International Journal of Landscape Architecture Research
E-ISSN: 2602-4322 7(2): 117-134, 2023
Research Article

# EVALUATION OF LANDSCAPE ARCHITECTURE STUDENTS' DISTANCE EDUCATION AND TRAINING EXPERIENCES WITH NOMINAL GROUP TECHNIQUE

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(Received 24th August 2023; accepted 08th November 2023)

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**ABSTRACT.** This research was carried out with the participation of Bursa Uludag University Faculty of Agriculture Department of Landscape Architecture students to determine the efficiency of distance education in the landscape architecture profession during the Covid-19 epidemic, what the priority problems are in distance education, and which issues to work on in what order to continue the learning processes in a qualified manner without interrupting the learning processes. It is designed to. Nominal Group Technique (NGT), one of the process improvement methods, was used in the research. NGT is a problem-solving technique that relies on human opinions and judgment. This technique consists of determining the topic and forming team members, idea generation, interpretation/explanation, voting/scoring, collecting the points given to the ideas, and prioritizing the opinions and evaluations. Within the scope of the study, many ideas were obtained, and similar ones were combined. Despite the combinations, the large number of ideas required reducing them to a manageable number of ideas through a systematic voting technique. Six sets were created with the ideas generated by this requirement. The sets obtained from the study were also presented for scoring. According to the results obtained here, it has been concluded that distance education in landscape architecture has many negative aspects in terms of socio-cultural, psychological/spiritual, learning, and physical aspects. In contrast, it has many positive aspects in terms of economic and exam aspects.

**Keywords:** d*istance education, COVID-19, landscape architecture, nominal group technique.*

## INTRODUCTION

The first case of COVID-19 in humans was detected in Wuhan, People's Republic of China, in December 2019. The World Health Organization (WHO) declared the COVID-19 outbreak a Public Health Emergency of International Concern on January 30, 2020, and a pandemic on March 11, 2020 (WHO, 2020). The main measures taken on a global scale to keep the epidemic under control were curfews and regulations for controlled spatial use where social distance was maintained. In Turkey and all over the world, in all education and training institutions where it is not possible to perform social distance rules, the distance education process has been started by the Ministry of National Education and the Council of Higher Education. Distance education in Turkey continued from March 2020 to September 2021. The distance education process has caused various difficulties, especially in the education provided by the design professional disciplines of universities. It was determined that students and academics had challenges in some areas of distance education in landscape architecture departments where planning, design, and engineering

inputs are used extensively, and it was decided to evaluate the situation with the nominal group technique by addressing the issue through the students.

The nominal group technique (NGT) is a problem-solving method that relies on human opinions and judgment. Sorting a large number of opinions generated by brainstorming or other means in order of importance by ensuring equal participation is called the Nominal Group Technique (Kocaman, 2017; Canay, 2017). This technique is called nominal because there is very little interaction between group members so that group members can make independent decisions. The reasons why the Nominal Group Technique was preferred in the research are as follows:

- Highlighting more unique ideas,
- Since the interaction between group members is very low, there are no discussions or unnecessary interactions between them,
- Achieving satisfactory results,
- Having a subjective approach,
- Being a qualitative method,
- It ensures that an individual and then a team decision is made on a subject.

Although landscape architecture may be considered a new term, it is an old professional discipline as a phenomenon. Before the 1800s, the discipline, better known as landscape gardening, was generally practiced by arranging the gardens or immediate surroundings of structural complexes such as palaces, royal estates, castle and temple gardens, and mansions. The most important example of this period is Andre Le Notre's Garden design of the Palace of Versailles for Louis XIV (Loudon, 1840). The term landscape architecture was first used by Meason (1828) in his book "On the Landscape Architecture of the Great Painters of Italy". Frederick Law Olmsted and Calvert Vaux first used this term as a professional title in 1863. Implementing the Central Park project in New York was a turning point for landscape architecture. Subsequently, the green network planning called Emerald Neckless, prepared by Olmsted for Boston, attracted great attention, and the profession began to be implemented in European cities by pioneers such as Patrick Geddes, Thomas Mawson, and Beatrix Farrand (Beveridge, 2023).

Undergraduate education in the landscape architecture discipline has a relatively short history. However, it has developed rapidly in the last 100 years in terms of both content and scope and diversity of teaching styles. Before the establishment of landscape architecture as a discipline in universities, there was a long-established tradition in garden and landscape design, as mentioned above. In 1900, Harvard University established the first master's program in garden and landscape architecture, while in Europe, a garden art class was established at the School of Fine Arts in Düsseldorf in 1909. The Norwegian Agricultural University established its first master's degree in 1919. During the first decades until the 1960s, there were very few educational programs, at least one in most countries. Another reason for this was that, since it was a newly established professional discipline, very few qualified academics knew all the subjects studied in landscape architecture. Over time, the fields of study have become apparent, and the number of qualified academics has increased (Jorgensen et al., 2020).

Undergraduate education in the landscape architecture profession in Turkey started with the Ornamental Plants Branch department established at Ankara Higher Agricultural Institute in 1933. Landscape architecture education started at Istanbul University, thanks

to Alexis Chenchine, who taught the history of parks and garden art at Istanbul University Faculty of Forestry in 1939. With the establishment of Ankara University in 1946, the Department of Garden Architecture and Afforestation started education within the Faculty of Agriculture. In 1968, it was transferred from chair status to department status and started to provide education as one of the ten faculty departments under the Landscape Architecture and Ornamental Plants Department. Since 1990, department graduates have been given a landscape architecture diploma (Ortaçeşme et al., 2014).

