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Research Article

AN ALTERNATIVE ARCHITECTURE GRADUATE COURSE CONDUCTED THROUGH DISTANCE EDUCATION AND ITS EFFECTS ON STUDENT LEARNING PROCESS

Mehmet ŞENER[*], Mehtap ÖZBAYRAKTAR[**], Neslihan TÜRKMENOĞLU BAYRAKTAR[***]

Abstract

A multidisciplinary atelier course conducted through distance education in Kocaeli University Faculty of Architecture Graduate Program in 2020/21 Fall Semester is analyzed in this article concerning the impacts of the alternative and versatile methods followed during the course process on student learning achievement. The aim is to reveal the new pedagogical visions and contributions that the methods of this course can provide to student learning and instructor intervention in architecture graduate education. During the course, the stages of determining the workshop groups, discussing the activities with the groups, and developing suggestions, conducting discussions in the distance education environment on the students' study subjects and activity plans, and delivering the final report based on the activity week process and the products obtained were carried out. The required data, including the evidence of actual learning achievement in this course, is derived from a catechetical survey with 12 students who took the course, while the final statements and inferences of the study are based on the achievements and critics of these students about the course. The results obtained from this survey are reciprocally evaluated with the learning achievement targets that are placed in the course syllabus at the beginning of the semester with concrete numerical values to observe the level of achievement of these learning targets. The learning achievements that students gained most apart from the determined learning achievement targets of the course are the development of presentation abilities of students, the provision of exchange of ideas with students from different departments and with the lecturers apart from their thesis advisors, and the possibility of following the processes of different work items. The findings of this study express that the program and the methods of this course can be instructive for implementing new approaches in post-pandemic distance and face-to-face education of architecture in graduate programs.

Keywords: Alternative distance education; Multidisciplinary atelier course, Architecture graduate education; Flexible/Adaptable master's course

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Araştırma Makalesi

UZAKTAN EĞİTİM İLE YÜRÜTÜLEN ALTERNATİF BİR MİMARLIK LİSANSÜSTÜ DERSİ VE ÖĞRENCİNİN ÖĞRENME SÜRECİNE DERSİN ETKİLERİ

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Öz

Bu makalede, Kocaeli Üniversitesi Mimarlık Fakültesi Yüksek Lisans Programı'nda 2020/21 Öğretim Yılı Güz Yarıyılında uzaktan eğitim yoluyla gerçekleştirilen multidisipliner bir atölye dersi ve dersin yürütülmesi sürecinde izlenen alternatif ve çok yönlü yöntemler, öğrencinin öğrenme başarısına etkisi bağlamında incelenmektedir. Bu derste izlenen yöntemlerin mimarlık lisansüstü eğitiminde öğrencinin öğrenmesine ve eğitmenin müdahalesine katabileceği yeni pedagojik vizyon ve katkıları ortaya koymak, bu çalışmanın temel amacıdır. Ders sürecinde sırasıyla atölye gruplarının belirlenmesi, gruplar ile etkinliklerin görüşülmesi ve öneriler geliştirilmesi, öğrencilerin çalışma konuları ve etkinlik planları üzerine uzaktan eğitim ortamında tartışmalar yürütülmesi, etkinlik haftası süreci ve elde edilen ürünler üzerinden final raporunun teslimi aşamaları gerçekleştirilmiştir. Derste öğrenme başarısının sağlandığına dair kanıtları içeren veriler, dersi alan 12 öğrenciyle soru-cevap yöntemiyle gerçekleştirilen bir anket ile elde edilmiştir. Öğrenme hedeflerine ulaşma noktasındaki başarı düzeyini gözlemleyebilmek için bu anketten elde edilen sonuçlar ile dönem başında ders izlencesinde yer verilen öğrenme başarı hedefleri karşılıklı olarak değerlendirilmiştir. Dersin belirlenen öğrenme başarı hedefleri dışında, öğrencilerin en çok elde ettiği öğrenme kazanımları; öğrencilerin sunum yeteneklerinin geliştirilmesi, farklı bölümlerdeki öğrencilerle ve tez danışmanı dışındaki öğretim elemanlarıyla fikir alışverişinin sağlanması ve farklı iş kalemlerinin süreçlerini takip etme olanağı bulmaları olmuştur. Çalışmada ulaşılan bulgu ve sonuçlar, bu dersin programının pandemi sonrası uzaktan ve yüz yüze mimarlık lisansüstü eğitiminde yeni yaklaşımların hayata geçirilmesi için yol gösterici olabileceğini ortaya koymuştur.

Anahtar Sözcükler: *Alternatif uzaktan eğitim; Multidisipliner atölye dersi, Mimarlık lisansüstü eğitimi; Esnek / Uyarlanabilir yüksek lisans dersi*

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INTRODUCTION

Undoubtedly, education has suffered the brunt of the consequences of the COVID-19 pandemic, highlighting the need to reconsider and, if necessary, revise all aspects and dynamics of social life. Education in universities stands out among the education levels where this impact, which has various dimensions and aspects, is felt most seriously and where alternative perspectives or palliative solutions are put forward. In the context of the various disciplines that it includes, the most affected field of education in universities has been architecture due to its unique conditions. Architectural education, which is based on the principle of transferring theoretical and/or applied courses in conceptual and practical fields to students based on technical and critical thinking and design approaches due to its versatility, has become an implementation area to try different forms of education during the pandemic. However, since it is based on original and different educational approaches based on a critical perspective and mutual exchange of ideas, postgraduate architecture education has been subjected to a new approach in which students are tried to gain alternative perspectives instead of a single truth. Various revisions were made in response to this situation. As a result of the literature review, it has been discovered that distance and/or face-to-face education approaches, which can be different or alternative to the online education methods used in undergraduate education, are not implemented in graduate education and importance is given to undergraduate education.

In this context, the theoretical and practical results obtained within the framework of the studies revealed in the 'Master's Atelier 1' course, which was planned and carried out in 2020/21 fall semester of Kocaeli University Department of Architecture, are presented in this article in order to produce an alternative paradigm on which different methods and perspectives can be built in pandemic conditions and post-pandemic education. The main goal of this study is to express and analyze the reflections and effects of how and in which ways the methods and continuity of this course contributed (or not) to student learning achievement. To obtain the necessary data and results for the analysis, a survey consisting of Likert scale, multiple-choice closed-ended and open-ended gap-filling questions was administered to the students who took the course, using the question-and-answer method to reveal the course's content, method, and achievements. Considering that it is a graduate course conducted through distance education, it is planned and expected from students to gain performance and skills in subjects such as adopting scientific attitudes during their graduate education, using critical thinking skills to perform their tasks, and developing solutions to real-life problems, alone or with a group. Accordingly, specific learning achievement targets are formally established in the syllabus, corresponding to the elements necessary for the practical realization of these learning evidences. The questions asked of students in this survey were chosen to test and determine whether these evidences are met when searching the impact of instructor intervention on these issues. The answers and data obtained from this survey are analyzed by comparing learning achievement targets determined in the course program with concrete numerical values and it is observed to what extent these targets have been achieved or not.

