Adaptation of Interior Design Course to Distance Education During Covid 19 Pandemic Period

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Abstract

In a period when the changing living conditions with the Covid-19 pandemic are effective in all areas of life, this research is an example that investigates how the second-year undergraduate Interior Design I applied course, which is carried out in Hacettepe University (HU), Department of Interior Architecture and Environmental Design in formal education, can be efficiently adapted to distance education and develops methods on this subject. A mixed research method combining qualitative and quantitative approaches was used to analyse students' adaptation, motivation and project outcomes. In the research, it is aimed that the Interior Design I course, which was conducted online in the early period of the pandemic, will contribute to the related courses in case of a transition to distance education system due to different reasons. The course was divided into five different sections. Each section was taught by a different lecturer and a teaching assistant. In addition to the fact that the topics of all sections were the same, the requirements, evaluation criteria and exam dates were designed simultaneously. The research was conducted through the students (16) who chose this course in Branch II and their project studies. Various methods were developed to ensure the efficiency achieved in formal education. In line with the opinions, feedbacks and project outputs of the students who are the subjects of this process, suggestions for the adaptation of distance education to interior design courses have been developed. The findings revealed that students successfully adapted to online design education and achieved creative results comparable to face-to-face learning. The study focused on the adaptation process of traditional hand drawing to the digital environment applied in the distance education period. This study provides insights that can guide the development of flexible and sustainable design education models for future crisis conditions.

INTRODUCTION

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Throughout history, there have been various epidemics affecting public health such as plague, cholera and Spanish flu. The Covid-19 outbreak, which started in China and then gained a global dimension, emerged as a serious epidemic in terms of its rapid spread to every country. The World Health Organization declared a pandemic on 11 March 2020 as a result of the wide spread of the disease. On the day the pandemic was declared, the first case was seen in Turkey (Ministry of Health, 2020). The pandemic had a great impact on social, economic and daily life. As a result of the global pandemic, all higher education institutions in Turkey were suspended on 16 March 2020 (Council of Higher Education, 2020). On 23 March, the education sector made a serious and rapid method change and switched to distance education (Yamamoto & Altun, 2020).

Emergency Remote Teaching (ERT), later referred to as Emergency Distance Education (EDE), describes the temporary shift of instructional delivery to an online format during a crisis, in which face-to-face courses are rapidly adapted to digital platforms (Hodges et al., 2020). This differs fundamentally from planned distance education, which is built on structured instructional design, established digital materials, and learner-centered flexibility. While distance education offers students multiple pathways and deliberate pedagogical choices, emergency implementations prioritize continuity over optimization and emerge as compulsory responses to extraordinary circumstances such as the Covid-19 pandemic. Consequently, both students and instructors were required to develop immediate and creative solutions to sustain learning processes under mandatory home confinement and technological limitations.

The point to be emphasized here is that the global crisis with the covid-19 pandemic did not present internet-based education as an option. The autumn term of the 2020-2021 academic year, which has compulsorily evolved into distance education, needed creative solutions. In this situation, both students and educators have produced different solutions to adapt to the internet-based education model, which has become compulsory. Therefore, this process has been a period of going beyond the standard patterns, containing creativity, making instant decisions according to the situation, and creating new methods and approaches.

When the universities that provide distance education, in other words, completely distance education, are examined, it is seen that there are more programs such as web design, graphic design, animation, where the

course output can be exhibited in digital environment, in other words, two-dimensional, while there are less education in disciplines such as architectural design, interior design, product design, industrial design, where the course output is three-dimensional. This situation is thought to be caused by the student-student and student-teacher communication in application-based education in fields that require three-dimensional thinking and designing action, the fact that design goes beyond drawing or sketching and includes three dimensions, that is, prototype and model making, and the criticisms given in the jury system in the evaluation phase of the projects (Öztürk, 2016).

Especially in design education; in addition to the theoretical courses based on measurement and evaluation, where information is directly transferred, such information is tested with design problems. In studio education, students learn and use basic design principles to produce alternative solutions to design problems and gain practice by combining the knowledge obtained with practice (Yıldırım, Özen & İnan, 2010). In addition to the theoretical course, the interaction with other design practices during the criticism, as well as the evaluations received by the students among themselves and the teachers in the design courses carried out with a focus on practice, reveals the importance of face-to-face communication in design education.

The shift to online studio education introduces new pedagogical dynamics, as suggested by recent studies on situated learning in digital design studios, in which the studio is reconceptualized both as method and environment (Buldan, 2021).

In the 21st century, technological developments and the widespread use of digital tools have led to the use of technology in almost every environment. On the other hand, social events have led to the development of distance education models that can be accessed from anywhere, regardless of location, in order to prevent interruption of education. Online environments, three-dimensional rapid modelling tools have been included in the design process and started to be used in almost every field.

Tauke (2003) summaries the reflections of the impact of today's developments in the field of technology on design education as: the transfer of traditional methods such as hand drawing, technical drawing, etc. to the virtual environment, the increase in the interaction of students and teachers as a result of the increase in the use of online resources, and the necessity of understanding other disciplines and working interdisciplinary with them (Cited in Yang, You & Chen, 2005). According to Nigel Corss; a new model is needed in design education that will adapt to the post-industrial design culture. Thus, design education should be more accessible and open (cited in Holden & Garner, 2005).

Recent studies have shown that design studios rapidly shifted toward digital, hybrid, and fully online formats after the pandemic, revealing both pedagogical challenges and opportunities (Süner –Pla-Cerda, Öztürk & Ünlü, 2025; Şuta, 2022). These studies emphasize issues such as reduced

peer interaction, the transformation of studio culture, and the increased reliance on digital modelling tools. However, they also highlight the potential of flexible studio models that combine physical and virtual environments. Despite this growing literature, few studies have examined how a traditionally hand-drawing–based, concept-oriented studio can systematically adapt to emergency online education while preserving iterative critique, tactile processes, and three-dimensional thinking. This gap forms the foundation of the present research.