The landscape architecture department at Bursa Uludağ University was established in 1999 within the Faculty of Agriculture. Master's degree education started in 2014, and undergraduate education started in 2018. As of 2021, there are students in the first three classes in the department. The department had its first graduates in June 2022. In undergraduate education, 24 compulsory courses are theoretical, 24 are applied, 41 of the elective courses are theoretical, and 5 are applied. 65 of the courses offered in the department are theoretical, and 29 are applied.

Universities worldwide have widely accepted that distance education is the most effective method for preventing contagion during epidemic management (Telli Yamamoto & Altun, 2020). The University of Washington was one of the first universities to move its courses to online platforms during the pandemic and offered online courses for 50,000 students.

The President of YÖK at the time, Prof. Dr. Yekta Saraç, announced that education was suspended for three weeks in all higher education institutions as of March 16, 2020 (URL-3). However, before the end of these three weeks, it was announced that the distance education system was switched to all universities in Turkey as of March 23, 2023, after the emergency evaluations of the universities' capabilities suitable for distance education (YÖK, 2020).

Distance education can be defined as educating students individually in their residential environment without needing a physical school environment. The first practice of distance education in the world started with the "Steno Lessons" advertisement published in the Boston newspaper in 1728. In the 19th century, "Letter Composition Lessons" began to be given to women at the Swedish University, and the University Correspondence College was established in 1843 for teaching by correspondence (Arat & Bakan, 2011). In Turkey, the practice of learning by correspondence for foreign language education started in 1953 with the brand Limasollu Naci, and this system, which was discussed theoretically in the 60s and 70s, became widespread with the opening of Anadolu University Open Education Faculty in the 80s (Arat & Bakan, 2011; Kırık, 2014).

This research was designed with the participation of Bursa Uludağ University Faculty of Agriculture Department of Landscape Architecture students to determine the efficiency of distance education and training in the landscape architecture profession, what the priority problems are in distance education, and which problems should be studied in what order to continue the learning processes in a qualified manner without interrupting the learning processes.

## MATERIALS AND METHODS

### *Material*

In this research, a higher education institution offering undergraduate education was discussed. The primary material of the research consists of scorecards of team members consisting of undergraduate students and scientific resources on the subject.

### *Method*

The NGT, one of the process improvement methods, was used in this research. The NGT, which provides equal rights to everyone in the group, was developed by Delbecq, Van de Ven, and Gustafson (1975) (Özkalp, 1991). Nominal Group Technique consists of 7 stages:

1. Disclosure of the Topic/Problem: The topic/problem expected to be solved and given to the participants is explained. The issue here is to determine the efficiency of distance education in landscape architecture, the priority problems, and in what order to work on which problems.

2. Idea Generation: This is the stage in which team members who will generate ideas are first formed. Team members are asked to write down their ideas about the topic/problem; all ideas are combined and listed. Team members are encouraged and responsible for expressing their personal opinions and ideas. Team members who would generate ideas were given preliminary information about the subject under the supervision of a moderator and were asked to take notes of their ideas, and the importance of generating as many ideas as possible was emphasized.

It was free to be influenced and inspired by the ideas of others; each idea conveyed was written down, similar ones were combined, and all ideas were listed without prejudice or omission. The team had no time limit during idea generation, which continued until it was finished. The study was conducted with the team members through a face-to-face meeting on 16.03.2022.

3. Interpretation and Explanation: This is the stage where all the ideas in the list are opened for discussion and evaluation, participants can combine or eliminate their ideas, each idea is listed by assigning a letter, and ideas ready for voting/scoring are obtained. If the number of ideas is too high, the ideas can be turned into a set.

In this study, many ideas were obtained, and similar ones were combined. Despite the combinations, the number of ideas was so high that reducing them to a manageable number was necessary through a systematic voting technique. For this reason, 6 sets were created from the ideas generated. Sets and number of ideas: 1- Regarding Distance Education (10 ideas), 2- Relating to Online Exams (10 ideas), 3- Relating to Economic Issues (9 ideas), 4- Relating to Socio-Cultural Issues (9 ideas), 5- Psychological/Spiritual Issues (10 ideas), 6- Related to Physical Issues (13 ideas). Thus, ideas ready for voting/scoring were obtained. Apart from these, the positives and negatives about the sets were also voted with 12 opinions to make a general evaluation.

4. Voting-Scoring: This stage is where team members vote/score by selecting all ideas from the list without discussing the ideas. Voting/scoring can be done in different ways here. Formerly, team members are asked to number the letters of the ideas in order of importance, using their priorities (5: Very important - High priority, 4: Important - Priority, 3: Moderately important - Moderate priority, 2: Less important - Low priority, 1: Unimportant -Much less priority). In the latter phase, they are asked to score the points equal to the total number of ideas by giving the highest score to the idea they find most crucial and to score the other ideas by using the lower scores of the highest score in order

of importance (if there are 7 ideas, the highest score should be 7). Here, each point must be used once.

In this study, team members were asked to score the 5 ideas they agreed with the most, in order of importance, out of 5 points. Team members scored the highest for the opinion prioritized for them and deducted one point for the next.

5. Adding the Points Given to Opinions: This is the stage where the points given to each idea are added up and written opposite the letter of the idea.

6. Writing the Opinions in Order of Importance: This stage determines the highest-priority and lowest-priority ideas. The team's chosen ideas determine the ideas with the highest value.

7. Evaluation: In this stage, the scoring results are interpreted and evaluated.

## RESEARCH FINDINGS

### *Findings about Team Members*

Team members consist of second-, third-, and fourth-year students studying at Bursa Uludag University, Faculty of Agriculture, Department of Landscape Architecture in the 2021-2022 academic year. Seven team members are in the fourth, nine are in the third, and fourteen are in the second. Information regarding the class, gender, and accommodation type of team members in Bursa is given in Table 1.