LITERATURE REVIEW

Impacts of the Pandemic on Architectural Education

The emergence of the need to conduct distance education all over the world following the pandemic has resulted in a variety of difficulties in university education, as seen in all components of education, as well as the realization of previously unseen possibilities and potential. When the studies of various researchers and experts on these difficulties and benefits are examined collectively, it is observed that the new opportunities provided by technology and the inequalities in accessing technology and negative effects on human psychology constitute a fundamental dichotomy. On the one hand, since it provides a variety of teaching options, several benefits of distance education are expressed, such as offering innovations in remote training carried out with software tools, increasing accessibility regardless of physical location, and being eligible for various forms of education. On the other hand, these studies appear to mention pedagogical and psychological disadvantages such as “increased energy use in buildings, limited access to the internet due to

technological deficiencies, and a student's inability to stay focused on the screen for an extended time, a lack of one-on-one communication, and a lack of interactive learning" (Allu-Kangkum, 2021, pp. 8-9).

The examination of the research and expert's discourse in the field of architectural education shows that the positive and negative aspects that we encounter are largely consistent with these statements. For example, on the Places Journal website (Field Notes, 2020), where architectural educators from around the world discuss their thoughts on the transition to distance education, the most significant problems are stated as 'too rapid transition to digital software and online platforms, difficulties in teaching through digital platforms, loss of face-to-face communication, inequalities in education and concentration problems'. On the same website, the benefits of distance education were highlighted, including 'the possibility of international juries, the potential for online courses to be international, and the pandemic offering a thinking environment'. In this context, various suggestions and approaches for continuous development and change have been proposed (hybrid education system proposal-online and face-to-face, flexible teaching models, re-discussing educational content, etc.). It is seen that in *the Archinect*'s question ('Architecture Deans,' 2020) addressed to the deans of various architecture faculties, in interviews that contain questions and answers on 'how the COVID-19 virus affects architectural education,' titles such as 'social isolation, questioning the education system, positive contributions of new technologies, the importance of the physical studio, the necessity of increasing awareness about inequalities, the proposal of a hybrid education system, the necessity of increasing awareness about climate change, and environmental issues in education' come to the fore. Surveys conducted with academicians and students about the state of architectural education in Türkiye during the pandemic produced results like the rest of the world (Uzaktan Eğitim: Akademisyen 01-02, 2020; Uzaktan Eğitim: Öğrenci 01-02, 2020).

Consequently, architectural education, – in which practical education is more dominant than theoretical education since it includes courses that require common works and pratical application like atelier and design courses – has become an experimental field for different and unique arrangements due to the requirements of the different educational structures it contains.[1] Theoretical lectures revealed that all other university branches used similar distance education approaches with similar positive and negative outcomes. There was a pressing need to find alternative solutions quickly in applied courses, such as architectural projects or workshops, which had never been done before in distance education and posed significant additional challenges, and as a result, various application proposals were brought to these courses in various architecture faculties. A close look at the discussions and publications regarding undergraduate and graduate education in the world of architecture during the second phase of the pandemic reveals that research and studies carried out in the context of 'the positive and negative aspects of online studios, the problems and solution recommendations faced by educators and students in online education, and the new design pedagogy proposals' stand out. While it brought about some difficulties in architectural education, it also created an opportunity to discuss the problems of education and to rethink the ways of learning in daily life. As a result, architectural education has become an experimental field for different and original arrangements.

Architecture Education During the Pandemic Period

Practices and academic research that form the basis for determining the approaches and methods used to focus on the course are examined in this section. As seen in the examples, it is worth noting that, surveys based on the question – answer method conducted with educators and students around the world and in Türkiye are the most widely used method. In the case study conducted by Anwar et al. (2021, pp. 2346 and pp. 2353), in which 20 lecturers and 56 architectural design course students, and 106 elementary design course students participated, based on the question "Is online teaching as efficient as face-to-face education in architectural design studios and basic design studio environments?", it was concluded that "hybrid type

[1] Terms such as 'crisis distance education', 'emergency remote teaching' and 'transitional emergency model' are also used in place of this expression in other related references, as quoted in Varma and Jafri, 2021.

courses can be a solution to the problem, improving the software and hardware infrastructure, and providing online application and software training can increase the quality of education". Elrawy and Abouelmagd (2021, pp. 91,) interviewed 304 students from 17 architecture schools in Egypt to assess the impact of the COVID-19 pandemic on architectural design studios. As a result of the analysis of the responses provided, problem determination and solution suggestions such as the need to provide psychological support and students with software and hardware support have been put forward. According to Asadpour (2021, pp. 522-525), who studied "the problems that students in architectural schools in Iran encounter in online architectural design studios during the COVID-19 period", software applications increase students' active participation in education and partially fill the gap left by the elimination of face-to-face education. In Fleischmann's study (2020, pp. 8-11), the main problems of distance education are expressed by the educators as "increased workload, the inadequacy of technological software in design applications, the difficulties of using microphone and camera for the first time, and the inability to get used to new software." On the other hand, the students stated that, "getting more feedback, more involved with educators, and their satisfaction with the presentations" were the positive factors, and they emphasized that the most significant problems arising from distance education are "lack of motivation, inability to focus, and lack of social interaction."

Beyond determining new situations that emerged during and after the pandemic period, all these studies include new pedagogical approaches for the present and future of undergraduate and graduate education in architecture. Buldan (2021, pp. 63-66), for example, emphasized that "physical distance reduced social interaction" in her paper on the effects of social isolation on studio training. "Supporting group work, organizing studios online by different university groups, and integrating different social media platforms into the online studio" are all suggested in the article as ways to increase social interaction in the online studio environment. Again, in the concluding statements of a survey study (Varma and Jafri, 2021, pp. 199-200) conducted with educators in architecture schools in India on "the platforms, tools, learning and teaching processes of distance education and the future of online and blended education," it is stated that "in the future, the architecture studio will be made online, virtual and blended". According to the study, the blended mode of education combines the benefits of synchronous critique and asynchronous learning and creates the opportunity to collaborate with institutions and professionals across geographies.

Similarly, according to Fleischmann (2020, pp. 5), it is not appropriate to organize all design courses entirely online. Fleischmann proposes a blended learning and teaching mode in which hands-on workshops will be given in a face-to-face setting. The view of the 'hybrid design studio' model gained importance as a result of a survey conducted by Iranmanesh and Onur (2021, pp. 251-267), in which they compared the online and physical design studio training held at the Faculty of Architecture of the Near East University in Turkish Republic of Northern Cyprus. Considerations for 'adopting asynchronous learning and teaching methods, supporting students emotionally, mentally, and financially, and developing a collaborative studio atmosphere' come to the fore in the Architectural Community platform (How the coronavirus pandemic, n.d.), where architecture students and educators from around the world share their perspectives, mostly for design studios. The field data was collected and transferred to the digital environment in the studio and made available for the students' use with Geus's (2020) transfers of the online design studio experience implemented in the Tsinghua University Architecture School Master's program in China, which has similarities with 'Master's Atelier 1' course in terms of method and process. Following the online sessions, the problems were discussed in 'WeChat' groups of 4 or 5 people, and a studio experience was created to increase the students' communication.

