Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 2025; (56): 278-289 - Interior Architecture / Araştırma Makalesi / Research Article -

Comparison of Technical Drawing Course Education Model; The Case of Selcuk University Department of Interior Architecture

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ABSTRACT

In the wake of the February 2023 earthquake in Turkey, many educational institutions, including Selcuk University, adopted a partially distance education system for various courses. This study aims to assess the course performance of 70 students enrolled in the Technical Drawing-2 course, delivered via distance education in the spring semester, in comparison to their performance in the Technical Drawing-1 course, which was conducted in person during the fall semester of the same academic year. The study employed a psychometric measurement technique. The datas were converted into numerical data using SPSS version 29. The survey was designed using a 5-point Likert-type measurement model. The survey used a single group pre-test (Distance Education Model) post-test (Face to Face Education Model) design. The data was analyzed using the dependent t-test, frequency analysis, normality test, and Cronbach Alpha reliability analysis. The survey results indicate that students who took the Technical Drawing-2 course through both distance learning and face-to-face methods found the distance learning approach beneficial for sharing information about the course material. However, they also expressed a preference for face-to-face lessons. Moreover, they can better articulate their thoughts in a traditional classroom setting compared to a remote learning environment.

Keywords: Interior Architecture, Technical Drawing, Application Method, Distance Education.

Teknik Resim Dersi Uygulama Yönteminin Öğrenci Performansına Etkisi: Selçuk Üniversitesi İç Mimarlık Bölümü Örneği

ÖΖ

Türkiye'de Şubat 2023'te meydana gelen depremin ardından, Selçuk Üniversitesi de dahil olmak üzere birçok eğitim kurumu çeşitli dersler için kısmen uzaktan eğitim sistemini benimsemiştir. Bu çalışmanın amacı, bahar döneminde uzaktan eğitim yoluyla verilen Teknik Resim-2 dersine kayıtlı 70 öğrencinin ders performansını, aynı akademik yılın güz döneminde yüz yüze verilen Teknik Resim-1 dersindeki performanslarıyla karşılaştırmalı olarak değerlendirmektir. Çalışmada psikometrik ölçüm tekniği kullanılmıştır. Veriler SPSS versiyon 29 kullanılarak sayısal verilere dönüştürülmüştür. Anket 5'li Likert tipi bir ölçüm modeli kullanılarak tasarlanmıştır. Ankette tek grup ön test (Uzaktan Eğitim Modeli)-son test (Yüz Yüze Eğitim Modeli) deseni kullanılmıştır. Veriler bağımlı t-testi, frekans analizi, normallik testi ve Cronbach Alpha güvenilirlik analizi kullanılarak analiz edilmiştir. Anket sonuçları, Teknik Resim-2 dersini hem uzaktan eğitim hem de yüz yüze yöntemlerle alan öğrencilerin uzaktan eğitim yaklaşımını ders materyali hakkında bilgi paylaşımı açısından faydalı bulduklarını göstermektedir. Bununla birlikte, yüz yüze dersleri tercih ettiklerini de ifade etmişlerdir. Ayrıca, uzaktan öğrenme ortamına kıyasla geleneksel bir sınıf ortamında düşüncelerini daha iyi ifade edebilmektedirler.

Anahtar Kelime: İç Mimarlık, Teknik Resim, Uygulama Metodu, Uzaktan Eğitim.

1. Introduction

Technological advancements have broadened the boundaries of time and location in education, enabling individuals to access information more rapidly. These developments have not only increased access to technology but also heightened interest in its use, thereby enriching the educational experience. The distance education model facilitates connections between students and teachers without regard to their physical locations. Although this approach has long been utilized in Turkish educational institutions, its popularity has surged in response to the recent pandemic and natural disasters. Currently, more than 100 universities at the postgraduate level have adopted the distance learning model. In recent years,

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distance learning has gained significant popularity due to various factors, including pandemics, natural disasters, geographic barriers, increasing educational demands, and time constraints. Following extensive discussions, the integration of distance education into the current educational framework has emerged as a viable solution, particularly in times of crisis such as natural calamities and epidemics (Norasli, 2024:386). These global challenges have disrupted numerous societal balances across fields such as economics, sociology, psychology, and others (Karagülle, 2023:1). As a result, education and training initiatives worldwide have evolved, with over a billion students now pursuing further education through online distance learning.