***Table 1.*** *Information regarding the class, gender, and accommodation type of team members in Bursa.*

| Class | Gender | | Type of Accommodation | | |
|---|---|---|---|---|---|
| | Woman | Man | F | D | SH |
| 4th class | 7 | - | 3 | 2 | 2 |
| 3rd class | 7 | 2 | 2 | 4 | 3 |
| 2nd class | 10 | 4 | 4 | 6 | 4 |
| Total | 24 | 6 | 9 | 12 | 9 |

FB: Living with family in Bursa, DB: Living in the dormitory in Bursa, SH: Living in a student house in Bursa

Accordingly, twenty-four of the members are women, and six are men. Nine students live with their families in Bursa, twelve live in a student dormitory, and nine stays in a student house. All team members have experienced distance education and training due to the pandemic. First-year students in the 2021-2022 Fall Semester were not selected as team members because they did not experience the distance education and training process.

### *Findings about Distance Education*

Teaching is a conscious, planned, programmed, timed, and purposeful activity under the teacher's supervision. One of the two most important values provided by technological developments in education is the computer, and the other is the internet. With the existence of these two values, changes have occurred in the field of education, and teaching activities have been carried out as distance education, independent of physical environments, during the COVID-19 epidemic on a global scale. In this study to evaluate landscape architecture students' distance education experiences, team members produced many ideas with positive and negative meanings. Similar opinions were combined,

reduced to ten ideas, simplified, lettered, and made ready for scoring for NGT (Table 2). The scoring of the ideas generated is also given in Table 3.

***Table 2.*** *Ideas produced by team members about distance education.*

| Letter | Ideas |
|---|---|
| A | Since all course materials are uploaded to the online system and lessons are recorded, we can listen to the topics again when we cannot attend the lesson or cannot understand the lesson. |
| B | We can take notes more easily and quickly during lessons. |
| C | We do not take attending online classes very seriously. |
| D | All applied courses are inefficient, we cannot learn as permanently and effectively as in face-to-face education. |
| E | Theoretical lessons are very productive. |
| F | We cannot attend the class due to power/internet outages and technical problems / deficiencies / impossibilities. |
| G | We do all our homework individually, not in unity, we cannot develop team spirit. |
| H | Since we do not see each other's work with our classmates, we are not influenced by each other in our designs / assignments and thus we can only focus on our feelings / thoughts / information. |
| I | Since we are thought to be idle at home, all our teachers give us a lot of homework and we cannot complete it. |
| J | It is difficult and unhealthy to communicate with our professors, it takes a long time to resolve an issue/problem. |

***Table 3.*** *Scores given by team members to distance education ideas.*

| Letter | 4th class points (7 students) | 3rd class points (9 students) | 2nd class points (14 students) | Total | Number of students giving points |
|---|---|---|---|---|---|
| A | 4,4,5,4,1,5,5 | 3,4,5,5,5,4 | 5,5,1,5,3,5,5,5,5,3,5,5, 5 | 111 | 26 |
| B | 3,2 | 1 | 1,4,4,4,2 | 21 | 8 |
| C | 1,1,2 | 4,1,1 | 2,2,1,2,1,4 | 22 | 12 |
| D | 3,3,5 | 1,5,2,5,2,1,2,2 | 5,4,3,2,3,3,5,1 | 57 | 19 |
| E | - | 3 | 2,4,4,3 | 16 | 5 |
| F | 2,5,2,3,3,3 | 3,4 | 1,1,1,2,1 | 31 | 13 |
| G | 3 | 2,5,1,2 | 2,3,1,3,1,3,4,3 | 33 | 13 |
| H | 1,2 | 1,3,2,3 | 4,2,4,3,4 | 29 | 11 |
| I | 5,2,5,4,4 | 5,3,3,4,4,3,1,5 | 5,2,1,4,1,3 | 64 | 19 |
| J | 1,4,2,4,1,1 | 4,2,4,2,3,5,4,1 | 3,1,3,2,5,2,4,4,2,2 | 66 | 24 |
| 5: High priority, 4: Priority, 3: Medium priority, 2: Low priority, 1: Much less priority | | | | 450 | 150 |

According to Table 3, the priority issues in distance education are listed according to the total scores they received:

•Idea A (111 Points): 16 people gave this idea 5 points, and 26 team members gave points.

•Idea J (66 Points): 2 people gave this idea 5 points, and 24 team members gave points.

•Idea I (64 Points): 5 people gave 5 points to this idea, and 19 team members gave points.

•Idea D (57 Points): 5 people gave 5 points to this idea, and 19 team members gave points.

•Idea G (33 Points): 1 person gave this idea 5 points, and 13 team members gave points.

### *Findings Regarding Remote Exams*

Exams, an evaluation process in the education and training system, are held to determine the level of knowledge and skills learned in lessons. In the distance education system, the examination process was also conducted remotely, with internet support. Landscape architecture department students expressed their experiences on this subject with the ideas in Table 4. Similar ideas reported by team members were combined, reduced to ten, simplified, lettered, and made ready for scoring (Table 4). The scoring of the ideas generated is given in Table 5.