AN ALTERNATIVE LEARNING PROCESS: 'MASTER'S ATELIER 1' COURSE

While the 'Master's Atelier 1' course in Kocaeli University Department of Architecture was conducted face-to-face with the advisor of the pre-pandemic course, the structure and content of the course were completely changed by the new instructors for the first time in the fall semester of 2020–2021 during the pandemic period. In this context, the content and the process will be discussed in terms of objectives, methods, and

results of the course and its effects on student learning achievement in this section. This course, which proceeds solely through communication between the relevant instructor and the student on the axis of a specific subject and the studies that result from it, has evolved into an identity in which studies of very different content and quality are carried out in distance education together and the resulting products reach more people and have a greater impact.

Methodology and Objectives

In this article, in which the whole process from the first lesson to the emergence of the final products and their dissemination is discussed in the context of the methods and objectives of the course, the positive and negative aspects of distance or hybrid education, and the new potentials and opportunities offered by the course will be revealed by expressing the learning evidences of students, as well as what unique approaches and pedagogical suggestions it offers to student learning achievement in architecture graduate education (Figure 1).

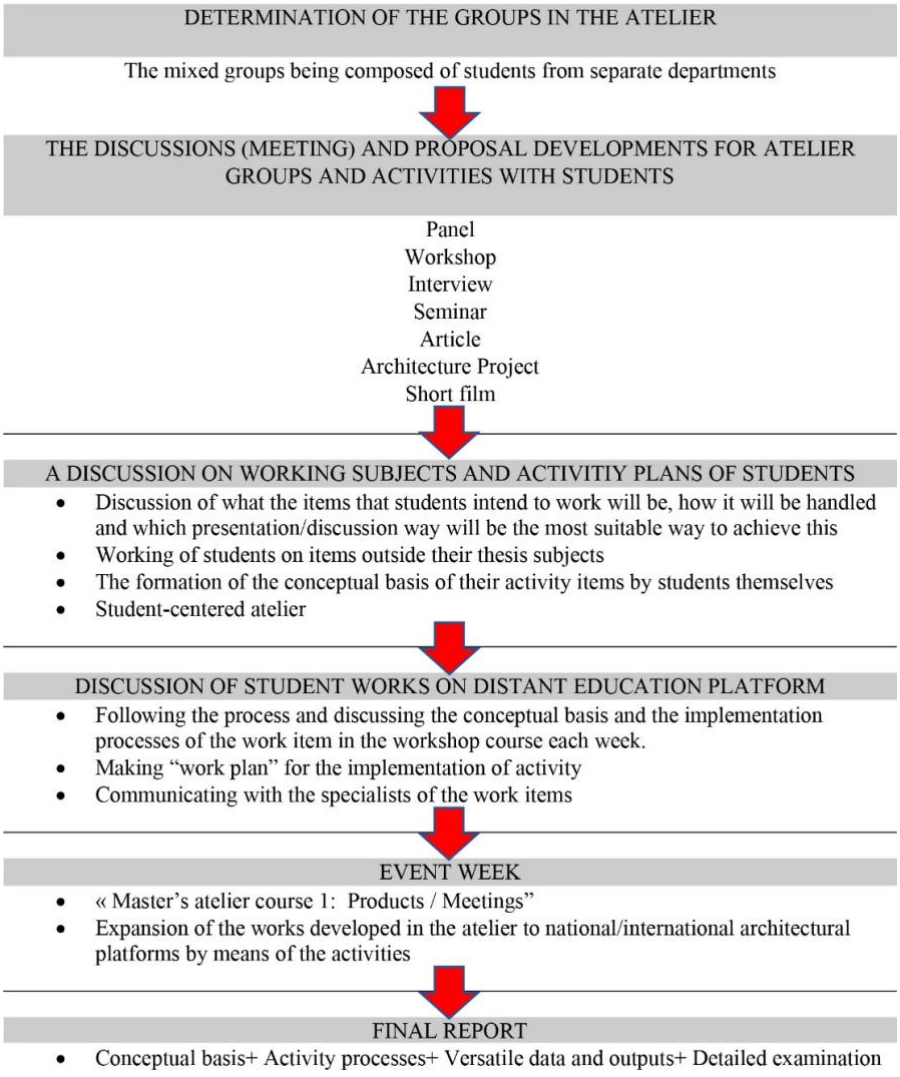

Figure 1. Versatile/Alternative 'Master's Atelier 1' course methodology (**Source:** Prepared by the authors).

Unlike graduate programs in other academic disciplines, the fact that the course is taken by students from various departments who have recently begun their graduate education has been the most important factor

in determining the course's method. Because each of these departments has its own set of unique needs and educational practices, an inclusive course that can address these is required. Furthermore, the fact that the course will be held in pandemic conditions and remotely has raised the question of how planning can be done effectively via distance education. First and foremost, ideas for turning distance education components into an advantage for this planning were implemented in this framework. In addition to the communication tools used in face-to-face lessons, such as drawing and writing, distance education, which makes information dissemination faster and more practical in digital environment through video, creates an environment conducive to the realization of teaching and learning in plural rather than singular forms, simultaneously and rapidly theoretical. It also enabled practical discussions to take place in graduate/undergraduate courses, and this situation was used as the most basic data in the determination of the course method. Because different forms of education/learning/discussion that can be followed in graduate and undergraduate education and students/instructors/experts in different conditions can be brought together more easily by distance education, and being remote offers new opportunities in this sense, students are first asked to determine a research topic and the most appropriate research and presentation method. The primary goal here was to enable the student to determine the best research and learning style for the subject and content of his/her study and to manage the process independently.

In this context, students were first asked to form groups of two and choose an activity type, such as a panel, workshop, design competition, seminar, or online controversial survey application, as well as their study topics. Two students who make up each team were specifically composed of different architecture departments in order to increase each of their abilities to acquire interdisciplinary working practices. The other main goal of the course is to allow these students from various fields to collaborate in areas they choose, allowing them to prefer as wide a range of work and presentation styles as possible within the scope of the opportunities provided by distance education. As a result of the alternative and multi-faceted course experience they have developed, they can present new perspectives and original applications that distance education can offer to architectural graduate education. Other methods used in the 'Master's Atelier 1' course included having student groups decide on their study subjects and methods, organizing the event time and process entirely on their own, and requiring them to study a subject other than their thesis topics. As a result, it was aimed to communicate with experts on the subjects under the students' control, as well as increase the course's reach by sharing the workshop's results on social media.

Process and Data Analysis

During the course, students were first consulted on what they would like to study, how it would be handled, and what would be the most appropriate method for presenting their studies. After subject and presentation method were determined, students were given the selected presentations about the study in the interim period to provide a certain level of progress and information about the subject. Following that, they were asked to complete the assigned academic presentation work using their communication and decision-making mechanisms, and finally to present the final report via video recording. In the course process, the followed strategy was based on the idea of sustaining all these p*roce*sses by the students themselves to minimize instructor intervention, and accordingly, to foster creativity and autonomy of students. After the semester began, the course groups and instructors quickly developed local, actual, up-to-date and real-life suggestions for the areas they decided upon, aside from the thesis subjects, and clarified the themes they would focus on during the semester through weekly meetings. After the subjects were clarified, the stage of determining the most appropriate, and widespread effect of the activity types that were determined with the students at the start of the lesson, began. The process of planning the study as an online activity within the time interval set by course instructors was also presented and discussed weekly over the work programs prepared by the students, and it was developed and finalized following the course instructors' suggestions. While the groups were preparing the work program and establishing the basis, elements, and principles of the infrastructure for the activity as the result of the course, they also developed a scientific report by conducting a multidisciplinary academic study based on literature research. They gathered feedback by presenting each stage of the process to instructors on a weekly basis.