The education system in Turkey has been influenced by recent global events. In response to the earthquake that occurred on February 6, the Higher Education Council decided to implement a distance learning system at several universities for the 2022–2023 academic year. Selcuk University was among the institutions that adopted this approach.

This study examines the impact of the Technical Drawing course on the learning outcomes of face-toface students within both traditional and virtual learning environments during the fall and spring semesters of the 2022–2023 academic year. Only students who took the course in person during the autumn semester and online during the spring semester were included in the study. The research assessed various factors, including course content, instructional strategies, and student feedback. It also explored how application techniques influenced students' knowledge of technical drawing, development of skills, and ability to think creatively. Table 1 presents details about the course duration, instructional strategies, and materials related to the pandemic.

(Produced by the corresponding author)							
	Face-to-Face education	Distance Education					
Class Time	4* 40 minutes	4*20 minutes					
Homework Control	Yes	Evet					
Subject Teaching	Yes	Yes					
Application During Class (Student)	Yes	Partly					
Students' Active Participation in Class	Yes	Yes					
Use of Materials	Printed and digital outputs	Printed and digital outputs					
Teaching via Drawing	Yes	Yes					
Drawing Method in Subject Teaching	Hand drawing	Hand drawing					

Table 1. Technical Drawing Course Methods and	Techniques
(Droduced by the corresponding outport)	

2. Literature

Due to the adverse effects on health and the occurrence of natural disasters, such as earthquakes, around the globe, the traditional in-person education system is increasingly transitioning into various digital formats, removing the necessity for physical spaces. This approach, known as distance education, has been the subject of extensive research, particularly since the onset of the pandemic and continuing to the present day. A review of the literature on the distance education model shows that this topic is being explored across all educational levels, from elementary school through undergraduate and graduate studies.

Sakarya (2021:282) found that students in the Department of Interior Architecture at Çukurova University had a favorable opinion of the distance learning approach used in the Technical Drawing course. However, when the traditional studio method and distance learning approaches were contrasted, the students tended to favor the studio approach.

Metin et al. (2017:641), in their study of students at Uşak University, Banaz Vocational School, concluded that utilizing a distance education system could be an effective practice, as long as students had internet access in their dormitories or homes and attended the courses consistently. In their study on nursing students, Kürtüncü and Kurt (2020:66) found that most students believed that both theoretical and practical courses would be inadequate with distance education.

Serçemeli and Kurnaz (2020:40) identified several advantages of distance learning, including learning flexibility, the ability to rewatch video recordings, and the time savings it offers in their study on students pursuing accounting education. However, they also noted some drawbacks, such as feelings of social

isolation and challenges in accessing instructors or the internet. Consequently, they recommended the implementation of a flipped education system that merges traditional teaching methods with online learning techniques, as a more effective approach to delivering accounting education.

In the study of the faculty of education's students using the distance learning system Moodle (Modular-Object-Oriented-Dynamic-Learning-Environment), Yalman (2013:1395) found that nearly 77% of the students would still prefer in-person instruction even if their department offered distance learning options after completing coursework via the distance education management system.

Seyhan (2021:65) analyzed the challenges encountered by teacher candidates during distance learning amid the pandemic. These challenges encompassed learning difficulties, issues with internet access, and the lack of appropriate educational materials and supportive learning environments. The author also highlighted the benefits of distance learning, such as the flexibility to study at any time and from any location, the opportunity to engage in research, access to a wide range of reading materials, and the ability to enhance various learning skills.