***Table 4**. Ideas produced by team members about remote exams.*

| Letter | Ideas |
|---|---|
| A | Exam times are given short to prevent cheating, I do not cheat, and I cannot finish the exam in the given time. |
| B | In exams, both those who know the subject and those who do not get the same grades. |
| C | It is very difficult to prepare for the exam of a course where no video recording is uploaded. |
| D | We are experiencing situations such as internet outages, our exam is disrupted, we cannot upload our exam paper in the time given to us. |
| E | We can take the exam in a home environment (chair, table, appropriate ambient temperature, etc.) and under more comfortable conditions. |
| F | Online exams are not fair because everyone takes the exam under different physical conditions. |
| G | We are having difficulty adapting to the online exam. |
| H | Even though we do not cheat in face-to-face training exams, we are tempted to cheat in online exams. |
| I | We do not take preparing for online exams very seriously. |
| J | It is great that we can take the exams remotely even though we are in a different city / country than the city we studied in (Bursa) during the pandemic. |

***Table 5.** Scores given by team members to remote exam ideas.*

| Letter | 4th class points (7 students) | 3rd class points (9 students) | 2nd class points (14 students) | Total | Number of students giving points |
|---|---|---|---|---|---|
| A | 5,1,5,5,4 | 5,2,5,5,5,4,5 | 5,5,5,4,2,2,5,3,3 | 85 | 21 |
| B | 5,4,5,4,3,5 | 4,4,5,3,5,2,3 | 4,5,4,2,2,4 | 73 | 19 |
| C | 1,2,3 | 4,4 | 3,3,5,4,1,5,2,5,2 | 44 | 14 |
| D | 4,3,2,2,3,4 | 3,3,2,3,4 | 4,2,3,4,2,3 | 51 | 17 |
| E | 3,2 | 4,2,3 | 1,2,3,5,4,3,1,4,4,3,5 | 49 | 16 |
| F | 4,4,1 | 3,1,1,2,3,2 | 1,1,3,4,1 | 31 | 14 |
| G | 3 | - | 3,1 | 7 | 3 |
| H | 5,2 | 5,1 | 2,1,1,5 | 22 | 8 |
| I | 1,1,2 | 1,2,4,1,1 | 1,1,3,3,1 | 22 | 13 |
| J | 2,3,1,1 | 2,1,4,3,1,1,5,2 | 2,1,4,3,5,2,4,2,5,5,1,2,4 | 66 | 25 |
| 5: High priority, 4: Priority, 3: Medium priority, 2: Low priority, 1: Much less priority | | | | 450 | 150 |

According to Table 5, the priority topics in the distance exam are listed according to the total scores they received.

- Idea A (85 Points): 12 people gave this idea 5 points, and 21 team members gave points.
- Idea B (73 Points): 6 people gave this idea 5 points, and 19 team members gave points.
- Idea J (66 Points): 4 people gave this idea 5 points, and 25 team members gave points.
- Idea D (51 Points): Although no one gave points to this idea, points were given by a total of 17 team members.
- Idea E (49 Points): 2 people gave this idea 5 points, and 16 team members gave points.

### *Findings Regarding Economic Issues*

Costs for education can be considered as (1) personal cost, (2) public cost, and (3) total cost, which is the sum of both (Ekinci, 2009). Formal education and distance education both have different personal cost dimensions. These are costly computer and internet access lines, software, and maintenance costs. In this study, with student participation, students only considered personal costs (fees paid by the family, transportation expenses, accommodation and nutrition expenses, books, stationery, clothes, etc.).

Landscape architecture department students expressed their experiences on this subject with the ideas in Table 6. Similar ideas reported by team members were combined, reduced to ten, simplified, lettered, and made ready for scoring (Table 6). The scoring of the ideas generated is given in Table 7.

***Table 6.*** *Ideas about economic issues in distance education.*

| Letter | Ideas |
|---|---|
| A | We can mostly meet our transportation, accommodation, food and beverage and similar needs at home. We do not have any expenses other than teaching needs and our money stays in our pocket. |
| B | Since it is distance education, we deliver our projects/homework and similar works digitally using computer programs, and this is more economical in terms of materials (various papers, pencils, rulers, printouts, etc.). |
| C | Distance education creates a new expense for those needing computer/telephone/internet access. |
| D | When it is difficult for us to obtain the equipment to be used within the course scope because we try to stay at home, our teachers understand this situation and help us use the alternative equipment we have. This is also economical. |
| E | We have the opportunity to work/earn money simultaneously with a university education. |
| F | Since the transition to face-to-face education is still being determined, we are paying rent for the student house we do not stay in. |
| G | Our siblings must take online lessons simultaneously, and we have only one computer. We needed to buy new computers. |
| H | In times and places where there is no wireless internet network, we attend classes using phone cellular data and exceed our quota. We need to increase the internet quota by a higher amount, and our costs are also increasing. |
| I | Since we were staying with our families, we incurred extra expenses for them to make the physical conditions suitable for us. |

***Table 7.*** *Scores given by team members to their ideas about the economic dimension of distance education.*

| Letter | 4th class points (7 students) | 3rd class points (9 students) | 2nd class points (14 students) | Total | Number of students giving points |
|---|---|---|---|---|---|
| A | 4,2,5,4,5,4 | 4,5,5,5,4,5,4,3 | 2,4,5,3,3,5,5,5,5,5,5,5,5, 5 | 121 | 28 |
| B | 5,4,5,4,4,5 | 5,3,4,4,2,4,5 | 1,3,5,5,3,4,4,4,3,4 | 90 | 23 |
| C | 3,2 | 4,3,1,2 | 3,4,2,4,4,1 | 33 | 12 |
| D | 3 | 2,2,3,2,1,4 | 5,1,4,4,4,2,2,3,4,3 | 49 | 17 |
| E | 1,1,3,3,2 | 1,2,1,1,2 | 2,4,2,3,3,3,2,2,2 | 40 | 19 |
| F | 3,5 | 5,5,3,5 | 4,1,1,1,3 | 36 | 11 |
| G | 2,2,1 | - | 2,1,3 | 11 | 6 |
| H | 2,4,2,1,3 | 3,1,1,4 | 5,3,2,2,2 | 35 | 14 |
| I | 5,1,1,1,3 | 1,2,3,3,2,3,1 | 2,1,1,1,1,1,1,1 | 35 | 20 |
| J | 4,2,5,4,5,4 | 4,5,5,5,4,5,4,3 | 2,4,5,3,3,5,5,5,5,5,5,5,5, 5 | 121 | 28 |
| 5: High priority, 4: Priority, 3: Medium priority, 2: Low priority, 1: Much less priority | | | | 450 | 150 |

According to Table 7, priorities regarding economic issues are listed below.