To emphasize that students from various disciplines will produce products other than their majors as a result of the course, all the studies are titled 'Master's Atelier 1: Products/Encounters'. The last week of the semester was designated as the 'Master's Atelier 1' event week, and the events were publicized on both Kocaeli University and national architecture online platforms as 'Atelier 1: Products/Encounters' (Figure 2). All groups were able to carry out the activity they chose, which was spread out over a week and at different times. All activities were documented digitally, and participation certificates were issued to the students who organized the event as well as all participants who contributed. Students who took the course were able to collaborate with instructors and subject experts in a distance education course environment by sharing registration links, and the work they completed in a mutual discussion environment was spread to national architectural platforms.

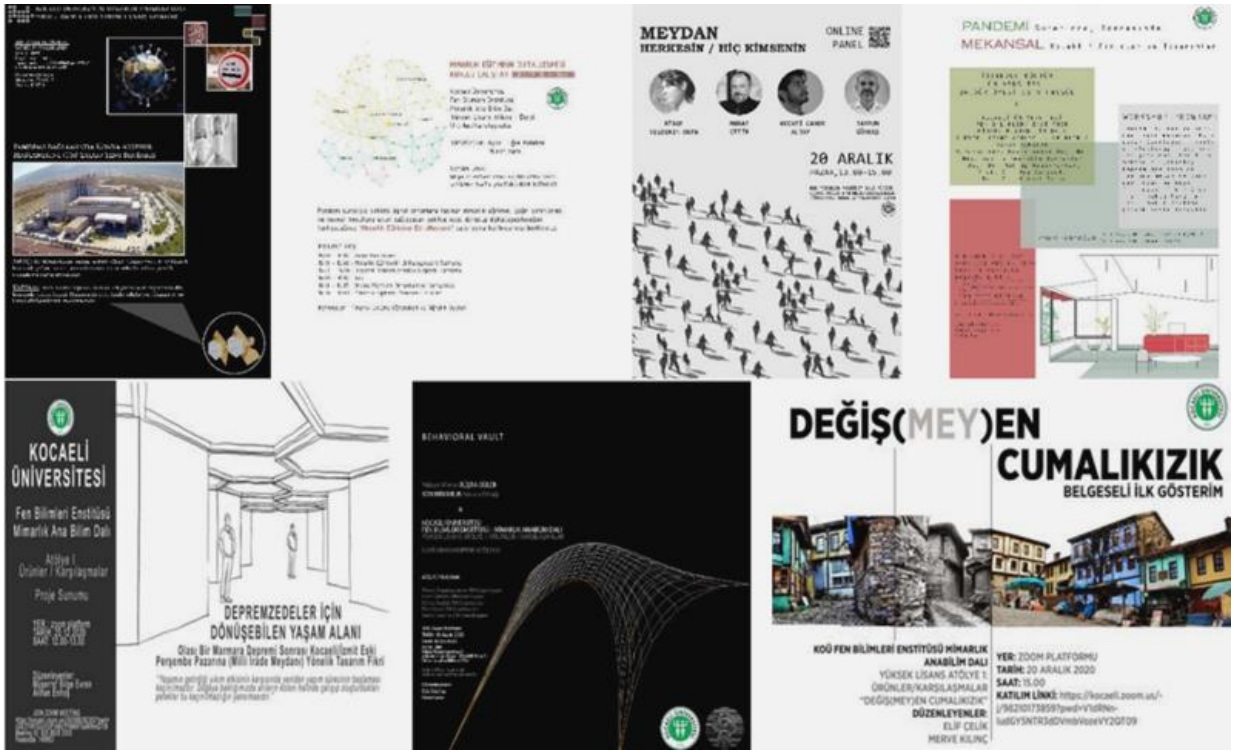

Figure 2. Event posters for 'Master's Atelier 1: Products/ Encounters' (**Source:** Prepared by the authors).

At the end of the semester, three workshops, one documentary screening, two seminars, and one panel were held in this framework with the organizations of six student groups, both inside and outside the faculty (Figure 3). Each group was tasked with writing a final report on the study's content and findings. The final reports included both the study's content, conceptual framework, and results, as well as explanations of the activity plan and processes.

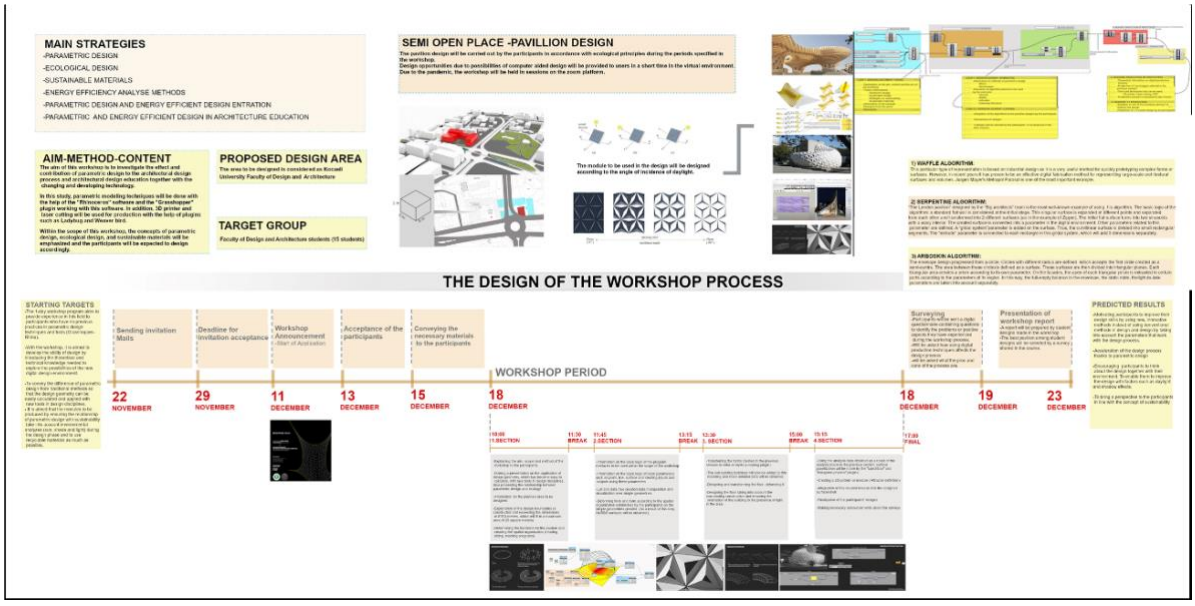

Figure 3. A Progress diagram prepared by students in the course (**Source:** Students: Eda Güzelay and Pelin Kartal).