This research is considered to be an example that investigates how the applied course carried out in formal education can be adapted to distance education efficiently and develops methods related to this issue, depending on the existence of some or all of the daily life online with the pandemic period. This study, which was carried out in the early period of the pandemic; It is aimed to contribute to the relevant courses in case of a possible transition to a distance education system for different reasons. Unlike many previous studies focusing solely on the challenges of online design education, this research provides a structured model demonstrating how an applied design studio course can be effectively transformed into a flexible, hybrid system adaptable to both emergency and future learning conditions. Recent studies on online design studios (Tafahomi, 2022) mostly examine student experiences, digital challenges and instructional limitations; however, very few address the adaptation of a hand-drawing-based second-year studio to an online format (Cihanger Ribeiro., 2022). This study fills this gap by analyzing how traditional analogue design processes were sustained, transformed and supported during the transition to a distance education model.

INTERIOR DESIGN COURSE AT HU DEPARTMENT OF INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN

Hacettepe University Distance Education Application and Research Centre (HUZEM) quickly adapted to this process. Detailed information was provided to both students and educators through HUZEM. In the Department of Interior Architecture and Environmental Design, meetings were held on how to adapt applied and theoretical courses to the distance education process in the most efficient way. New methods have been designed based on formal education learning principles.

The fact that theoretical and practical studies took place together in the Interior Design I course, which was discussed in the study, made it compulsory to develop more than one approach and method. In the designed programme, new arrangements were made in the process by taking into account the opinions, requests and difficulties experienced by the students.

The project topics given within the scope of the course are determined as a result of the joint decision of the course coordinators based on the current events of the period. The main factor in choosing this project topic as Tiny House; Based on the Covid-19 epidemic, which is the current natural disaster of the period, it has been to prepare students both in

terms of education and professional practice for solutions and action plans that can be developed in the face of extraordinary situations that may occur in the future. As a matter of fact, many people in ten provinces were left homeless and suffered painful losses as a result of the great destruction caused by the Kahramanmaraş earthquake on 6 February 2023. Initiatives such as container houses, tents, etc., which were made to solve the shelter problem in the fastest possible time, created an important shelter problem that needs to be solved quickly. Tiny House, which came to the agenda again during the Covid-19 pandemic, has been emphasised to be sustainable in addition to maintaining its importance and topicality in terms of being integrated into similar and possible natural disaster situations.

Interior Design course is a studio course of HU Department of Interior Architecture and Environmental Design. The course takes place in the third semester of the four-year undergraduate programme (Figure 1). In the first and second semesters of undergraduate education, basic courses that prepare students for design education are taken. Students synthesize all the knowledge gained from these courses and use them in the Interior Design course.
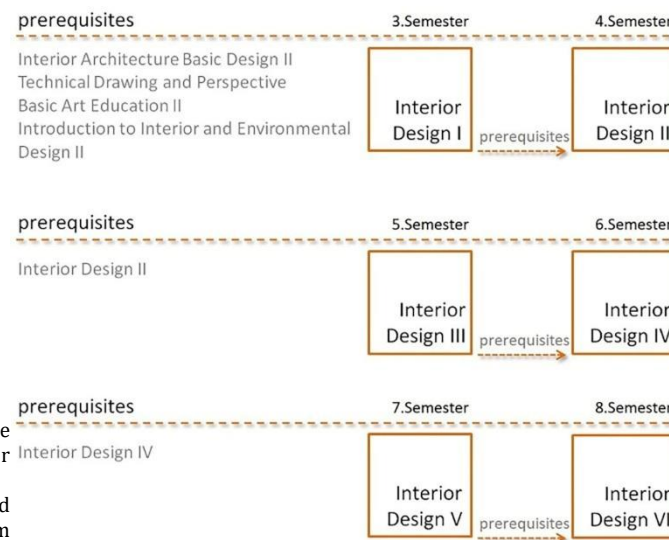
Figure 1. Graphic presentation of the term and prerequisites of Interior Design I course
This information has been tabulated by researchers based on data from Hacettepe University's official website, 2021

The Interior Design I course begins in the second year and continues conditionally for six semesters. Each term, different topics and criteria are defined within the studio courses. This first course is particularly important as it marks the transition to project-based design education in the field. Students make decisions by blending the desired data with their knowledge, realize spatial constructions, create the human-space relationship by considering user needs, and address the concepts of function and aesthetics with a holistic approach (Tarakçı Eren, Yılmaz & Düzenli, 2023).

The aim of the Interior Design I course is to enable students to acquire the ability to design space. To experience the process of designing by triggering original thought processes and creativity; it is aimed to be able to produce a product at the end of this process (Figure 2).
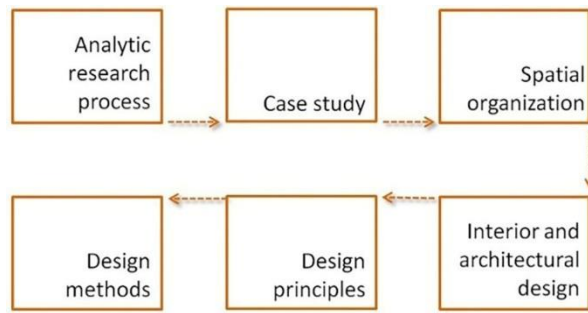
In case of successful completion of this course, students are expected to be able to do the actions expected to be able to do as learning outcomes of the course: analytically analyze any building, analyze and define the design codes that make up any design, design by using two or three dimensional thinking processes in coordination with each other, transform the analyzed spatial and structural information and values into concrete architectural space, establish the relationship between the building and its environment, establish the structural system of the building and prepare idea sketches, architectural projects and visual presentations of the designed building (Hacettepe University, 2025).