Hakkari (2018:1140) reported that students at Mustafa Kemal University Kırıkhan Vocational School largely regarded the distance learning system as ineffective and unproductive. This opinion stemmed from several factors, including technical issues with the system, challenges related to internet access, and the availability of computers and other necessary tools. Moreover, many students lacked the technological infrastructure needed to effectively engage with the system. They also encountered difficulties in communicating with instructors and obtaining answers to their questions due to their inability to attend classes in person. Consequently, these challenges contributed to a decline in their overall success in the program. Due to the online nature of the lessons, students have found it challenging to maintain the same level of discipline as they would in a traditional classroom setting. They often experience distractions and express a preference for face-to-face lessons. However, they do appreciate the convenience of accessing lesson videos and notes whenever and wherever they want, without the need to go to school.

Çalışkan et al. (2017:529) administered a satisfaction survey regarding distance education to 107 students. The results indicated that the participants expressed a high level of satisfaction with their experiences in the distance learning courses they undertook.

A mixed-method study conducted by Altawalbeh and Ahmad (2022:43) involved 28 science faculty members from the University of Jordan. Utilizing quantitative descriptive-analytical methodologies, the study explored the impact of school closures during the COVID-19 pandemic on science education. Researchers employed a modified questionnaire based on a national survey conducted in Ireland. The findings revealed that distance learning had a significant effect on science education. Participants highlighted various challenges, including issues with internet connectivity and a lack of familiarity with new technologies and teaching methods. A recent study explored the challenges and advantages of distance learning. It revealed that 75% of participants regarded technological difficulties as the most significant challenge. On a positive note, participants indicated that they acquired new teaching methods and instructional skills through distance learning. Nevertheless, a majority expressed a preference for traditional teaching approaches, suggesting that blended learning should be utilized to enhance science instruction.

Understanding the effects of the Covid-19 disruption on the learning, assessment, and social activities that distance learning students typically engage in, as well as examining the relationship between these effects and background characteristics (sociodemographic and study characteristics), were the goals of Aristeidou and Cross's 2021 study of 555 undergraduate students enrolled at The Open University in the UK. The results demonstrated that students were generally less involved in study activities, with social activities (e.g. using email for study purposes) having the lowest negative impact and learning-related activities (e.g. attending live sessions) having the highest (Aristeidou & Cross, 2021:695).

A study conducted by Gaidelys et al. (2023:4) found that teachers reported a general decline in students' learning outcomes during the COVID-19 pandemic. This research explored the factors affecting student learning during the distance learning phase, considering the perspectives of both parents and teachers. The study identified several advantages of distance education that positively influence the learning process and, consequently, student outcomes. These advantages include a comfortable learning

environment, the flexibility to access a variety of learning resources at home, and the ability for students to view course recordings at their convenience.

In a 2018 study led by Firat and his colleagues, the goal was to evaluate the intrinsic motivation levels of students participating in open and distance education. The researchers gathered data from 1,639 distance education students across 22 different programs, utilizing an intrinsic motivation survey specifically designed for e-learning environments. The analysis indicated that these students exhibited notably high levels of intrinsic motivation in their e-learning experiences (Firat et al., 2018:63).

Three negative conditions were identified by Kang (2021) in the study: educational disparity in access to the digital world, the decline in course motivation that occurs in the distance education system, and the detrimental effects of computer-aided instruments employed in education. The study underlined the necessity of increasing funding for both the infrastructure of the distance education model and the people who deliver instruction.

The Technical Drawing course offered by Selcuk University's Department of Interior Architecture was included in the study's scope. Apart from theoretical information, the distance education system also includes disciplines that offer design education that are heavy on applied courses meant to put the learned material into practice (Carlson and Sullivan, 1999:20). Students can remember more information by applying what they have learned to real-world scenarios through application-based learning (Cridlin, 2007:151). To experience knowledge, these courses provide students with the duty of acting cooperatively and establishing the link between theoretical and practical logic (Mun & Arslan Selçuk, 2018:12).