EVALUATION OF THE SURVEY IN THE CONTEXT OF STUDENT LEARNING ACHIEVEMENT

The data and the results of surveys conducted by instructors of the 'Master's Atelier 1' course are analyzed to reveal the reflections of the course on student's learning achievements. Basically, which of the achievements were realized at what level was questioned through a survey. Under the concept of determining the level and success of student learning in this course through quantitative and qualitative data, students who took the course in the survey were asked comprehensive questions for making an analysis. Researchers have derived 27 possible accomplishment options. These questions covered various aspects including the benefits of the 'Master's Atelier 1' content, the benefits of determining the subject, the method and duration of the study by the students, the benefits of discussing the content and the duration of their subject and activity, the benefits of increasing the course's impact on others and the benefits of making the 'Atelier' more student-centered. Students were required to express their approaches whether they had gained any benefits or not from the course. For each question, the percentages of students selecting the offered achievement options were determined. The 'Master's Atelier 1' course was designed with four main predefined benefits for students. These predefined benefits encompass the development of students' design skills, research skills, analysis and synthesis skills, and organizational skills. An analysis was conducted on a matrix with the aim of determining which of the main benefits their responses corresponded to. It is aimed to establish a mathematical correlation between the objectives determined at the beginning of the course and the questions and answers to determine to what extent the activities carried out during the course turn into gains from student's perspective. The proportions of the total amount of derived achievements to the total of those who think that they have been achieved, are tabulated in the tables (Table 1, Table 2).

Survey Results: Assessment of Student Learning Performance

The questions in the survey are determined in a way to observe the level of performance and ability that the student gained, scientific attitudes he/she adopted to the studies, critical thinking skills he/she employed to perform the specified task, and the solutions he/she developed for the problems. Accordingly, when asked about the content of the course, the process, and how the results obtained from the methods affected their academic development, the most positive elements from their answers were as follows: improved presentation and organizational skills, the opportunity to listen to experts, and the presentation of a study to include in their scholarly portfolio. In the answers given, all students stated that organizing activities by their means contributes directly to the process's practical and efficient progression. In this context, 83.3% of

students stated that this method greatly improved their shared decision-making skills; 66.7% of students stated that their organization planning practices improved; 58.3% of students stated that having the opportunity to communicate with experts in various fields of study was beneficial to them (Figure 4). In addition to answers to pre-determined questions, they stated that the monitored method has other advantages, such as developing themselves in terms of time management, improving their communication skills, and embracing a solution-oriented work practice without becoming bogged down in the problem.

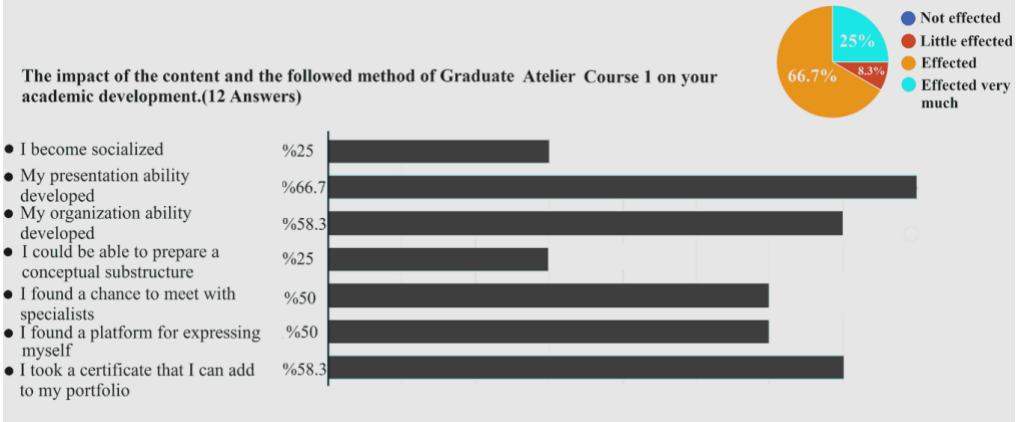

Figure 4. The Effects of the 'Master's Atelier 1' course's content and methodology on the academic development of students (Question 1) (**Source:** Prepared by the authors).

The answers given to questions about each student's methods of working on a subject that they will determine for themselves outside of their department to form groups with students from different departments also indicate that practices reflect positively on graduate students. 16.7% of the students answered 'very effective', whereas 75% of the students answered 'effective' to the question of whether the collaboration of students from different fields affects the success of the process, and none answered as 'ineffective'. When asked about the reasons for their opinions and positive outcomes, 90% of the students answered that the team of different fields increased interaction between graduate students and enriched the exchange of ideas; 81.8% of the students answered they had the opportunity to feed off the perspectives of faculty members from different fields; 45.5% of the students answered this application expanded their perspectives (Figure 5).

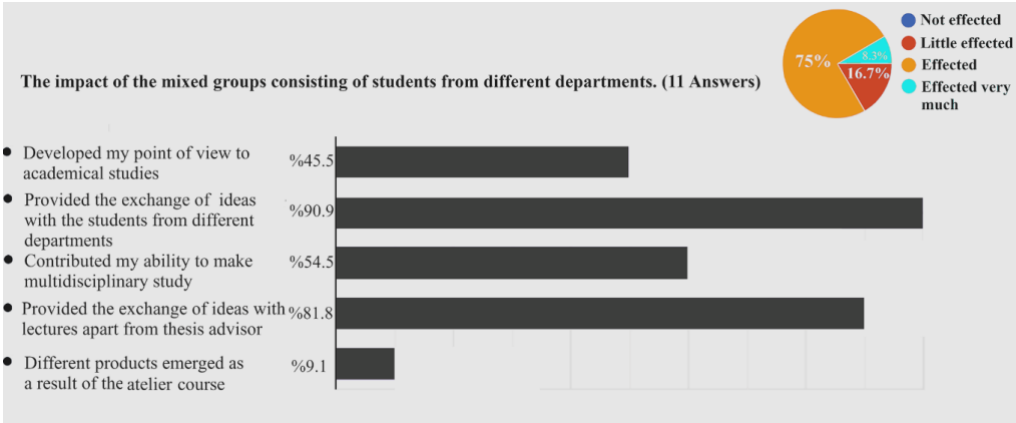

Figure 5. The Impact of forming mixed groups with students from different departments (Question 2) (**Source:** Prepared by the authors).

When asked about the effectiveness of the approach of allowing them to choose the type of activity and subjects themselves, 83.3% of the students answered that their own choice had a significant impact on the process's success. 75% of the students answered that this method promoted more democratic workshop environments and creative thinking. 58% answered that they could focus more on issues due to an environment of creating common ideas and improving their skills within the group (Figure 6).

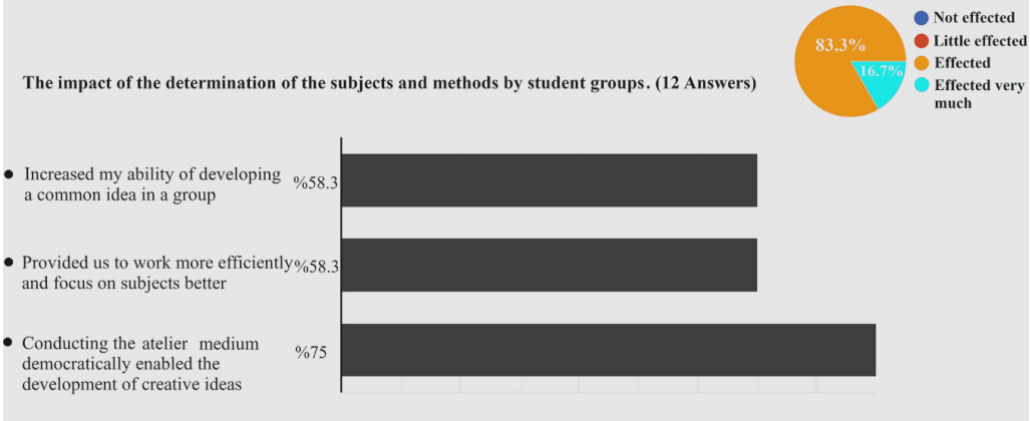

Figure 6. The Impact of the groups themselves determining the subjects and the method to be followed (Question 3) (**Source:** Prepared by the authors).