At Hacettepe University, each semester is structured as a 14-week course programme. The studio course, which is the subject of this research, is based on face-to-face critiques and practices twice a week. In each new semester, a current and different project topic is decided. The semester course workflow is shared with the students before the course starts.

A similar approach was taken in the transition of the course, which is conducted face-to-face in formal education, fed by the studio environment and can be intervened manually, to distance education without loss of quality. In times of crisis such as the Covid-19 pandemic, it is not possible to make plans covering a long time and to implement them quickly.

Due to the Covid-19 pandemic, quarantine practices were carried out at various levels to maintain social distance by suspending the functioning of public and private educational institutions almost all over the world, especially in the spring semester of the 2019-2020 academic year (Aghakhani, Memarian, & Shalbafan, 2021; Daniel, 2020). In line with quarantine practices, educational institutions were closed in many countries. In this case, it is stated that it has affected approximately 90-92 per cent of the student population worldwide (Unesco, 2020).

Schools at various levels all over the world have started the distance education process so that students do not fall behind in their education. On this occasion, every educator and learner, with or without distance education experience, suddenly had to teach or take courses with distance education method. Educational institutions and educators have searched for how courses can be conducted through distance education and how various online tools can be used (Karip, 2020).

Interior Design course aims to develop students' creative and analytical thinking processes by providing them with the skills of designing and analysing spaces. At every stage of the education process, students are expected to produce various design solutions using a combination of theoretical knowledge and practical applications. Although unexpected situations such as the Covid-19 pandemic have affected the quality of education, the sustainability of the process has been ensured thanks to distance education practices. Educators and students have adapted in this process and moved their education methods to the digital environment and tried to ensure the continuity of learning under all conditions. In this context, the fact that the Interior Design course is carried out effectively not only face-to-face but also through distance education once again reveals the importance of flexibility and technology use in education.

METHOD

This case study was designed not only to analyse a single semester experience but also to extract transferable strategies for integrating studio-based design education into online or hybrid environments. Hacettepe University, Faculty of Fine Arts, Department of Interior Architecture and Environmental Design, within the scope of Interior Design I course, before each semester, course instructors prepare the content of the project course by determining a common current topic. In the process continuing with distance education in the 2020-2021 autumn semester; the difficulties experienced, the advantages and disadvantages of distance education, the attempts made to adapt to the compulsory online situation are discussed within the scope of the branch II students of the course and the course (in the context of the project studies produced).

In this study, mixed research method was used. As stated by Creswell (2021), mixed method research can be defined as a unique method orientation in which analyzing, collecting data and interpreting all these are at the center. In doing so, the importance of research questions, philosophy and methods should not be ignored. A mixed research method was employed by combining quantitative data such as weekly performance tracking and project evaluation results with qualitative data obtained from instructor observations and student feedback collected during the design process. The research focuses on three main questions aiming to analyse the distance education process of the Interior Design course:

1- How did students adapt to design education conducted online?

2- How did the transition from hand drawing to digital drawing affect creativity and motivation?

3- What pedagogical and technical methods can improve efficiency in distance design education?

Within the scope of the course, while quantitative data were used in the adaptation of the students to the course, their morale and motivation

levels, and the weekly required course outputs; qualitative data were used in the information obtained as a result of classroom observations and project evaluations carried out throughout the semester, in learning their experiences about the process and in interpreting all these data with a critical perspective.

These parameters include problem definition, form generation, and functional correspondence, which were used to evaluate students' adaptation and project outcomes within the online learning context (Table 1).

Table 1. Parameters, related variables and data sources used in the study (Personal archive, 2025)

PARAMETER	RELATED VARIABLE	DATA SOURCE / EVIDENCE
Student Adaptation	Online learning process	Observation notes, project progression
Creativity & Motivation	Digital vs. manual drawing	Student feedback, project outcomes
Efficiency	Pedagogical and technical tools	Instructor reflections, course records

In order to ensure equality in the number of Interior Design I students, which constitutes the field of the research, the course was opened with five different branch codes under the supervision of five different lecturers. Within the quota, each student voluntarily chose the branch he/she wanted. In this period of distance education, each instructor developed his/her own teaching method. Although the same subject was designed within the same programme in all branches, there were differences in the methods of branch instructors in the operation of the course. Since all five branches of the course were conducted simultaneously, each branch could not be observed throughout the process. For this reason, the research was carried out in branch II.

Methodology of the Study

The pandemic process and conditions experienced during the period when the course was conducted did not offer equal opportunities for everyone. However, the fact that all studies will be evaluated online during the semester made computer and internet access compulsory. For this reason, all students were warned to provide computers, internet access and working microphone camera systems before the start of the course period. The branch manager informed the students that he/she could request online drawing whenever he/she deemed necessary. Therefore, it was very important to provide drawing equipment and technical equipment that could be seen by the student and his/her desk while working.

Course critiques were made with the method and frequency to be determined by the instructor of each branch. Observations made during these critiques formed one of the key qualitative data sources of the study. All notifications for the course were made synchronously or asynchronously via Moodle, Zoom, Huzem, WhatsApp group created for the course. Following every announcement made during the distance education process has been a very important factor for students to complete this process successfully. In order to overcome or minimise the disadvantages of distance education, attending online courses and completing weekly homework regularly has been a non-compulsory requirement. Because the result has been a situation of taking part in a study in which the result makes sense with the process rather than the product.