The literature review emphasizes the merits and drawbacks of both teaching methods. The distance learning system (asynchronous) provides enhanced flexibility, enabling students to engage with the material at their own pace. However, this flexibility may also lead to feelings of isolation and disconnection (Provenzi & Tronick, 2020). Conversely, the face-to-face (synchronous) education system facilitates real-time interaction and fosters a sense of community, but it may present challenges for students in different time zones or those with varying schedules (Faresta, 2024:260).

3. Metarial and Method

Table 2 illustrated a flow chart that outlines the procedure followed in this investigation. The initial step involved defining the questions to be addressed and completing the literature review on the subject. The subsequent phase included designing surveys aligned with the methodologies of the Technical Drawing course. Adjustments were made based on insights from preliminary survey studies, and the final versions of the surveys were prepared. The primary objective of the student group survey was to evaluate whether the remote learning system for Technical Drawing courses and the in-person application method had a positive or negative effect on learning activities. Table 2 details the experiment and the procedures utilized.

Table 2. The Working Process of The Study								
(Produced by the corresponding author)								
Experiments	Aim	Subjects	Task	Scales				
Positive/negative effects of Technical	Examining the	Freshmen of the	To analyze how the	Cronbach Alpha				
Drawing course application method on	positive/negative	Interior	application method of	Reliability Analysis				
learning action. Pre-Test-Post-Test.	effects of the	Architecture	the Technical Drawing	Normality Test,				
	Technical Drawing	Department taking	course affects the	Frequency Analysis,				
	course application	Technical Drawing	learning process and to	Dependent t-test				
	method on the	course33 Male, 37	address the identified					
	learning action.	FemaleTotal 70	questions.					

In the subsequent phase, survey assessments were conducted with the participants following their completion of the curriculum-based instruction for the designated course. This evaluation encompassed students who engaged in both face-to-face and distance learning modalities at the conclusion of the academic year.

The survey measurements were used to digitize the data. After this phase, the collected data was subjected to a number of statistical analyses, and the research findings were created. The process was finished once the study's results were assessed and a section with conclusions and suggestions was written.

This study was presented as a paper titled 'The Effect of Technical Drawing Course Application Method on Student Performance: The Case of Selçuk University Interior Architecture Department' in the congress titled '6th ISPEC International Conference on Contemporary Scientific Research' which was held in France/Paris between 25-28 October 2024 within the framework of the project numbered 24701157 supported by Selçuk University Rectorate Scientific Research Projects (BAP) Coordinatorship.

3.1. Survey Design and Samples

The survey was designed using the procedures outlined in the Technical Drawing application, along with a psychometric measurement approach. Statements related to the face-to-face and distance learning models of the Technical Drawing course were organized under specific subheadings within the survey. On November 13, 2023, the Scientific Ethics Evaluation Board of the Faculty of Architecture and Design at Selcuk University approved the survey study, issuing a decision numbered 05/06. Table 3 lists the survey study that was conducted for this research.

Table 3. Survey Design Applied Within the Scope of Technical Drawing Cours	se
(Produced by the corresponding author)	

