the context of education, first reviews architectural education models. Afterwards, the

Politics/ Policies/ Laws/ Regulations/ Ethics

Human/ Behavior

Technology/ Material/ Sustainability

Philosophy/ Theory/ History/ Discourse

Criticism/ Method

Identity/ Culture/ Tradition

Urban/ City/ Landscape/ Rural

Design

Interior Design

Conservation/ Transformation/ Re-use

Education

Arts/ Aesthetics

distance education model, which is being applied in today's changing circumstances, is explained. In line with the information obtained in the literature, the findings and results of the pilot study are presented.

Traditional Architecture Education

The basic strategy of architectural education is to complete the learning-teaching process by creating new ideas, information and products with the experiences gained over time. In addition, the aim of architectural education can be defined as presenting different design experiences, taking an active role in different areas of design, facilitating information acquisition and change processes, preparing a strong communication and motivation environment, and guiding students with different cognitive/intellectual characteristics (Kahvecioğlu Paker, 2007).

Throughout architectural education, the act of design and the theoretical information that supports it, constitute the basic setup. In particular, design education is very different from the education form in other disciplines. At this point, design education consists of different mental stages. In these mental stages, the individual learns by experimenting, thinking, sensing and applying. The form of education is not limited only with the act of learning-teaching. During this education process, it is expected from the student to come up with a new, original, different and creative product and to live various experiences in order to imagine, develop new ideas and turn them into action while achieving this product (Özdemir, 2013). The aim of architectural education is to provide the architect candidates with the ability to learn, research, express, be open to criticism, and to reach positive results in discussions and to organize. Every architecture student should be trained to be open-minded, to be able to use new advances in technology and to be creative on the basis of professional knowledge, to have a design understanding fed by social sciences and a wealth of theoretical infrastructure" (Nalçakan, 2008).

At this point, it would be appropriate to examine the development of architectural education in order to better understand the "studio education", which constitutes the main fiction of the study.

When we look at the history of architectural education, "Ecoledes Beaux-Arts" is known as the first long-established architecture school. The classical Beaux-Arts curriculum is divided into three groups as workshops, classes and competitions (monthly and annual). The method of learning by seeing and doing is applied in the workshops that create the education structure of this school, technical and theoretical information is given in the classrooms. The quality of the student's education is strengthened with monthly and annual competitions and conferences (Mun, 2015). Another important school of architecture and design education is the Bauhaus school. The most important feature that distinguishes the Bauhaus school from Beaux-Arts is its program which helps the students to bring themselves into the forefront, frees them from conditioning and triggers creativity. In order to avoid traditional academy education, technical and history courses are reduced to a lesser extent. In addition, the curriculum changes frequently in

line with the changing design understandings and approaches (Demirci, 2019). It has been observed in Ecole des Beaux-Arts and Bauhaus schools that architectural education changes, transforms and develops in accordance with the conditions and understanding of the period. This flexibility and actualness of architectural education have survived to the present day. Especially Bauhaus introduced an innovative and rational perspective to design and architectural education in the 20th century. In this context, the fact that students and teachers continue education by producing continuously together has also affected our country. Middle East Technical University - METU, Faculty of Architecture followed and applied this approach in the years it was founded, and then it could not fully adhere to it, due to different political situations (Erzen, 2009).

Architectural design education components in our country consist of three different actors, namely the design studio, the project coordinator and the student. At this point, we can say that design education is based on the design studios and it uses these studios as the main space. A theoretical course; expires, its use ends, after it is processed in the classroom. However, in design studios, the effective training process covers a large period of time (Özdemir, 2013). In many universities, eight hours a day are reserved for classes, and it is expected from the student and the instructor to actively use the whole day in the studio. Especially in design education, there is a decision-making process that progresses gradually. In this context, in the expression of ideas; sketches, models, two-three-dimensional expressions and contemporary presentation forms using computer techniques are used. Throughout this gradual process, there is an uninterrupted interaction between the student and the instructor in studios, based on the integration of knowledge and project review, through individual or intergroup interaction (Gül, 2016). There is a master/apprentice relationship in the form of education that takes place between the student and the project coordinator and is maintained through the dialogue established for the project prepared by the student (Ciravoğlu, 2001). In traditional education, design studio covers a process that has a specific route. The guidance provided by the master/instructor with his knowledge and professional identity becomes an applied experiment (Kahvecioğlu Paker, 2007). At this point, Aydınlı defines the role of the project coordinator as follows:

- to emphasize to the student that the main goal is to gain the ability to organize the information during the design process,

- to guide the student in the correct way in solving the design problem,

- to underline the importance of noticing and being aware of the problems, as much as solving them and therefore first establishing a dialogue between the visual and verbal language of architecture and discussing the observed facts with the language of architecture profession,

- to motivate the student to accumulate knowledge through sensory and cognitive processing,

- to help the student understand what he wants to achieve and what he is striving for, in other words, understand his own individual values, beliefs, views and priorities,

- to be able to inspire the student to learn,

- to apply the analysis-synthesis method with a scientific approach, thus enable the student to think analytically, to interpret with imagination, to synthesize with value judgements and to be open to criticism,

- to enable the students to see the problem in part-whole correlation and bring solutions, comprehend the relations and to motivate the student to organize and systematize the knowledge obtained in all lessons (Aydınlı, 2001).