Students also expressed that the freedom to choose the subject and the method of activity, as well as the responsibility of group members to take on every problem encountered during the activity, provides an individual boost in self-confidence and complete control over the process. In response to questions about the effects and contributions of a subject study outside the department or in the cross-section where each student in the groups will carry out the thesis, 80% of the students stated that they got an idea about the progress of study processes in different departments, whereas 80% of the students stated that they had the opportunity to create different perspectives and that their interdisciplinary working skills were improved. 91.7% of the students stated that this method had a positive effect on the success of the process of planning, carrying out activities, and creating a report with a theoretical framework, and only one student stated that working on a topic within the course that is related to his/her thesis subject would be more beneficial.

The process of the end-of-term event and the planning of the final products, developing the infrastructure of the final report by following the process, and the way different groups monitor the works of each other and progress with mutual information exchange, are also quite significant findings from the survey on the effects of the methods implemented during the course. For instance, the practice of giving weekly presentations in which students progress in their studies was observed, and creating a discussion platform on these was found to be very effective by 41.7% of the students, whereas 58.3% of the students found it effective. With this method of delivery, 83.3% of the students stated that discussions held in workshop advanced their work, 75% of the students noted that following the processes of different study groups was beneficial, 58.3% of the students said that they saw a change in their perspectives on the subject/process, and 50% of students thought that they could develop more creative solutions (Figure 7). Furthermore, students expressed additional views about how discussions enabled them to complete more accurate, and clearly framed work when they deviated from the framework of the subject they were working on during the course.

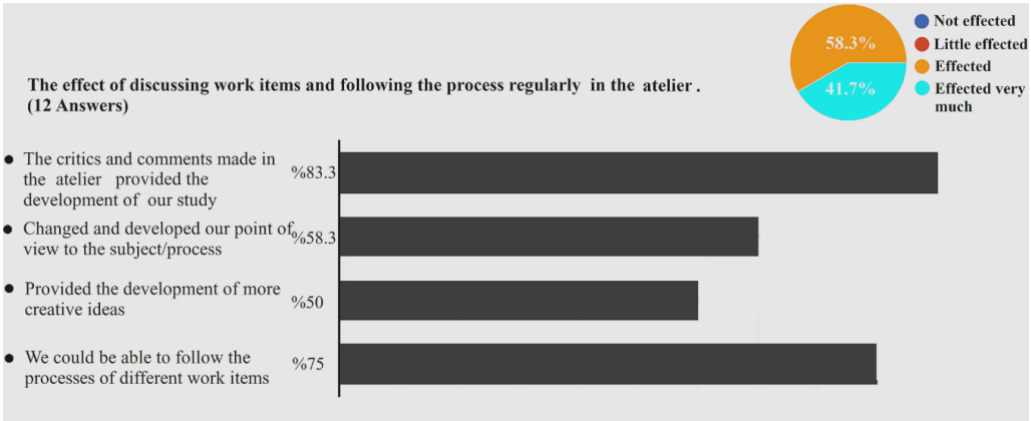

Figure 7: What is the level of effect of regularly discussing work topics in the atelier and monitoring the process (Question 4) (**Source:** Prepared by the authors)

Another important aspect of the course, which is included in the course as an extension of the opportunities offered by distance education, is encouraging groups to include experts from outside the school and making constant publicities and announcements on social media networks in a way that ensures the highest level of participation. All students who participated in the survey stated that making announcements on various platforms to expand activities and increase their participation had a positive impact on the success of activities. The participation of people with expertise in activities from outside the school was found to be affirmative by 91.7% of the students, while 75% of the students stated that the widespread influence increased with the participation being online and intensive publicity. 58.8% of the students noted that students from different universities were able to participate in the activities because of the selected activity types and their announcements in all environments. Additionally, 41.7% of students highlighted that the online activity type and activities not being limited to the university structure increased interaction with students and experts from different universities (Figure 8).

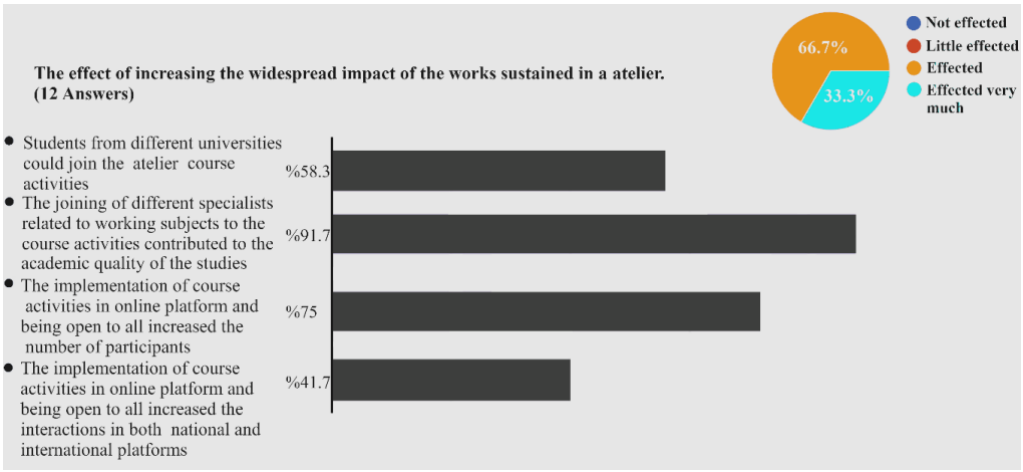

Figure 8. The effect of increasing the widespread impact of the studies developed in the atelier (Question 5) (**Source:** Prepared by the authors).

All students think that active participation by experts in activities, such as panels, workshops, or seminars within the boundaries completely set by group members has a positive effect on the course process and the quality of the products. 83.3% of the students stated that it was beneficial to be able to listen to the subject from experts, ask questions, and discuss it on the same platform, while 41.7% of the students underlined the importance of having the chance to express themselves in this discussion environment. The students also

remarked that coming together with a specialist in a field that they have limited competency in contributes to greater success in education and the development of more qualified products, as well as getting the chance to receive process advice and help by contacting academic experts. Students also commented that this type of collaboration could be continued within the course in future activities.

One of the important issues that are open for discussion in the survey is defining a position that allows students to take responsibility at every stage of the course, decide on their own researches and plans, and systematically implement these to improve their researches, synthesis, and application skills. 91.7% of the students stated that this was an effective method, and it improved their ability to develop common ideas as a group, while 75% noted that being fully responsible in a limited time helped them work more efficiently and focus on the subjects. 50% of the students who underlined that more creative ideas can emerge in such conditions pointed out that an environment was created that allowed them to develop different perspectives, and 58.3% of them highlighted that a democratic workshop environment was able to be established in this manner (Figure 9).