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		Descriptions	1	2	3	4	5
	lass Time	The materials used in the Technical Drawing Course in the distance education process (lecture notes, documents, photographs, etc.) were useful. The duration of the Technical Drawing Course in the distance education process (minimum 20 minutes per lesson) is sufficient.					
	Ö	In the Technical Drawing course in the distance education process, the instructor's teaching/processing speed was at a normal level.					
em tanding bject	During distance learning, I felt free to voice my thoughts in the Technical Drawing Course setting. In the distance learning Technical Drawing Course, the instructor provided straightforward answers to students' queries						
meter	ndersta the sub	My understanding of Technical Drawing was aided by the assignments I completed for the remote learning course.					
Descriptions Descriptions and the process (lecture notes, documents, photographs, etc.) were useful. The duration of the Technical Drawing Course in the distance education process (lecture notes, documents, photographs, etc.) were useful. The duration of the Technical Drawing Course in the distance education process (tecture notes, documents, photographs, etc.) were useful. The duration of the Technical Drawing Course, the instructor's teaching/processing speed was at a normal level. During distance learning, I felt free to voice my thoughts in the Technical Drawing Course setting. In the distance learning of Technical Drawing Was aided by the assignments I completed for the remote learning process. I can consistently monitor the Technical Drawing course in the distance and the distance learning process, I can consistently monitor the Technical Drawing course materials. During the distance learning process, I can consistently monitor the Technical Drawing course more quickly because of the Distance Education process. During the distance ducation process, I can use my time more efficiently for the Technical Drawing course (practice assignments, course review, etc.). I can practice Technical Drawing lessons in a more comfortable setting (my room, my home, an office, etc.) during the Distance Education process. My application performance is improved when I take the Technical Drawing lesson through the distance learning process, I feel competent in Technical Drawing course. I vould like to take Technical Drawing Course in the distance education process. I vould like to take Technical Drawing Course in the distance education process. I vould like to take Technical Drawing Course in the distance education process (internation process, I feel competent in Technical Drawing course in the distance education process (minimum 40 minutes per lesson) is sufficient. In the Technical Drawing course in the distance education process (minimum 40 minutes							
	tessi ug urse trent	Throughout the distance learning process, I can consistently monitor the Technical Drawing course materials that are uploaded to the system.					
Acces Acces ng ng cours cours		During the distance learning process, I have easy access to the Technical Drawing course materials.					
ä	ing me ly	I can learn the material in the Technical Drawing course more quickly because of the Distance Education process.					
Usin time ty ty		During the distance education process, I can use my time more efficiently for the Technical Drawing course (practice assignments, course review, etc.).					
	ass atio cess	I can practice Technical Drawing lessons in a more comfortable setting (my room, my home, an office, etc.) during the Distance Education process.					
Builting processing speed was at a normal level. During distance learning, I felt free to voice my thoughts in the Technical Drawing Course setting. In the distance learning Technical Drawing Course, the instructor provided straightforward answers to students' queries. My understanding of Technical Drawing was aided by the assignments I completed for the remote learning course. Since the technology supported both auditory and visual components during distant learning, I believe it helped me learn. Throughout the distance learning process, I can consistently monitor the Technical Drawing course materials. I can learn the material in the Technical Drawing course more quickly because of the Distance Education process. During the distance learning process, I can use my time more efficiently for the Technical Drawing course more quickly because of the Distance Education process. Ny application performance is improved when I take the Technical Drawing lesson through the distance learning platform. Lessons in technical drawing are more effective when taken remotely. At the end of the Distance Education process, I feel competent in Technical Drawing course. I would like to take Technical Drawing Course in the distance education process. I would like to take Technical Drawing Course in the distance education process. I can practice Technical Drawing Course in the distance education process. I would like to take Technical Drawing Course in the distance education process. I would like to tak							
	e f	Lessons in technical drawing are more effective when taken remotely. At the end of the Distance Education process, I feel competent in Technical					
	Metho of applic ion o the cours	Drawing course. I would like to take Technical Drawing course via distance education process.					
on	ne	The materials used in the Technical Drawing Course in the distance education process (lecture notes, documents, photographs, etc.) were useful.					
lucati ysten	ass tir	The duration of the Technical Drawing Course in the distance education process (minimum 40 minutes per lesson) is sufficient.					
Ea S.	Cľ	In the Technical Drawing course in the distance education process, the instructor's teaching/processing speed was at a normal level.					