In traditional education, the studio instructor is one of the main actors. In the distance education model, the role of the instructor continues in a similar way. At this point, for distance education model, the contribution of the instructor to the education process with positive-negative experiences is considered important.

Architectural Education through Distance and Hybrid Method

Distance education is an innovative education system that takes place in completely virtual environments, independent of time and place, where the learner and the instructor do not have to come together (Kahraman, 2020). Distance education is a concept that we are familiar with before the COVID-19 pandemic. Looking at the history of this concept in the world, it was first mentioned in the 1892 catalogue of the University of Wisconsin and William Lightty used this term for the first time in one of his article in 1906 (Adıyaman, 2002; Avcı and Akdeniz, 2021).

This concept has been defined in many different ways over the years. According to Peters (1973), distance education is a method in which knowledge-skills are gained, division of labor practices are rationalized, technical methods are used to provide high quality teaching materials and these materials are delivered to a large number of students living in different places. According to Moore (1990), it includes all the arrangements in which teachers and students are at different times and places, and where education is offered to individuals through printed or electronic communication methods in a planned learning environment (Gökmen, Duman, & Horzum, 2016).

In the book titled "Distance Education: A Systems View of Online Learning" by Moore and Kearsley, published in the third edition in 2012, it is mentioned that distance education consists of five phases:

• **Phase One (Letter Teaching):** Education supports independent and individual work through remote letter and home studies. There is no interaction.

- **Second Stage (Radio and Television Broadcasting):** In this stage, where visual and audio elements are included, there is little or no interaction.
- **Third Phase (Open Education Institutions):** Interaction is still low in this phase, which brings an industrial system approach to this period. Distance education is supported by face-to-face education with the use of visuals and videos, and course teams and courses are designed with a system approach.
- **Phase Four (Teleconferencing):** It is the beginning of the real-time interaction between the learner-learner and the learner-teacher for the first time in distance education, through interactive teleconferences, with the use of audio, video and computer.
- **Fifth Phase (Internet and Web):** In this phase, online internet-based virtual courses are given with the constructivist learning method. There is interaction in this system which brings together text, audio and video on a single platform.

Many different alternative models have been started to be used with the active use of internet systems in the process from the letter teaching model where there is no interaction between the instructor and the student, up to the present. Today, with the use of programs such as Microsoft Teams, Zoom and Perculus, the simultaneous live participation of the instructor and the student is ensured and two-way communication is improved effectively.

In the article titled "Theories, changes and new trends in distance education" published by Gökmen, Duman and Horzum in 2016, the change and transformation introduced by Moore and Kearsley through the five phases of distance education is defined with four criteria, as "time, space, the role of teacher-student and technology".

In the period of distance education done by letter, the fact that students have the opportunity to learn at any time they want, brings with it the lack of interaction. Since the materials come to the student's home or workplace by mail, these places usually become the learning spaces. Students are free to take these materials wherever they want. With the arrival and development of audio and video, communication and interaction with the teacher begins. Especially with the development of technological tools, the interaction between the teacher and the student has improved. Besides, simultaneous or, when desired, asynchronous distance education opportunity was ensured. In simultaneous learning styles, the learning place becomes any place where there is internet connection. Therefore the space dimension is defined as unlimited.

Since web-based systems have unique features, thanks to these systems, the instructors are no longer the only source of information. The instructors have taken on many roles such as resource provider, learning manager, instructional designer, assessment specialist, communication expert, technologist, consultant and mentor. In this process, students have become more active and gained roles such as acquiring, creating and sharing knowledge, determining learning goals, being responsible for their own learning, according to their own pace, choosing the content, interacting with

the content, the teacher and the learners, and accomplishing simultaneous communication. Furthermore, technology has enabled the student to work in collaboration with the group in distance education. Today, distance education is used as a form of education in which interaction between the student and the teacher is ensured by the use of many different applications based on technology.

A model in which formal and distance education models are applied together has been developed in universities that have not fully adopted distance education. Hybrid education has been designed as a new model that aims to minimize student mobility and provides education both online and in the classroom environment. In this model, depending on the request of the student who wants to participate in the lesson, classes can be held in the classroom environment, by observing social distance rules, or it is possible to follow up the lesson online simultaneously. Especially the instructors using the distance-hybrid education model stated that they conducted the theoretical courses remotely and the studio courses with the hybrid model.