No digital drawing is accepted during the semester in the Interior Design I course carried out in formal education. When it is detected that any drawing is carried out in digital environment, the student's project is not evaluated. However, with the compulsory transition to distance education, the most prominent change in the course has been: two-dimensional and three-dimensional studies have been offered the option of hand-drawing or digitally depending on the student's desire and opportunity (Figure 3). On the other hand, although two and three dimensional studies were allowed to be done digitally, students were asked to realise three dimensional studies with the materials they could provide, especially in the process of developing the concept and translating the concept into space. The most important reason for this was to ensure that the ability to develop three-dimensional thinking at the maximum level by using hand-eye-brain coordination as a whole. However, considering the difficulties of access to materials, the use of programmes such as AutoCAD, Sketch up, 3dsMax was kept free for the sheets presented in the critiques within the time and criteria permitted by the branch coordinator.
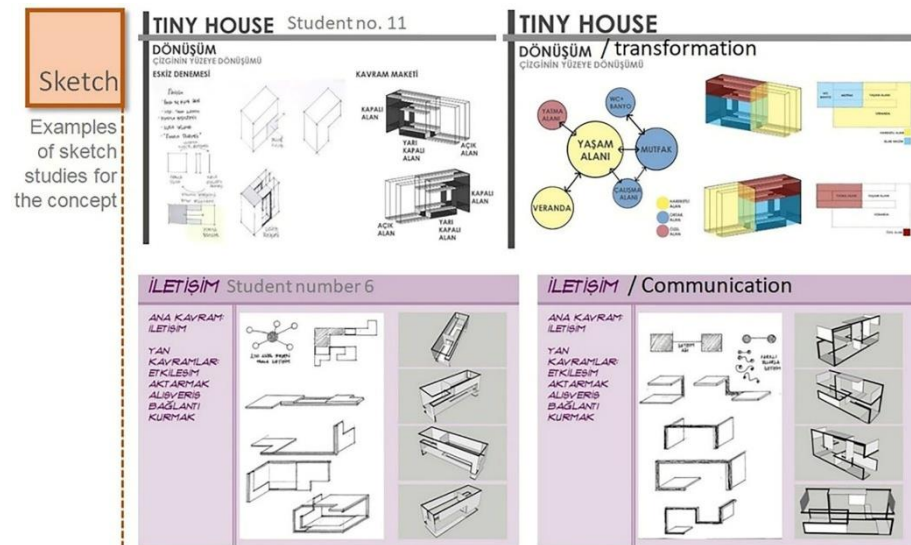
Figure 3. Examples of sketches, stains and models made during the concept development process
Personal archive, 2021

In the Tiny House Project given within the scope of the project, the maximum criteria required from the students were shared before the start date of the project course. These criteria were created to draw the main boundaries of the project and to prevent students from having any hesitation. In addition, some variables that will form the scenario of the project were asked to be determined by the students, enabling the students to create the original values of each project and to realize original designs according to their own fiction. In this way, each student was obliged to construct the scenario of the study in detail. In doing so, the maximum criteria required of everyone:

- Tiny House should be designed to be used by one or two people. Users should be informed about their profiles,
- Whether the structure is mobile or fixed should be determined within the scope of the scenario,
- The land where the building will be located should not be chosen hypothetically. Each designer should choose the land depending on the scenario,
- Within the scope of the scenario, it should be clearly stated for what, how and how often the structure is used.

The work carried out during the semester was based on weekly critiques. Therefore, the process became as important as the final product output presented at the end of the semester. Managing the process correctly and making more progressive and creative design approaches based on the critiques has been the most important step of the evaluation system. To summarise; all students were evaluated on weekly critiques and class participation in addition to midterm and final exams.

Interior Design I course is very important as it is the first project course of Hacettepe University Department of Interior Architecture and Environmental Design. Because the technical knowledge, design principles, abstract thinking and the knowledge of transferring this abstract thinking to three dimensions learnt in the first year are blended within the scope of this course and evolve into producing concepts, transforming into space and creating atmosphere. For this reason, the course requires a devoted work for both instructors and students. The aim of the course is to enable students to acquire the ability to design spaces, to experience the design process by triggering their original thought processes and creativity, and to produce a product at the end of this process.

Within the scope of the course, students were first asked to make a literature review on the given subject and to make analyses on existing examples in order to better understand the subject. These analyses were made both in plan, i.e. two-dimensional, and three-dimensional volume and mass.

Secondly, in order for them to understand the importance of the user in design, they were then expected to create a scenario for the user and to determine the criteria such as the identity, physical characteristics,

tastes, interests, etc. of this user. Based on the scenario, the students are expected to produce a concept, analyse the concept, create a concept map and experience the analysis of the forms that can be the formal equivalent of this concept with sketches, reliefs and abstract models. The design conceived in the mind should first be presented with concept analyses and studies, freehand abstract sketch drawings and 1/50 or 1/20 (depending on the project subject) abstract draft models. At this point, the priority is that the formal constructions should not resemble any existing shape or form, as well as having an attitude away from analogical approaches. In this way, it is desired that the student shows maximum creative performance.

The course that is considered within the scope of the research is a compulsory and prerequisite course of HU, Faculty of Fine Arts, Department of Interior Architecture and Environmental Design. The selection of this course is made in case of success in the first year undergraduate courses Basic Art Education I and II, Basic Design, Interior Architecture and Environmental Design I-II and Technical Drawing and Design Geometry I-II. Therefore, students can be expected to first use what they have learnt in these courses, to make two-dimensional and three-dimensional sketches while developing their projects, and to undergo an abstract and concrete synthesis process.

Those who succeed in creating a successful synthesis of design principles and elements with the literature review can move faster in producing abstract concepts. If they can develop abstract concept analyses, two and three dimensional formal searches produced as a result of all the data obtained, great ease can be provided in the creation of interior space fiction and atmosphere.

The digital transformation in education under the pandemic conditions offered different opportunities for students to develop their creative and technical skills, while at the same time once again revealing the importance of original thinking and design processes. In this process, the studies carried out in line with the limits and freedoms given allowed students to develop a deep understanding of space design and emphasised the importance of design and concept generation. In this context, at the end of a period in which each student developed the ability to understand and design the space in accordance with the determined criteria and by focusing on their creative processes, the training process was successfully completed.