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స్ట	During the face-to-face learning process, I felt free to voice my thoughts in the Technical Drawing Class setting.
andir bject	During the face-to-face learning process, the instructor in the Technical Drawing Class provided clear answers to the students' inquiries.
ndersi the su	My understanding of the subject was aided by the assignments I completed in the Technical Drawing class during the face-to-face learning process.
Ū	I believe that the face-to-face educational system facilitated my learning in both the visual and auditory domains.
ssing rse tent	I can regularly follow the Technical Drawing course content in the face-to-face education system.
Accet	I can quickly access the Technical Drawing course content during the face-to-face education process.
ing ne ently	During the face-to-face education process, I can learn the topics in the Technical Drawing course faster.
Usi tir effici	During the face-to-face education process, I can use my time more efficiently for the Technical Drawing course (practice homework, lesson review, etc.).
atio	During the face-to-face education process, I can do Technical Drawing course applications (in a classroom environment) in a more comfortable environment.
In-Cla pplic	Having the Technical Drawing course in a face-to-face education process positively affects my application performance.
A H	Technical Drawing course is more efficient in the face-to-face education process.
od of ation ourse	At the end of the face-to-face education process, I feel competent in Technical Drawing course. I would like to take Technical Drawing course during the face-to-face education process.
Meth applic of the	At the end of the face-to-face education process, I feel competent in Technical Drawing course. I would like to take Technical Drawing course during the face-to-face education process.

3.2. Measurement Methods and Data Collection

The survey employed a 5-point Likert-type measurement scale, with scores ranging from 1, indicating a negative response, to 5, indicating a positive response, as presented in Table 2. The study utilized a single group for both the pretest (Distance Education Model) and posttest (Face-to-Face Education Model). This method, known as a single-group pretest-post test design, aims to evaluate the impact of an intervention on a group of participants, as illustrated in Figure 2. Within this framework, participants complete a pretest, receive an intervention, and then take a post test to assess any changes. The same assessments are conducted at different times for both the pretest and posttest.

3.3. Data Analysis

The responses from students who participated in the survey were analyzed for normality using SPSS version 29. The statistical methods applied included reliability analysis, frequency analysis, and the dependent sample t-test. These methods were used to determine whether there were statistically significant differences between the survey results at the end of both semesters for independent groups. Specifically, the dependent sample t-test assessed the differences between two measurements within the same group of students who completed the Technical Drawing course through both distance education and face-to-face instruction.

4. Findings

The data sets gathered from the surveys given at the end of the semester for the Technical Drawing course were subjected to reliability, normality, frequency, and dependent sample t-test analyses. Table 4 presents the reliability analysis of the face-to-face and distance learning approaches for the Technical Drawing course.

Table 4. Reliability Analysis Results of Technical Drawing Application Methods

 (Produced by the corresponding author)

(i foldaced by the corresponding author)								
Class	N	%	Cronbach's Alpha	Evaluation				
Technical Drawing Distance Education	70	100	,911	Strong				
Technical Drawing Face to Face Education	70	100	,928	Strong				

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The reliability of the survey statements was established through a reliability analysis of the data, which resulted in Cronbach's Alpha values of 0.911 for the distance education method and 0.928 for the face-to-face education method (Table 4). Following the confirmation of data reliability, the next step is to assess whether the data is normally distributed. The outcome of this assessment will inform the decision on whether to use parametric or non-parametric tests in the statistical analysis.

Table 5. Technical Drawing Application Methods Normality	Test Results
(Produced by the corresponding author)	

Ň	Skewness	1	Kurtosis		Shapi	ro-Wilk
Course Data Set	Statistic	Std. Error	Statistic	Std. Error	df	Sig.
Technical Drawing Face to Face Education	-,289	,287	-,238	,566	70	,637
Technical Drawing Face to Face Education	-681	,287	1,250	,566	70	,026

The skewness and kurtosis values were examined for the normality test to see if the groups displayed a normal distribution. The skewness and kurtosis values were found to vary between -.289 and -.681 and -.238 and 1.250, respectively (Table 5). A normal distribution was recognized when the skewness and kurtosis values fell between -1.5 and +1.5 (Tabachnick, Fidell, & Ullman, 2013). The groups were found to be normally distributed across all courses based on the results of the normality tests, and parametric tests were deemed suitable for use in the data analysis. Seventy people participated in the survey, and Table 6 lists the frequency ranges of the devices that the students who took part in the survey used while enrolled in the distance learning program.