- Idea A (121 Points): 16 people gave 5 points to this idea, and 28 team members gave points.
- Idea B (90 Points): 7 people gave 5 points to this idea, and 23 team members gave points.
- Idea D (49 Points): 1 person gave 5 points to this idea, and 17 team members gave points.
- Idea E (40 Points): Although no one gave full points to this idea, points were given by a total of 19 team members.
- Idea H (35 Points): 1 person gave 5 points to this idea, and 14 team members gave points.
- Idea I (35 Points): 1 person gave 5 points to this idea, and 20 team members gave points.

Here, H and I ideas received equal points from the team members.

### *Findings Regarding Sociocultural Issues*

Formal education has advantages, especially regarding social and cultural interaction, compared to the distance education system. In this system, students are affected by the environment they live in and affect the environment in which they live. In addition, campus experience in formal education is one of the most critical elements in students' university lives to develop young individuals, each of whom will have a unique personality. According to Telli Yamamoto (2006), the locations of the campuses and the facilities within them are among the factors that make it attractive for students, faculty members, and employees to take part in that institution.

Landscape architecture department students expressed the sociocultural dimension of distance education with the ideas in Table 8. The scoring of the ideas generated is given in Table 9.

***Table 8.*** *Ideas about sociocultural issues in distance education.*

| Letter | Ideas |
|---|---|
| A | We learn to carry out events like meetings, lectures, and juries online and gain experience. |
| B | We can spare more time for ourselves and our family at home, and we have increased the number of activities we can do at home (reading books, watching movies, studying a foreign language, etc.). |
| C | In distance education, we have yet to have the chance to visit the city we study in, its districts, and surrounding cities and get to know its culture. |
| D | We do not see people we do not like, and conflicts do not arise because we cannot meet our friends. |
| E | In face-to-face education and training, we were able to participate in more activities and join communities that could improve ourselves. Distance education is a cold, insincere, antisocial way of teaching. |
| F | It provides the opportunity to study at a university at any age and the advantage of studying at more than one university. |
| G | Since we cannot meet people face to face, we cannot express ourselves well enough and develop culturally. |
| H | We cannot ensure our sociocultural development because we cannot coexist with people from different cultures/cities/countries. |
| I | Online education is destroying our habit of going to school. |

***Table 9.*** *Scores given by team members to their ideas about the sociocultural dimension of distance education*

| Letter | 4th class points (7 students) | 3rd class points (9 students) | 2nd class points (14 students) | Total | Number of students giving points |
|---|---|---|---|---|---|
| A | 1,1,5 | 1,4,3,2,3 | 3,4,4,1,1,5 | 38 | 14 |
| B | 4,2,3,4 | 5,5,5,3,4,5 | 2,4,4,3,3,5,5,5,1,5,5,4 | 86 | 22 |
| C | 2 | 2,2,2,4 | 3,5,1 | 21 | 8 |
| D | 4,1,3 | 4,4,5,5 | 5,1,5,4,3,2,4,1 | 51 | 15 |
| E | 3,2,5,3,2 | 3,3,4,3,4,2 | 4,5,5,3,1,4,5 | 61 | 18 |
| F | 3,4 | 1,1,1 | 2,3,2,4,2,3,3,2,2,2,3,3 | 41 | 17 |
| G | 2,5,3,4,5 | 3,2,2,1,1 | 1,5,1,4,3 | 42 | 15 |
| H | 1,4,2,1,5,1,1 | 4,3,4,3,1 | 2,2,4,2,2,1,3,4 | 50 | 20 |
| I | 5,3,5,4,2 | 5,1,1,2,2,5,5 | 1,1,1,5,1,3,2,4,2 | 60 | 21 |
| J | 1,1,5 | 1,4,3,2,3 | 3,4,4,1,1,5 | 38 | 14 |
| 5: High priority, 4: Priority, 3: Medium priority, 2: Low priority, 1: Much less priority | | | | 450 | 150 |

According to Table 9, priorities regarding sociocultural issues are listed below.

- Idea B (86 Points): 9 people gave 5 points to this idea, and 22 team members gave points.
- Idea E (61 Points): 4 people gave this idea 5 points, and 18 team members gave points.
- Idea I (60 Points): 6 people gave 5 points to this idea, and 21 team members gave points.
- Idea D (51 Points): 4 people gave this idea 5 points, and 15 team members gave points.
- Idea H (50 Points): 1 person gave 5 points to this idea, and 20 team members gave points.

### *Findings Regarding Psychological/Spiritual Issues*

In distance education, a psychological distance may occur between teachers and learners. The ideas that reveal the evaluations of the team members consisting of landscape architecture students on this subject are given in Table 10. The scoring of the ideas generated is given in Table 11.