FINDINGS

Overall, the analysis of student works revealed that the Interior Design I course enabled students to make significant progress despite the limitations of distance learning. The evaluation conducted through the parameters of problem definition, form generation, and functional correspondence made it possible to observe how students adapted to the online studio environment and how their conceptual, technical, and spatial reasoning skills evolved throughout the semester.

In the second stage, students demonstrated their ability to transform conceptual analyses into spatial decisions. After completing basic concept evolution, they conducted material and detail research aligned with their scenarios. This process required them to generate original spatial and equipment solutions, which formed a critical component of their design development. These outputs were evaluated in relation to the parameters defined in the methodology.

Although the findings are presented in a continuous narrative, they directly relate to the study's research questions. Observations throughout the semester highlighted issues of student adaptation to distance education, transitions to digital drawing tools, and the instructional strategies developed to support the design process. These elements naturally overlap within the studio environment, and therefore are discussed together in an integrated structure.

The education that the person receives in line with his/her own experience and behaviour in line with his/her wishes is aimed at ensuring the occurrence of changes related to certain purposes. As Ergün (2015) stated, the concept of education can be interpreted in different ways. These differences may also cause changes in the learning method. In other words, all branches of science have different and unique learning methods. It can be said that art and design fields differ from others in terms of both theoretical and practical aspects. The drawing types used in the process of creating design in the field of interior architecture are presentation and application orientated (Soygeniş, 2006). With the development of technology and its inclusion in daily life, education areas have also changed. In this sense, Interior Architecture education and applied fields have made progress by rapidly integrating technology into the process both in presentation methods and techniques and in the project drawing stage.

In March 2020, with the Covid-19 pandemic, which emerged as a global crisis, it was decided to continue all education and training life with distance education (online). With the beginning of the transition to distance education, resources on abstract thinking and concept generation, which is one of the important outcomes of the course, were first shared with the branch II students (16 students) of the course, which was taken into consideration within the scope of the research. The students were expected to decide how many people will use the Tiny House model to be designed in line with the given resources and their own researches, how many people will use the Tiny House model, the user profile and whether it will be fixed or mobile. The first step of concept development, which is one of the objectives of the course, was taken at this stage. Table 2 shows the scenario and concept information of the students who took the course.

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Table 2. The scenario and concept information of the students taking the course are tabulated (Personal archive, 2021)

Student No	Fiction	Number of people	Tiny House Model	The Concept
1	The visually impaired audio blogger aims to reach other individuals in the world through various seminars and trainings. She lives with her mother and guide dog.	2 (Himself and his mum) and Dog	mobile	Touch
2	The musician is constantly on the road as he is on tour in Europe. He uses it for both travelling and accommodation. He also gives short concerts on the road.	1	mobile	Ladybug
3	He resigns from his job as a manager in a theoretical firma and starts travelling and providing consultancy services on the internet.	1 and the cat	mobile	Contact
4	The graphic designer wants to return to his own essence. Therefore, he decides to live in a place not far from the city.	1	immobile	Cycle, transformation
5	The acrobat often travels because he works in circuses. He wants to prefer the comfort of home on these journeys, so he starts living in a tiny house.	1	mobile	Movement, motion, change
6	Zoologist and writer. Travelling a lot and seeing family/friends in different countries	2 (Married couple)	mobile	Interaction
7	An individual who is bored with business life decides to go on a world tour. While doing this, he will also run a coffee shop.	1	mobile	Birth, awakening, movement
8	Vlogger produces travel and promotional content. He is constantly travelling due to his job.	1	immobile	Interaction
9	He uses it when he wants to paint and write away from the city tempo and responsibilities.	1	mobile	Purification
10	The yoga instructor aims to enlighten his or her inner world in seclusion.	1	mobile	Moment of realisation
11	Busy private sector employees often use it to relax with their friends at the weekend.	2 (Married couple)	immobile	Transformation
12	The cook wants to meet different cultures and learn about the food of these cultures. He is on the road to transfer what he knows and to establish a connection.	1	mobile	Connection
13	The healer seeks his essence by integrating with nature and experiencing the natural elements.	1	immobile	Return to essence
14	The painter is constantly travelling because he enjoys being in touch with nature. That's why he turns to tiny house.	1 and the cat	mobile	Trace
15	Manager. He works very intensively, uses it to stay in balance.	1	mobile	Balance
16	The painter paints nature.	1	mobile	Internalise

Another aim of the study is for students to exhibit a design approach towards the concept. In doing so, they were expected to synthesise the researchers conducted by adhering to the scenario in an original way. At this stage, more than one concept model was studied, alternatives were produced and the final concept model was reached. When the concept study and model experiments reached the desired level, studies on the reflection of the concept on the space started. Below is an example (Figure 4) of how the students looked at the design process and how they evaluated the subject.

Figure 4. Example of alternative model studies carried out in the process of transforming the concept into three dimensions
Personal archive, 2021