Table 6. Frequency Ranges for Devices in The Distance Education System (Produced by the corresponding author)



(Produced by the corresponding author)

Table 6 and Figure 1 indicate that 82.9% of participants accessed the distance learning system using a computer, while 10% used a phone and 7.1% utilized a tablet. The survey process and job descriptions were explained to the students who participated in the study as part of the Technical Drawing course. To evaluate and compare the effectiveness of feedback, the techniques used in technical drawing courses for both in-person and remote learning models are categorized and illustrated in Figure 2.

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The data sets gathered from the tests to identify the advantages and disadvantages of the instruction provided for the Technical Drawing course's application method during the fall and spring semesters were subjected to a dependent sample t-test (Table 7).

 Table 7. Freq Dependent T-Test Analysis Results According to Technical Drawing Course

 Application Methods

 (Produced by the corresponding author)

				· ·		
	Method	Ν	$\overline{X}_{(ss)}$	t	df	р
General	Distance	70	60,12 (12,34)			
	Face-to-Face	70	67,22 (11,76)	- 2,857	69	,003
Course duration	Distance	70	7,71 (1,39)			
	Face-to-Face	70	7,18 (1,68)	2,345	69	,011
Understanding the subject	Distance	70	15,21 (2,49)			
	Face-to-Face	70	15,74 (2,68)	-1,180	69	,121
Accessing course content	Distance	70	6,15 (2,24)			
_	Face-to-Face	70	7,25 (1,79)	-2,603	69	,006
Using time efficently	Distance	70	7,88 (1,71)			
	Face-to-Face	70	7,00 (1,81)	2,651	69	,005
Application process	Distance	70	9,02 (3,24)			
	Face-to-Face	70	11,50 (2,74)	-3,826	69	,001
Application method	Distance	70	2,24 (1,33)			
	Face-to-Face	70	4,01 (0,99)	-6,693	69	,001

Regarding the implementation method of the course, it was found that there was a statistically significant difference between the means of the subheadings of implementation process and implementation method (p=,001). However, no significant differences were observed in areas such as the speed of expression, understanding of the subject matter, efficient use of time, or accessibility of course content.

The survey results revealed a significant difference in the average responses concerning the application methods used in the Technical Drawing course. Specifically, an analysis of responses indicated that 77,1% preferred the face-to-face education model, while only 18,6 % opted for the distance education model. Additionally, there was an abstention rate of 4,3%. These findings suggest that the face-to-face education model was notably more effective in delivering the course (Figure 3).



Figure 3. Comparison Of Technical Drawing Course Education Model (Produced by the corresponding author)



5. Discussions and Conclusion

The findings obtained from the technical drawing course application methods included in the scope of the study were interpreted and compared with similar studies in the literature review. The materials utilized in the course were found to be advantageous due to their relevance to the question groups within the course process, especially in the context of the distance education model. Furthermore, the duration of the course process was deemed adequate. The course materials were effective, and students responded positively to the instructor's timely explanations and the approach taken to present the material. Overall, it can be concluded that students had a favorable experience with the distance learning system. In the context of the questions related to understanding the subject, it is evident that students struggle to express their opinions comfortably in a distance education environment. The findings indicate that the questions posed by the instructor are answered clearly and understandably. Additionally, the assignments provided are effective in enhancing comprehension of the subject matter, and the course content, supported by audio and visual materials, positively influences learning performance. When examining the questions concerning access to course content, several positive aspects of the distance education system emerge. These include the ability to share data in a digital environment, the ease and opportunity for repeated access to information, and the absence of time constraints. Upon examining the question groups related to time efficiency, it is evident that students learn the material more swiftly, complete practice tasks, and utilize their time more effectively when they have the opportunity to revisit the lesson. The in-class application process is highly regarded, as it enables students to work on their applications in a more relaxed environment with ample space. The overall findings from studies conducted by Serçemeli et al. (2020:40), Metin et al. (2017:641), Firat (2019:63), Gaidelys (2023:4), Calişkan et al. (2017:529), and Seyhan (2021:65) which present a positive view of the distance education system-align with this observation. However, the study also reveals a different perspective: the application phase of the course may negatively affect learning performance when conducted through this system.