***Table 10.*** *Ideas regarding psychological/spiritual issues in distance education.*

| Letter | Ideas |
|---|---|
| A | We become psychologically worn out and overwhelmed because we stay glued to the computer while listening to lectures and doing homework. |
| B | A lot of homework is given. We are experiencing the stress of being unable to complete our homework due to intense homework. |
| C | We stay away from our friends. We cannot express our troubles and problems outside but live them inside. We become introverted and lonely. |
| D | We need to maintain our sense of social responsibility. |
| E | The feeling of selfishness is increasing. |
| F | Being at home constantly becomes annoying, and our motivation to study decreases. |
| G | We stay away from social activities. We cannot be discharged physically, and this disrupts our psychology. |
| H | Since we cannot see our facial expressions in communication, we cannot communicate healthily, and not being understood creates stress. |
| I | Distance education does not provide students with sufficient equipment in terms of psychological and mental health; it is an insincere system, has no sense of trust, and does not develop team spirit. |
| J | We wear headphones to adapt to the lesson entirely. This causes biological/psychological health problems. |

***Table 11.*** *Scores given by team members to their ideas about the psychological/spiritual dimension of distance education*

| Letter | 4th class points (7 students) | 3rd class points (9 students) | 2nd class points (14 students) | Total | Number of students giving points |
|---|---|---|---|---|---|
| A | 4,2,4,5,4,5 | 5,4,5,3,5,5 | 3,2,5,1,1,1,3 | 67 | 19 |
| B | 5,3,4,5,4 | 4,3,5,5,3,1 | 1,4,4,2,5,5,1,4,5,5 | 78 | 21 |
| C | 5,3,2,3 | 5,4,2,1 | 5,2,3,5,2,4,2 | 48 | 15 |
| D | 1,1,4 | 3,2,5 | 3,1,1,2,1,1,2,3 | 30 | 14 |
| E | - | 3 | 1 | 4 | 2 |
| F | 3,4,1,2,3,2 | 1,3,3,4,2,4,4 | 3,4,5,5,2,3,4 | 62 | 20 |
| G | 2,3,1,1,2 | 1,4,2,1,5,4,3,2 | 4,5,4,3,4,4,3,4,2 | 64 | 22 |
| H | 2,3 | - | 2,4,3,5,3,3,3,4,5,1,3 | 41 | 13 |
| I | 5,5,1 | 2,4,3 | 5,1,2,2,4,5,1 | 40 | 13 |
| J | 1 | 2,2,1,1,1,2,1 | 2,2,1 | 16 | 11 |
| 5: High priority, 4: Priority, 3: Medium priority, 2: Low priority, 1: Much less priority | | | | 450 | 150 |

According to Table 11, the priority issues regarding Psychological / Spiritual Issues are listed according to the total scores they received.

- Idea B (78 Points): 8 people gave this idea 5 points, and 21 team members gave points.

- Idea A (67 Points): 7 people gave this idea 5 points, and 19 team members gave points.
- Idea G (64 Points): 2 people gave this idea 5 points, and 22 team members gave points.
- Idea F (62 Points): 2 people gave this idea 5 points, and 20 team members gave points.
- Idea C (48 Points): 4 people gave this idea 5 points, and 15 team members gave points.

### *Findings Regarding Physical Issues in Distance Education*

Learning, a complex phenomenon, is affected by various factors (Metin & Özcan, 2015). One of these issues is physical issues. For learning to occur, the person's physiological state must be healthy (Kılıç, 2003), and the environment in which learning takes place must be spacious, sufficiently bright, not too hot or cold, and not crowded (Metin & Özcan, 2015). There must be no background noise (Laing, 1828).

The team members of this study expressed their ideas with the simplified and capitalized sentences given in Table 12. The scoring of the ideas generated is given in Table 13.

***Table 12.*** *Ideas about physical issues in distance education.*

| Letter | Ideas |
|---|---|
| A | We feel comfortable and safe because we attend classes from home. |
| B | It is unnecessary to go to school or another city/country to take classes. Geographical boundaries have disappeared. We can attend our classes wherever we have internet and a device. This is a huge advantage. |
| C | The tools (computers, rulers, cardboard, etc.) we had to take to school that caused us many difficulties in public transportation were so heavy that we did not have to carry them. |
| D | We do not go to a different classroom or lecture hall for each lesson and do not tire to reach the classroom. We do not wake up early to attend classes in the morning, and we do not get cold or sweat because we can attend classes without leaving home on freezing days in winter or very hot days in summer. We can attend class even when we are sick. |
| E | We can use the time we spend on the road for our homework. This gives us time to rest. |
| F | We gain weight and become bulky due to being inactive in front of the computer for a long time. Our ergonomics are deteriorating, and we are experiencing stress. This causes us to experience body pain (health problems such as waist, neck, back, head, eye, stomach, joint pain/numbness, eye fatigue, dry eye). |
| G | In distance education, our classmates who do not listen to the lesson / are not interested in the lesson/talk during the lesson cannot disrupt the classroom order. |
| H | We are exposed to radiation due to the constant use of computers and electronic devices. |
| I | Sitting in front of the computer for a long time causes us to deviate from the lesson and become distracted. |
| J | Being employed or being a disabled individual does not constitute an obstacle to online education and training. It provides the opportunity to benefit from education and training opportunities without disruption. |
| K | Physical and technical problems (power outage, internet outage, not having good internet) negatively affect our participation in the exam. |
| L | It provides easy access to various teaching materials, such as video and audio files. |

| | |
|---|---|
| M | Although online teaching supports active learning, it pacifies students and faculty members and has no physical benefits. |