In the work of student number 1 (Figure 5), the concept reached was: touching. The reason for this is based on the scenario he prepared. According to his scenario; the visually impaired audio blogger adjusts his schedule to change his location every three to four months to attend international trainings and seminars and aims to touch other visually impaired individuals. She is accompanied by her guide dog and her mother on these journeys. Since he lives with his mother, two different sleeping area solutions were considered. Since he is a visually impaired individual, an accessible housing design has been determined as the main

purpose. From this point of view, the personal demands of the user were also determined.
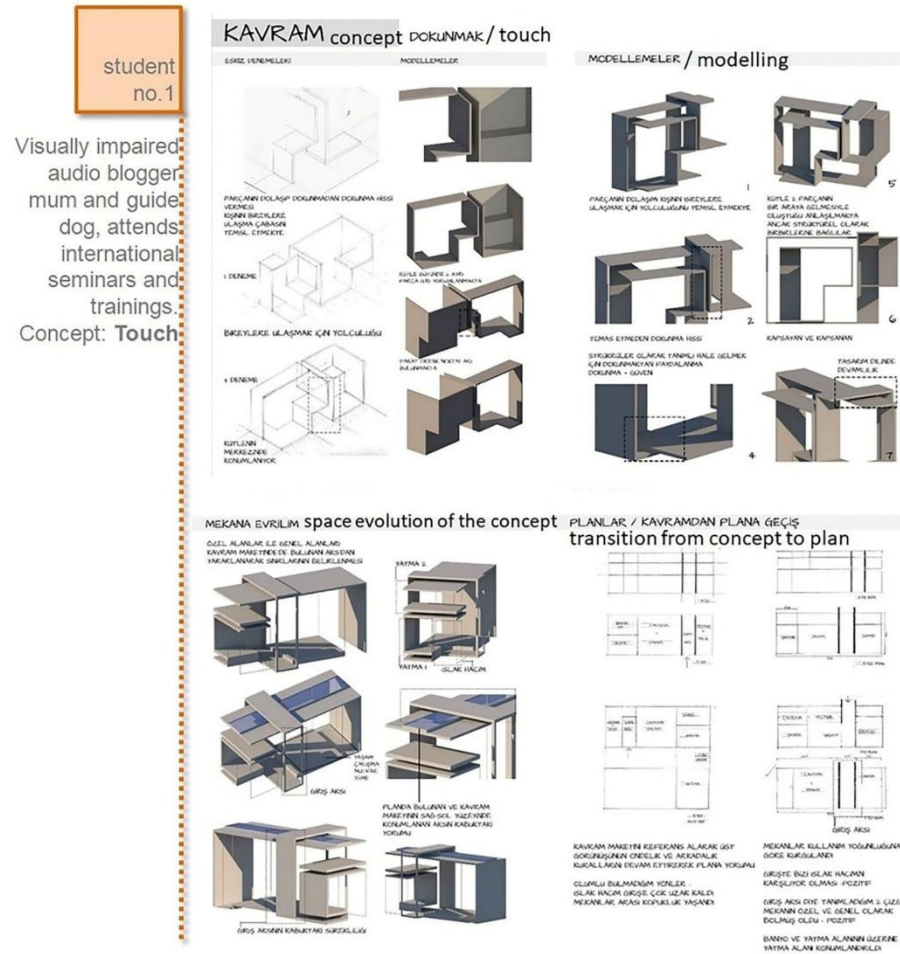

Figure 5. Concept model and spatial transformation of Student 1 Personal archive, 2021

Taking the concept of touching as a starting point, student number 1, based on the visually impaired user's experience of the space by touching, aimed for the piece to give the feeling of touch without moving around and touching, and represented the person's effort to reach individuals. Although the perception that the designed masses are formed by the combination of two separate parts in the whole is created, they are structurally connected to each other. The aim of this structure is to give the feeling of touching without contact, to reinforce the sense of trust with a design that covers and is covered, and to provide these with continuity in the design language.

In student number 6's study, the user is a married couple who enjoy travelling. They like travelling both because of their profession and to interact with their friends far away. Interacting with other people is an important part of their lives. The work of student number 6, who associates the desire to interact with people with the fact that the space interacts within itself and contains continuity, is shown in Figure 6. In the process of evolving the concept of interaction into space; the interaction between surfaces, fittings and spaces was achieved by establishing a

relationship with different connections (lighting, fittings, etc.). In doing so, two different linear elements, thick and thin, were used.
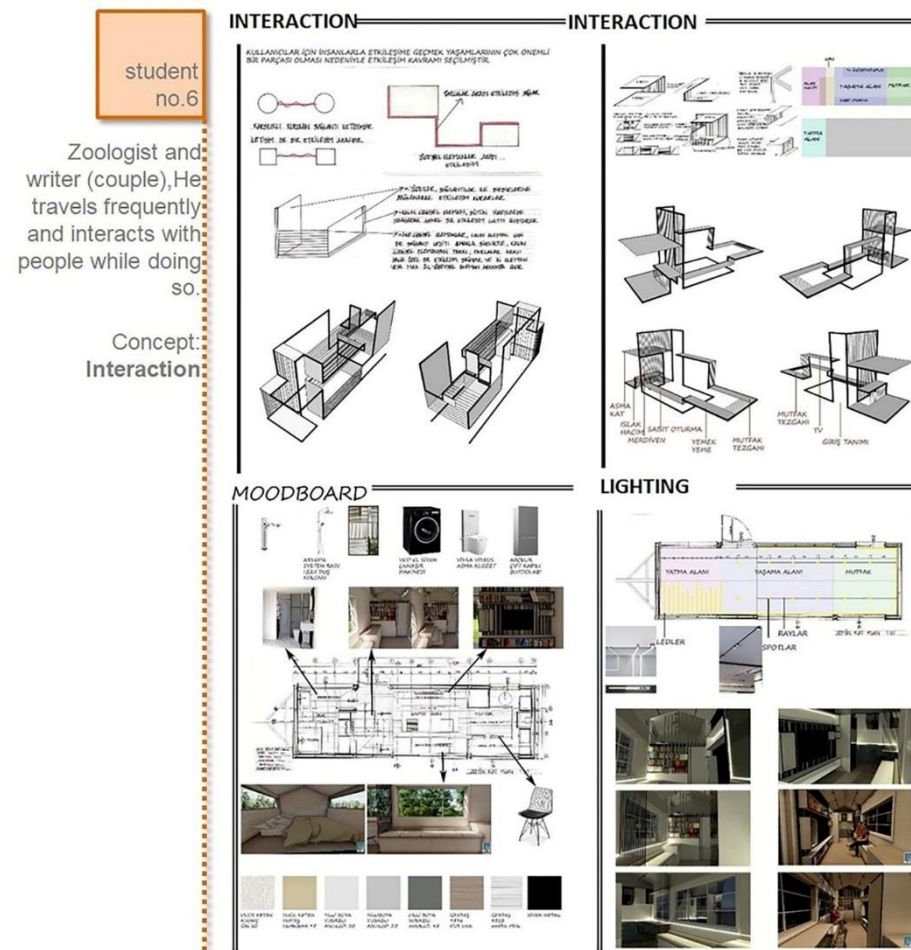