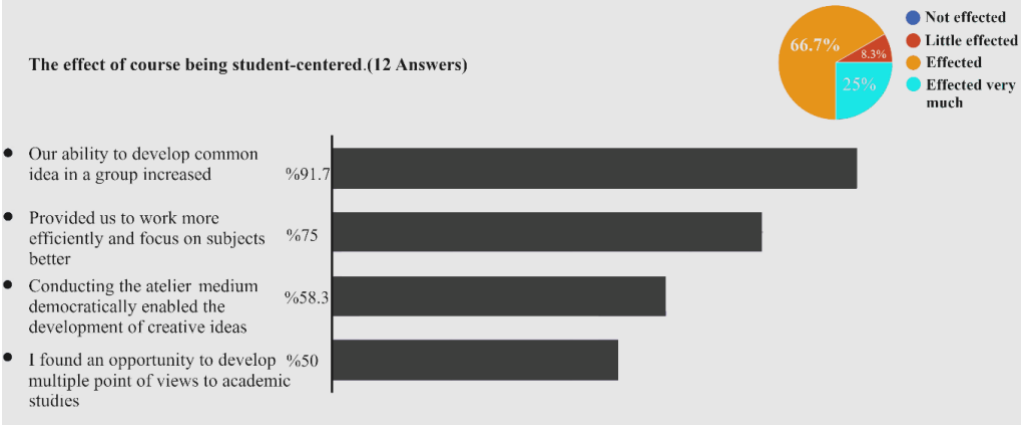

Figure 9. The effect level of the lesson being student-centered and its outcomes (Question 6) (**Source:** Prepared by the authors).

Other aspects expressed in the survey regarding the positive effects of the course were experiences of scientific research and academic study methods, such as teamwork and process management planning, learning the ethics of fieldwork, and analyzing data and results. In the survey, it was seen that in addition to all the positive aspects expressed by students about the course's methods, as well as its impact on education, there were also some negative aspects. However, not all of these are related to the course process, but also to the pandemic and distance education, as well as the disadvantages of online environment, examples of which are provided in the first part of the article. Technical difficulties in connecting to the lesson, challanges in focusing on the lesson, not being able to meet with a group friend due to physical conditions or not being able to make field trips when necessary, and communication problems between students, faculty members, participants, and presenters/executives are the leading issues that are expressed in a significant number of student answers.

Discussion and Analysis

The realization level of the learning achievement targets determined officially in the course program is analyzed in this section concerning the data and results obtained from the survey. Considering that these targets are defined in a way to correspond to the learning evidences, a comprehensive table is made that gathers and analyses the questions and results of the survey together with these learning evidence so as to objectively observe whether the learning took place or not (Table 1). Besides, the additional learning achievements obtained in the course apart from the ones shown in the survey while expressing the learning

targets and evidences that could not be realized at the end of the course, are also shown in the table. Results and data obtained from the tables can be summarized as follows:

- The goal of 'The design skills of students will develop' item as the determined learning achievement target of the course is related to Question 2 (a), Question 4 (b, c), and Question 6 (a, d) (5 criteria in total). Accordingly, the highest rate in terms of the realization level of the learning achievement targets was achieved through the answers given to the question 'Our ability to develop common ideas in a group increased' (91.7 %) (Question 6a).
- The goal of the 'The analysis and synthesis skills of students will develop' item as the determined learning achievement target of the course is related to Question 1(d), Question 2 (a), Question 3(a, b), Question 4(a, b, c, d), Question 6 (a, b, d) (11 criteria in total). The highest rate in terms of the realization level of the learning achievement targets was achieved through the answers given to the question 'Our ability to develop common ideas in a group increased' (91.7%) (Question 6a).
- The goal of 'The research skills of students with different methods will develop' item as the determined learning achievement target of the course is related to Question 1(f), Question 2 (a, b, c, d, e), Question 3(c), Question 4 (a, c, d), Question 5 (b), Question 6 (a, b, c, d) questions (15 criteria in total). The highest rate in terms of the realization level of the learning achievement targets was achieved through the answers given to the questions 'The joining of different specialists related to working subjects to the course activities contributed to the academic quality of the studies (91.7%) (Question 5b) and 'Our ability to develop common idea in a group increased (91.7%) (Question 6a)'.
- The goal of 'The organization skills of students will develop' item as the determined learning achievement target of the course is related to Question 1 (a, c, e), Question 4 (d), and Question 5 (a, b, c, d,) (8 criteria in total). The highest rate in terms of the realization level of the learning achievement targets was achieved through the answers given to the question 'The participation of different specialists related to working subjects to the course activities contributed to the academic quality of the studies' (91.7%) (Question 5b).

The examination of the survey data and results shown in Table 2 in the context of the level of realization of learning achievement targets of the course expresses that the most successfully achieved target observed at the end of the course is the 'development of the research skills with different methods' (55.55%) and 'analysis and synthesis skills' (40.74%) of students. On the other hand, it is also observed from the table that the target of developing 'design skills of students' could hardly be reached (18.51%), while the target of developing 'organization skills' is achieved at a medium level. Learning achievements followed from Table 1 that students gained most apart from the determined learning achievement targets of the course are the development of presentation abilities of students, the provision of exchange of ideas with students from different departments and with lecturers apart from their thesis advisors, the possibility of following the processes of different work items, the contribution of the joining of different specialists to course activities and to the academic quality of studies, and the ability of developing a common idea in a group. One other issue stated in the survey, which is 'the development of the study together with the comments and critics made in the atelier', is the most significant indicator of the role of instructor intervention on the learning achievement of students.

Table 1. The questions and results of the survey in relation with learning targets of the course (**Source:** Prepared by the authors).