***Table 11****. Scores given by team members to their ideas about the physical dimension of distance education.*

| Letter | 4th class points (7 students) | 3rd class points (9 students) | 2nd class points (14 students) | Total | Number of students giving points |
|---|---|---|---|---|---|
| A | 5 | 5,4,1 | 1,3,5,4,5,4 | 37 | 10 |
| B | 4,5,4 | 2,5,3 | 4,2,5,4,1,5,3 | 47 | 13 |
| C | 3,5,1,4,3,3 | 4,4,4,2,4 | 1,3,4,5,4,4,3,3,2,4,3,2 | 75 | 23 |
| D | 3,4,2 | 4,2,5 | 2,1,2,3,5,4,3,1,5 | 46 | 15 |
| E | 2,1,2,2 | 2,5,3,3,2,2 | 5,5,4,1,1,5,1,2,3 | 51 | 19 |
| F | 4,4,5,5 | 5,1,3,4,5,1 | 4,3,3,5,5,4 | 61 | 16 |
| G | - | 1,1 | 2,3,1 | 8 | 5 |
| H | 3 | 3,1,4,2 | 2,1 | 16 | 7 |
| I | 1,5,1,4,1 | 2,3 | 5,4,2 | 28 | 10 |
| J | - | 2 | 1 | 3 | 2 |
| 5: High priority, 4: Priority, 3: Medium priority, 2: Low priority, 1: Much less priority | | | | 450 | 150 |

According to Table 13, the top five priority ideas regarding physical issues are listed below:

- Idea C (75 Points): 2 people gave this idea 5 points, and 23 team members gave points.
- Idea F (61 Points): 6 people gave this idea 5 points, and 16 team members gave points.
- Idea E (51 Points): 4 people gave this idea 5 points, and 19 team members gave points.
- Idea B (47 Points): 4 people gave this idea 5 points, and 13 team members gave points.
- Idea D (46 Points): 3 people gave 5 points to this idea, and 15 team members gave points.

## CONCLUSION

According to United Nations data, during the COVID-19 epidemic, the world's learning mass of 770 million people was affected by the closure of schools and universities (Telli Yamamoto & Altun, 2020). After the COVID-19 outbreak, the higher education system in Turkey had to switch to an e-learning trial to ensure the sustainability of education and training. All primary, secondary, undergraduate, and graduate students stayed at home during this period and continued their education through distance education systems. After the health sector, education is one of the most affected by this situation (Telli Yamamoto & Altun, 2020).

Not only in the event of a pandemic, but also natural disasters such as erosions, tsunamis, volcanoes, tornadoes, floods, fires, and earthquakes may necessitate a similar process. So much so that, immediately after the end of the pandemic conditions, distance education began to be implemented again in higher education institutions after the earthquake disaster that occurred in Turkey on February 6, 2023, and affected 11 provinces.

There still need to be research gaps regarding evaluating the effectiveness of distance education. For education to continue without disruption in similar situations that may occur in the future, the current situation needs to be analyzed and understood very well.

The experiences of the distance education process differ regarding the parties (learning and teaching sides). In this study, the situation of distance education from the learner's perspective was tried to be analyzed. Nominal Group Technique (NGT) was used in the study. NGT is a technique in which team members generate ideas about the determined problem/topic and score the generated ideas according to their priorities. This way, which subject will be studied and in what order can be determined.

With the assumption that the education and training process will be carried out remotely in the future, all dynamics of distance education, such as examination application, economic dimension, sociocultural dimension, physical dimension, and psychological/spiritual dimension, should be questioned to plan the future status of distance education and its success in education. With this in mind, in this research, sets were created by collecting the team members' ideas into these six categories. As a result of the research, the ideas created regarding the positive and negative aspects of each set were arranged according to the Nominal Group Technique and presented for scoring (Table 14). The scoring of general ideas is given in Table 15.

***Table 14.*** *General ideas*

| Letter | Ideas |
|---|---|
| A | There are many positive aspects of distance education in landscape architecture. |
| B | There are many negative aspects of distance education in landscape architecture. |
| C | There are many positive aspects of remote exam applications in landscape architecture. |
| D | There are many negative aspects of remote exam practice in landscape architecture. |
| E | There are many economic positive aspects of distance education in landscape architecture. |
| F | There are many economic negative aspects of distance education in landscape architecture. |
| G | Distance education in landscape architecture has many positive socio-cultural aspects. |
| H | There are many socio-cultural negative aspects of distance education in landscape architecture. |
| I | There are many physical positive aspects of distance education in landscape architecture. |
| J | There are many physical negative aspects of distance education in landscape architecture. |
| K | Distance education has many psychological/spiritual positive aspects in landscape architecture. |
| L | Distance education has many psychological/spiritual negative aspects in landscape architecture. |

***Table 15.*** *Scores that team members gave to general ideas.*

| Letter | $4^{th}$ class points (7 students) | $3^{rd}$ class points (9 students) | $2^{nd}$ class points (14 students) | Total | Number of students giving points |
|---|---|---|---|---|---|
| A | 5 | 2,4,4,1 | 2, 5,5 | 28 | 8 |
| B | 3,5,1,5 | 5,3,5,4,1 | 4,4,1,2,2,4,1,5,2 | 57 | 18 |
| C | 2,1,3 | 3,4,5,3 | 1,1,1,3,5,1,4,3,4,4 | 48 | 17 |
| D | 2,3 | 3,5,4 | 5,2,1 | 25 | 8 |

| | | | | | |
|---|---|---|---|---|---|
| E | 5,1,2,4,4,4 | 4,2,1,5,4,4 | 3,4,2,3,3,3,1 | 59 | 19 |
| F | - | 5 | - | 5 | 1 |
| G | - | 1,2 | 2 | 5 | 3 |
| H | 3,4,5,1,5,1,2 | 1,2,2,2,3,2,2 | 5,2,4,2,3,4,5,1,3,3,4 | 71 | 25 |
| I | - | 1,3 | 3,4,5,1,5,4,3 | 29 | 9 |
| J | 1,2,3,4,2 | 1,5,3 | 2,3,1,3,2,1 | 33 | 14 |
| 5: High priority, 4: Priority, 3: Medium priority, 2: Low priority, 1: Much less priority | | | | 450 | 150 |

According to Table 15, the priority issue is that distance education in landscape architecture has many negative socio-cultural aspects (H Opinion - 71 Points). The education and training process is the process of individuals learning the culture they live in and adapting to this culture. During university education and training, every individual who moves due to school enters this cultural interaction and socializes simultaneously. According to the experience of landscape architecture students, the negative aspects of distance education in terms of socio-cultural aspects are that they do not have the chance to visit the city/districts of the province they study in and the surrounding provinces and districts, get to know the culture, do not have the chance to participate in student communities and participate in various social activities, and face-to-face communication has disappeared. It has been determined that they cannot express themselves well and remain asocial, cannot ensure their socio-cultural development because they cannot coexist with people from different cultures/cities/countries, and their school-going habits are diminished.