Figure 6. Student No. 6's work on the scenario, concept and spatial reflection of the concept
Personal archive, 2021

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In the scenario of student number 7, who wants to go on a world tour with a mobile Tiny House and at the same time participate in workshops to run a coffee shop, promote his own culture and get to know different cultures, the user lives alone. From this point of view, the student started from the concepts of birth-awakening. Asserting that every new beginning will create a new birth, the student transferred this view to his design based on the idea that there can be a single starting point or more than one starting point (Figure 7). As a result of the continuity of movement, different spaces were designed within the building. With the opening and closing service window and bar section designed to serve coffee, it is aimed to evoke the starting state. In order to make the concepts of rebirth and awakening more palpable in the space and to create the desired atmosphere, great importance was given to lighting solutions and openings in the building.
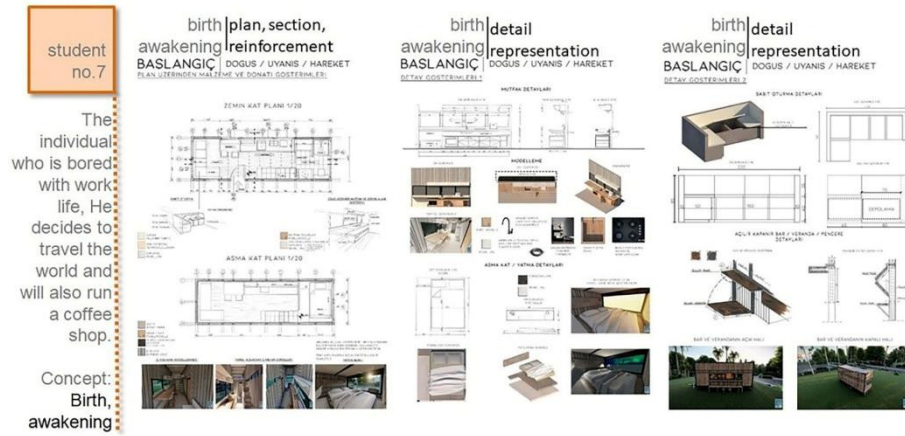
The process of an abstract work evolving into a concrete space and the process of creating an atmosphere of the determined concept constitutes another important step of the Interior Design I course. In this context, many alternatives were produced on how the concept models would evolve into the space. The work done in each lesson was criticized online via Zoom. When the concept models reached the desired stage, it was requested to scan visuals from various sources for creating atmosphere, which is another step of the study. From the images found, each student created a mood board sheet with reference to his/her own work. In this way, it was aimed to adapt the small-scale concept model to the scale of the space and to exhibit the design approach that enables the same language to be read throughout the building. In Figure 8, there are mood board examples prepared by some students for their own scenario and concept studies.

During the online sessions, it was observed that students' motivation occasionally decreased. At such times, informal online discussions were initiated to understand the difficulties encountered by the students. The aim was to determine whether these difficulties stemmed from the course method or from external factors. Based on the observations and student feedback, the factors affecting their motivation are summarised below (Table 3).

Table 3. Positive and negative sources of motivation (Personal archive, 2021)

Positive Motivations	Negative Motivations
Increased interaction by organising events online (workshops, symposiums, etc.)	Disruptions in internet access
Allowing the drawings to be made within the scope of the course to be made in digital environment, allowing students to learn drawing and modelling programmes by experiencing them	The environment (home, library, etc.) does not always have suitable conditions for the course, the student's access to technology is limited and insufficient
Since the drawings are allowed to be made digitally, expenses such as paper and printouts are eliminated	Inability to easily obtain stationery materials to be used for model making, lack of space and equipment
Time and energy spent on the road can be fully diverted to work	Restricted access to libraries due to the curfew during the pandemic
Easy and fast access to the course instructors outside of class hours through the WhatsApp group created for the course	Emotional breakdown due to restricted socialisation

The ongoing and unpredictable conditions make it necessary to revise course planning by rethinking teaching strategies, course content, learning outcomes, learning activities, and assessment approaches. To keep both instructors and students motivated toward achieving learning goals, system quality, course structure, learner-learner interaction, learner-content interaction, and self-discipline play a crucial role in course design (Suo & Guo, 2021). In line with this pedagogical framework, the evaluation of student projects focused on how learners applied these principles within the online studio environment.

The analysis of student works was carried out based on the parameters defined in the methodology section, focusing on how each student addressed problem definition, form generation and function correspondence under online conditions. This categorization enabled a structured evaluation of design performance and adaptation levels.

Based on this framework, the following section summarises how these parameters were reflected in student projects. All students who took the course successfully completed the concept development process and started to research materials and details in line with their scenarios after completing the evolution of the concept into space. At this point, each student was expected to produce original space and equipment analyses by going through the creative design process as required by the scenario.