In this context, a series of questions has been prepared in order to determine the positive and negative experiences of architectural studio instructors in universities where distance and hybrid education models are used. Within the scope of the study, the instructors were asked open-ended questions. These questions were prepared by taking into consideration the criteria obtained from the definitions made by Aydınlı (2021) of the studio instructors' duties in architectural education; phases of the distance education concept introduced by Moore and Kearsley (2012); and the change of these phases over the years by Gökmen, Duman and Horzum (2016).

Findings

After six open-ended questions were designed, questions were sent to fifteen architectural studio instructors. At this point, the answers obtained through written and audio recordings were collected in a common pool. In this section, given answers and the evaluation of these answers are presented.

Fifteen studio instructors, three of whom work at more than one university, were first asked which education model they used. At this point, seven instructors stated that they used the distance education model completely, and eight instructors stated that they used the distance and hybrid education model together.

According to the evaluation made on the programs used for studio lessons, it is observed that a wide perspective of programs, such as Perculus, Zoom, Adobe Connect, Microsoft Teams, Google Meet, Mergen, Miro and Blackboard are used. In the evaluation of the positive and negative situations experienced, the first thing that stands out is the reluctance of the students to open audio and video. This issue on which all instructors agree, has been the subject of criticism, because the lesson became inefficient and

far from interaction. The instructors attach importance to video-audio participation in order to ensure eye contact and better comprehension. However, the student's resistance, from the perspective of the instructor, was interpreted as the students were dealing with different tasks simultaneously and did not care enough about the seriousness of the lesson. It was stated that the efficiency of the lesson decreased because the students did not want to talk, they listened the critics on their own projects but did not listen to the critics about other projects.

Another negative situation was the difficulties encountered, time to time, in communication, due to delay and synchronization problems in audio-screen sharing. Especially in Perculus system, problems such as having too many connection problems, difficulties students had in adjusting the camera settings and delays were stated as the negative aspects of the application. Since Perculus did not provide the opportunity to get closer, it was difficult to go into the details of the projects and, in particular, the perception of the scale concept was struggling. The fact that there is a size limit for uploading files in Perculus application has created problems in uploading architectural project sheets with very large files. It was stated that the project instructors, like the students, were adversely affected due to the files that could not be uploaded.

On the other hand, it was stated that Microsoft Teams application provides convenience in use due to its more stable interface. This application was used effectively in order to provide extracurricular interaction and share resources and content for first graders who were trying to adapt to university education.

It has been stated that technical problems were faced in Zoom and Miro applications such as sound interruption and image freezing. As a general assessment, while it is difficult for everyone to see the project critique at the same time in traditional education, it has been considered as a positive situation that many students could see the screen and listen to gap assessments at the same time in virtual environment.

Studio instructors were asked to evaluate their positive and negative experiences with regard to "internet quality, electricity, equipment quality, and tools". In general, it is observed that all instructors complain about the disconnections in the internet system. This situation caused the lectures to be told over and over again, therefore the general flow of the course could not be achieved. In addition, connection quality is seen as one of the factors affecting the flow of the course. Especially in cases where audio and video communication was required, poor connection quality led to negative situations. Audio interruptions and the image not showing on the screen distracted both the teacher and the student, and it was stated that this situation turned into a source of stress.

In addition, not every student has equal conditions in terms of technical equipment. This situation was also causing problems. Students who attend classes from rural areas or abroad had difficulties in managing the process.

Another technical problem was the insufficient performance of the computers. Especially, simultaneous camera opening or uploading very

large files caused problems in the computer system. In addition, in terms of equipment, adhering to a few specific line types by using only the mouse was also not considered appropriate for the project dynamics.

Concerning negative situations experienced due to technical problems, the importance of planning and equipment support by institutions was particularly underlined. There is a positive opinion that over time, both the instructor and the student will adopt this new form of education and that appropriate technical opportunities will be provided.

The instructors were asked which places they used during distance education process and they were asked to compare these places with the studio use in traditional education. In this evaluation, it was observed that especially in the hybrid education model, the trainers continued the lessons in the studios, and some of them continued education in their own private offices. However, in institutions where there is no obligation to come to school, generally the instructors who continued education from their own homes, in their study rooms, expressed their opinions. At this point, it is stated that students who come to the studio in hybrid education can use much larger areas than they use in normal conditions. However, it was stated that the incoming students preferred to be only listeners instead of using the studio actively, so the studios functioned as "recording studios" rather than their previous use. At the same time, it was stated that the bilateral dialogue of the students with each other decreased and therefore interaction could not be established. For the most part, students' criticism to each other and their support for each other in technical and design issues constitute the dynamic that exists in design studios. However, one of the most important missing points in the online process was expressed as the inability to interact.