An examination of the face-to-face education model, particularly about the study's application method, revealed that the course materials were beneficial to the various groups participating in the course process. Positive outcomes were observed, even though the course duration was longer than that of a distance education program. In the classroom setting, the practice of sharing course materials proved to be advantageous. Students expressed appreciation for the instructor's ability to explain and present the material efficiently. Overall, the findings suggest that students held a generally favorable view of the faceto-face learning environment. The research indicates that students feel more comfortable expressing their opinions in the classroom during face-to-face instruction, particularly when question groups are utilized to enhance their understanding of the subject. In contrast, feedback regarding the effective use of time and access to course content in distance education has been predominantly negative. Furthermore, it was found that learning performance is positively influenced when the course's application phase occurs in a face-to-face classroom setting. The overall findings of studies by Sakarya (2021:282), Kürtüncü et al. (2020:66), Yalman (2013:1395), Hakkari (2018:1140), and Aristeidou and Cross (2021:695) support the advantages of face-to-face education in this context. Despite the advantages of distance learning, students generally prefer attending classes in person rather than through online education. This preference persists even though they feel confident in their knowledge and skills to complete the Technical Drawing course.

The course includes an application phase, which distinguishes it from other studies on distance education systems. One factor that may influence the study's outcome is the face-to-face teaching approach used in applied courses. This method allows students to directly absorb the knowledge and expertise of their instructors while engaging in hands-on applications. The significance of a communication-friendly environment in applied courses is also emphasized, as in-class learning enhances performance, particularly when accompanied by feedback. Additionally, the face-to-face educational system fosters the development of students' sense of responsibility, strengthens peer relationships, and enhances their sense of belonging to both their profession and the institution.

With the upcoming changes to the Technical Drawing course curriculum, a mixed-method that combines both traditional and innovative teaching methods can be developed. This approach aligns with the research conducted by Altawalbeh, and Al-Ajlouni, (2022:43). Furthermore, by providing training to

faculty members on innovative distance education techniques (Malik, 2015:238), we can address and improve the challenges associated with distance education for educators.

This study was presented as a paper titled 'The Effect of Technical Drawing Course Application Method on Student Performance: The Case of Selçuk University Interior Architecture Department' in the congress titled '6th ISPEC International Conference on Contemporary Scientific Research' which was held in France/Paris between 25-28 October 2024 within the framework of the project numbered 24701157 supported by Selçuk University Rectorate Scientific Research Projects (BAP) Coordinatorship.

Çıkar Çatışması Beyanı / Conflict of Interest

Çalışmada herhangi bir kurum veya kişi ile çıkar çatışması bulunmamaktadır. There is no conflict of interest with any institution or person in the study.

İntihal Politikası Beyanı / Plagiarism Policy Bu makale İntihal programlarında taranmış ve İntihal tespit edilmemiştir. This article was scanned in Plagiarism programs and Plagiarism was not detected.

Bilimsel Araştırma ve Yayın Etiği Beyanı / Scientific Research and Publication Ethics Statement

Bu çalışmada Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi kapsamında belirtilen kurallara uyulmuştur.

In this study, the rules specified within the scope of the Higher Education Institutions Scientific Research and Publication Ethics Directive were followed.

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