These original designs constituted another key point in the stage of reflecting the concept to the space (Figure 9).
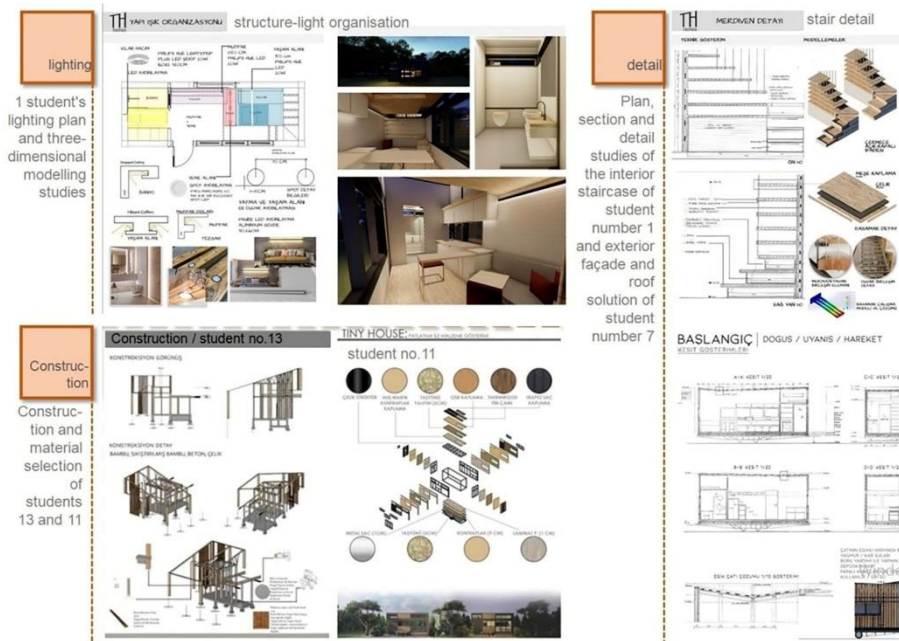
Finally, students were asked to organize their works according to a previously shared format for the exhibition to be opened on the artsteps website, an online exhibition platform, at the end of the semester. Since the organized exhibition work was not a planned part of the course period, it was not subject to any grading and participation was voluntary. Nevertheless, all students wanted to participate. The fact that additional works were requested for the exhibition and that these were completed quickly, as well as the production of more than what was requested, once again emphasized the importance of motivation sources in the study process. Some of these are: student 6, who prepared an amateur animation work with his own effort and uploaded it to YouTube website (Youtube, 2025); and student 1, who redesigned all his works on a single sheet by naming his work ToucHouse (Figure 10).

Figure 10. Sheet work of student number 1 including all his/her works Personal archive, 2021

During the transition to online education, students initially experienced difficulties in adapting to digital tools such as SketchUp,

Photoshop and digital drafting software, particularly due to limited prior experience and unequal access to equipment. Classroom observations indicated that these difficulties decreased significantly after weekly tool-based demonstrations, one-to-one feedback sessions, and the flexibility to combine hand drawing with digital refinements. These strategies played a critical role in sustaining students' adaptation and ensuring continuity in the design process.

The mixed-methods research design combines the strengths of both approaches while allowing their weaknesses to balance each other (Hammersley, 1996). As emphasized in the methodological literature, mixed methods, which bring together different research traditions, have the potential to generate more advanced knowledge than single (mono-method) designs could provide (Maxcy, 2003).

The findings of this case demonstrate that with clearly defined parameters, continuous instructor feedback, and structured digital tools, design studio pedagogy can successfully maintain its interactive and creative nature even in online settings. This highlights the potential of distance and hybrid learning as sustainable alternatives rather than temporary crisis solutions.

CONCLUSIONS AND RECOMMENDATIONS

This study demonstrates that the Interior Design I course can be effectively adapted to an online studio format without compromising its conceptual, iterative, and creative structure. The parameter-based framework developed throughout the semester provided a systematic way to monitor design development and evaluate student performance under distance education conditions, contributing to current discussions on flexible and hybrid studio pedagogies.

Findings indicate that students were able to sustain design learning outcomes, transform abstract ideas into spatial proposals, and maintain creativity despite limited physical interaction. The Tiny House design problem strengthened the relevance of the studio by grounding the assignments in real and contemporary issues, including both the Covid-19 pandemic and the 6 February 2023 earthquakes. This context encouraged students to develop socially responsive approaches and to explore compact and adaptable spatial solutions applicable to emergency housing and temporary shelters.

Based on these results, the study suggests several strategies for improving future design studios: developing hybrid models that integrate both hand drawing and digital tools, strengthening technical infrastructure, increasing student–student and student–instructor interaction, and expanding the use of accessible digital platforms.

The study also presents certain limitations inherent to the distance education process. Unequal access to computers, drawing tablets, and stable internet connections occasionally disrupted participation and slowed progress. The inability to manually intervene in students' models during three-dimensional studies reduced the immediacy of feedback

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compared to face-to-face studios. Some students, especially those living in crowded household environments, experienced difficulties in maintaining concentration and motivation.

Despite these challenges, an optional online exhibition was organized at the end of the semester (Artsteps, 2025). All projects were displayed in a digital format, and participating students received certificates from the Department of Interior Architecture and Environmental Design. This final event served as a motivating closure to the semester and reinforced students' sense of achievement during an otherwise restrictive period.

Beyond the specific findings, the parameter-based framework developed in the study provides a practical and scalable model for institutions seeking to reorganize studio courses during crisis periods or planned hybrid instruction. The framework's reliance on structured weekly feedback, accessible digital platforms, and clearly defined evaluation parameters makes it adaptable for programs with varying resources. At a broader level, the study highlights the value of integrating flexible hybrid studio models into long-term curricular planning to strengthen institutional resilience. From a societal perspective, the Tiny House scenario demonstrates how design studios can promote awareness of adaptable and sustainable spatial solutions—an issue of particular importance for countries frequently impacted by natural disasters.

Overall, the experience indicates that well-structured distance education can offer valuable flexibility for design disciplines and provides insights for the development of resilient and adaptable studio models in future crisis contexts.

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Resume

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