The evaluation of the studio instructor about how online or hybrid education affects his motivation was another question. Most of the instructors stated that the motivation decreased especially over time. The instructors who tried to get used to the new system at first, afterwards even if they got used to the system, stated that their motivation was negatively affected due to unfavourable reasons such as; the lack of interaction with the student, the lack of feedback from the student, technical problems, contacting the student via e-mail when faced with technical problems, eye pain and inactivity due to the need to constantly look at the screen, the pressure from the institution to fill the given course time when participation in the lesson is low and trying to communicate with the student who came to the studio and at the same time with the student who participated remotely.

However, some studio instructors, even they were a few, looked at the positive aspects of the situation and made positive comments about their motivation. They stated that reduction in paper waste, not wasting time on transport, accessing lessons from anywhere in the world, communicating quickly with files, sharing links and images from the internet simultaneously had positive effects on their motivation.

Lastly, the studio instructors were asked to make a positive and negative comparison between the traditional education model and the online and

hybrid education model. In general, the instructors stated that the concepts of "making together", "learning together" and "discussing together" can be realized in the studio environment with students. However, they stated that this is not possible with distance education and that the courses are carried out within the limits of online programs. One of the studio instructors expressed: "In distance education, the student presents, the instructor lists the critics, and then the student adds something, it proceeds in this sequence. But when we are face to face, it is more efficient to draw together, think about it together and generate ideas together at that moment."

One of the problems faced in distance education is that teachers working in public universities complain that the institution does not provide them with sufficient equipment. Even though there are institutions that provide adequate equipment, the online system is a newly used method, so integrating the equipment into architectural education has been insufficient. In traditional education, studio lessons are conducted with methods such as body language, tone of voice, mimics, simultaneous hand drawing and expression. But the inadequacies experienced with distance and hybrid education in studio lessons have caused a lack of communication, interaction and meaning between the students and the instructor.

One of the advantages of distance education is that the student who is not physically present at the school does not have expenses such as travel, accommodation, food and beverage, and printing out the layout. In addition, it was stated that the student physically gets less tired and saves time because he does not spend time on the road. However, students who live with crowded families and do not have their own private space experience space problems in terms of attending classes and using a study area. Yet, with the use of studios in traditional education, everyone is provided with an equal working space.

As mentioned before, according to the general opinion of the instructors, students can easily see each other's projects in the computer environment and they can listen to the critics again after the lessons are recorded. However, it has been stated that this positive point of view was not always right. It was stated that, in cases where the student was not interested in the lesson, he only listened to his own project critique or he did not attend the live lesson, because he knew that the lesson was being recorded. It was stated that this situation negatively affected the student's continuous participation in the lesson and his concentration in the lesson.

When the answers given to all questions were examined, it was seen that some studio instructors gave completely opposite answers to the same questions. One of the most obvious of these has taken its place in the last question. While one of the studio instructors responded to the comparison regarding the two education models: "I think these two are not even in a position to be compared with each other"; another instructor defined the distance education model as "the beginning of a process". This situation is considered important in this study in terms of ensuring the diversity of opinions.

CONCLUSION

This study has been conducted in order to determine the positive and negative experiences of architectural studio lecturers, who are one of the important subjects of the distance-hybrid education model that emerged during the Covid-19 pandemic. Studies carried out by universities through questionnaires aim at identifying the problems experienced by the students in the process. This study, on the other hand, bases its originality on the positive and negative experiences of the studio lecturers. In general, the data emerging from the findings indicate a negative picture. The inability to use the studios, which was actively used by the student-instructor, led to the decrease in interaction and dialogue. Consequently, the required efficiency from the lessons could not be ensured. Only a few of the fifteen instructors were satisfied with the process, but they also had difficulties at some points. In this context, the adaptability of the distance-hybrid education system to architectural studio education without the necessary equipment support should be a matter of discussion. Especially in technical issues, many problems were encountered both by the instructors and the students. In addition, it is the common opinion of all the instructors that it was not sufficient for the students to receive the critics online, in terms of understanding and applying them. Furthermore, it is observed that in the hybrid system the instructor has difficulty in coordinating the students who attend the lesson face-to-face and who participate remotely. At this point, taking into account many factors, conducting architectural studio education online and hybrid, can be considered as a difficult way. It is hoped that the data, which is intended to be a critical view of distance education from the perspective of the studio instructor, would be a reference source for future studies. Moreover, this subject, which is aimed to be examined by conducting more in-depth interviews in the following stages, is considered important in terms of presenting a new perspective to education.

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