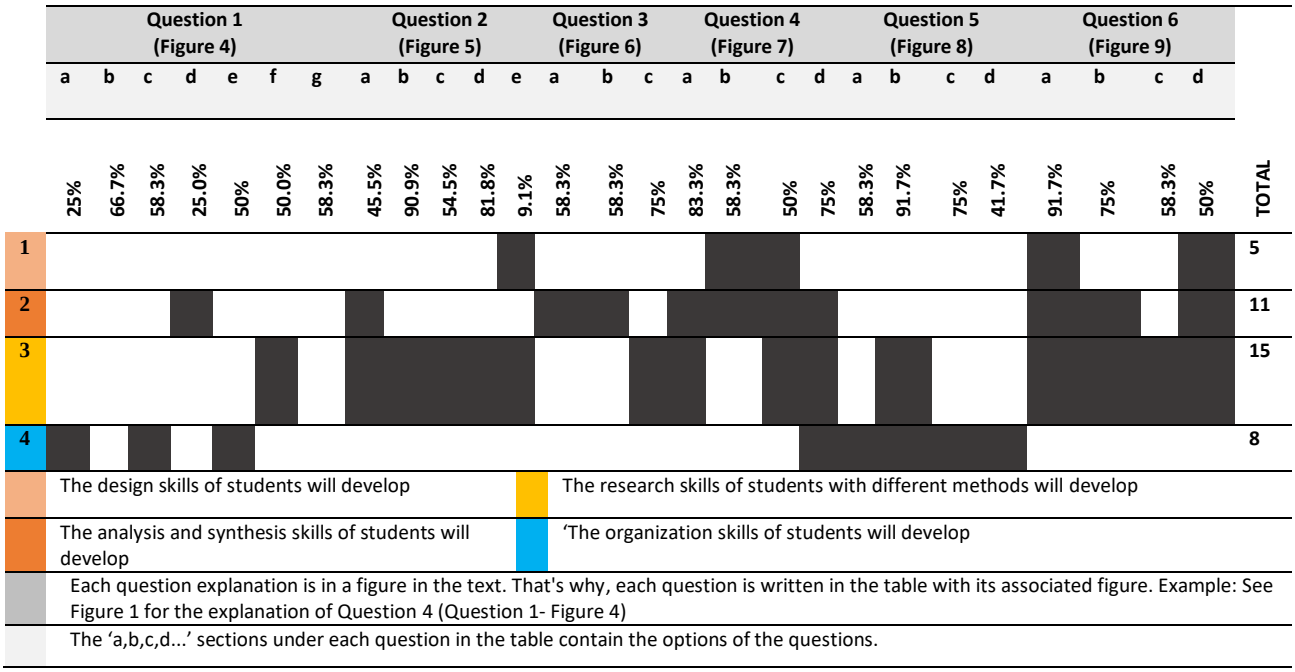

Table 2. The examination of the survey data and results in the context of the level of realization of learning achievement targets of the course (**Source:** Prepared by the authors).

Skills	The number of realizations of survey results concerning course targets	The ratio of realization of survey results concerning course targets	The number of failures of survey results concerning course targets	The ratio of failure of survey results concerning course targets
The design skills of students will develop	5/27	18.51%	22/27	81.49%
The analysis and synthesis skills of students will develop	11/27	40.74%	16/27	59.26%
The research skills of the students will develop	15/27	55.55%	12/27	44.45%
Organization skills of students will develop	8/27	29.62%	19/27	70.38%

Although these achievements that are also approved by students don't coincide one to one and don't seem to be directly related with actual learning targets determined for the course, they should be evaluated as additional learning achievements that contribute to the turning of these targets into achievements, which increase the originality and educational quality of course. Also observed from the data in the tables, students could be able to see and experience some basic components and necessities of graduate education, such as learning with exercising, collaborative learning and production, being open to different points of view, common training, multidisciplinary information transfer and communication, questioning and creating/following alternative mediums. The analysis of tables reveals that this graduate course provided solid background to students for experiencing and learning some necessities of graduate education, such as conceptual and technical substructure, time and process management, having different points of view and being open to multidisciplinary studies. On the other hand, looking at the goals set at the beginning of the course and the success rates achieved as a result of the survey, one sees that not all of these goals are

achieved at high rates, but they can be achieved at certain rates. The reason for this can be the programme of the course, which changes and enriches throughout the process, yet goes beyond the objectives set at the beginning of the course.

CONCLUSION

The basic data obtained from the survey conducted with the students of the 'Master's Atelier 1' course, which incorporates multiple methods and multi-faceted educational tools forms in the distance education environment, is the fact that pedagogical knowledge and background, as well as outcomes, are pluralistic and versatile in both positive and negative aspects. There are many educational pedagogies, such as the 'transitional emergency model' that Salama & Crossbie (2020) used for the models developed in the online period (cited by Varma and Jafri, 2021): Fleischmann (2020) 'flipped classroom' model, Dreamson (2020) 'Meta-Connective Pedagogy', Asadpour (2021) 'a sustainable pedagogical education model'. In this study, the proposed model is also a type of 'transitional emergency model' as defined by Salama & Crossbie (as cited in Varma and Jafri, 2021). Moreover, as suggested by Asadpour (2021), the necessity of reviewing the roles of the educator and the student in education and the educational content at ontological and epistemological levels, is underlined. Aside from the additional opportunities provided by distance education, it has been possible to observe these versatile effects in the survey results in this different atelier experience, in which approaches that are less preferred or never preferred in graduate education are implemented, ranging from new perspectives on interdisciplinary work to the emergence of original products with different types. It can be observed from the answers given in the survey and various types of studies that the decisions made at the beginning of the semester, such as forming student groups from different backgrounds, allowing the groups to determine the topics, the methods to follow, the organization of the activity, and the study subjects except for the thesis topics, were strongly embraced by students. These are the basic indicators of student learning achievement in this course, since they all correspond to some basic learning evidences, such as problem-solution development and critical thinking skill employment for performing a specified task.

In particular, it could be seen from survey answers and the results of the course, as well as reflections on outcome products of the course that working on a subject matter outside of their field of science and studying with students outside of their field, has a clear effect on the point of acquiring a multidisciplinary perspective for the student, which is one of the basic requirements of academic graduate education. It is clear that creating a brainstorming environment based on mutual feedback rather than merely instructor's guidance, giving more responsibility to student, allowing him/her to choose the subject and determine the type of activity, and even an approach that completely leaves the initiative to manage the process increases the motivation of the student and help him/her to gain confidence and skill in performing a specified task. This study is important in terms of providing an alternative atelier course, since it addresses the problems stated by architecture educators and students living in different parts of the world in the early periods of the pandemic, such as lack of one-on-one communication and lack of interactive learning, difficulties in teaching through digital platforms, inequalities in education and concentration problems, social isolation and positive contributions of new technologies (Allu-Kangkum, 2021; Field Notes, 2020; 'Architecture Deans', 2020; Uzaktan Eğitim: Akademisyen 01-02, 2020; Uzaktan Eğitim: Öğrenci 01-02, 2020). All of the studies encountered in the literature review section (except Geus, 2020) are studies on the problems, effects, efficiency, positive and negative aspects of online architectural education at undergraduate level, solution suggestions, and the revealing of new educational pedagogies (Anwar et al., 2021; Elrawy and Abouelmagd, 2021; Asadpour, 2021; Fleischmann, 2020; Buldan, 2021; Varma and Jafri, 2021; How the coronavirus pandemic, n.d.).

Students experienced a 'multi-faceted' academic learning process by observing the process of implementation of subjects from different disciplines through different expression and presentation techniques because they developed their work by exchanging views with professors and had the opportunity to follow each other's processes concurrently. The assessment of student performances through the analysis of these realities, survey findings, the process, and the final versions of their studies proves the adoption of

scientific attitudes by students in their studies and the progression they made in their learning achievements accordingly. The article's main findings on this course indicated that all these positive components could be adapted and applied with an easy-to-adapt and flexible program for post-pandemic distance learning in graduate courses. Although the learning outcomes determined for the course at the beginning of the semester were not achieved at very high rates, it was witnessed that different and unexpected learning experiences and gains were obtained at the end of the course, apart from these learning outcomes. Essentially, the other main point that this master's course practice demonstrates is that new perspectives can be put forward to turn the disadvantages of master's degree courses in distance education that are expressed in the first parts of the article into advantages. All of the data, such as easy access to experts called for the events, quick and efficient event preparation, and the responsibility of ensuring the widespread impact of course's outcome products, have all been achieved thanks to the course being held online and through distance education. Furthermore, it was discovered that all of these methods and decisions aid in the elimination of psychological problems, such as loss of motivation and inability to focus, as well as improve the quality of the results. The richness in content and diversity of the products that emerged in the course to turn a research-based study into an academic presentation and report in the final by the students working alone or with a group member shows that this fundamental objective is largely achieved at the end of the course and different learning processes are experienced by students. The high number of out-of-school participants in the activities, as well as shares and feedback made on local and national platforms, indicate that the goal of increasing the course's widespread impact by sharing the result products on social networks was also achieved.

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