The second priority issue is that distance education in landscape architecture has many psychological/spiritual negative aspects (L Opinion-67 Points). The main tools of distance education are computers/tablets / mobile phones and the internet. There are various disadvantages to using these tools for a long time. Team members produced entirely negative opinions on this issue. These include feeling overwhelmed and bored by being in front of the computer for a long time, experiencing the stress of not being able to complete homework, becoming introverted and lonely due to not being able to share one's troubles and problems with friends, losing the sense of social responsibility, becoming selfish, losing motivation, not being able to discharge physically and experiencing psychological disorders due to this, and being unable to discharge one's health. Stress is caused by an inability to communicate and be understood, loss of sincerity and trust, and experiencing biological and psychological health problems due to using headphones to adapt to the lesson entirely.

The third priority issue is that distance education in landscape architecture has many positive economic aspects (E Opinion - 59 Points). Team members produced ideas in two different contexts about the economic aspect of distance education. However, they rated that distance education has much more favorable economic aspects. The ideas that support this are transportation, accommodation, food and beverage, etc. In cases where their expenses are low because they meet their needs from home, their teaching expenses (various papers, pencils, rulers, printouts, etc.) are eliminated due to the digital delivery of their design projects and assignments without printing. They cannot obtain tools and equipment because they cannot go out due to the pandemic. The teachers are tolerant of using available alternative materials, do not spend money, and have the opportunity to work and earn money while continuing their education. Despite these ideas, opinions have also been put forward stating that distance education is economically unfavorable. These are: Incurring a new expense for those who do not have access to a computer/telephone/internet since the transition to face-to-face education is not clear,

they have to pay rent for the student houses they do not stay in, families with multiple siblings participating in distance education have to buy new computers, insufficient internet quotas and quotas With the increase in costs due to upgrades, families incur extra expenses to make their homes suitable for education.

The fourth priority issue is that there are many negative aspects of distance education in landscape architecture (Idea B - 57 Points). Success in quality distance education is a subject that requires expertise in many aspects. The team members of this study stated that the negative aspects of distance education are much more significant. Ideas on this subject include not taking participation in online courses very seriously, practical courses being inefficient, not being able to learn permanently and effectively, not being able to attend classes when there are electricity/internet outages, technical problems / deficiencies / impossibilities, not being able to develop team spirit, being given too much homework and not being able to complete it, It was stated that the failure to establish healthy communication with the faculty members regarding the courses or the long process of establishing healthy communication.

The fifth priority issue is the many positive aspects of remote exam practice in landscape architecture (Idea C - 48 Points). Studying students' attitudes, opinions, and interests is one of the inevitable issues in online exams. Although team members produced more negative opinions on this issue, they rated the online exam application as having more positive aspects. The reason is that they can take the exam under more comfortable conditions at home (chair, table, appropriate ambient temperature, etc.) and that it is comfortable to take the exam even if they are in a different city or country than the university they study at.

The sixth priority is that distance education in landscape architecture has many negative physical aspects (J Opinion-33 Points). Although it is crucial to create physically suitable environments for the efficiency of distance education, each student can participate in distance education with different physical conditions. The negativities stated by the team members, consisting of students of the landscape architecture department, in this regard, were being inactive in front of the computer for a long time, gaining weight due to inactivity, becoming bulky, and various health problems (waist, neck, back, head, eyes, stomach) due to ergonomic problems due to the inappropriateness of the tables and chairs. , joint pain/numbness, stress, eye fatigue, dry eye, distraction), exposure to radiation due to long-term use of electronic devices, technical problems (such as power outage, internet outage, not having good internet) expressed as inability to participate.

Although the internet-based education system is shown as an alternative to the face-to-face education system, there is a need for regulations in the design and implementation phases of internet-based education. In this study, landscape architecture students' experiences determined the priority problems in distance education and which problems should be studied in what order. Six sets were created based on the ideas generated by the team members, and their ranking was determined according to their priorities. Accordingly, the negativity of sociocultural issues is the priority, and the positivity is the eleventh priority; The negativity of psychological/spiritual issues is the second priority, the positivity is the tenth priority; The positivity of economic issues is the third priority, the negativity in the twelfth priority; The negativity of teaching/learning issues is in the fourth priority, the positivity is in the eighth priority; It was determined that the positivity of the exam subjects was in the fifth priority, the negativity in the ninth priority, the negativity of the physical subjects in the sixth priority and the positivity in the seventh

priority. The ideas produced, and their priority order on the topics discussed as the dynamics of distance education are also given in the findings section. Decisive steps need to be taken in the design and implementation phases of the distance education system to eliminate the identified negativities, improve the experienced problems, and facilitate the learning of all students.

## REFERENCES


[1] Arat, T. ve Bakan, Ö. (2011). Uzaktan Eğitim ve Uygulamaları. *Selçuk Üniversitesi Sosyal Bilimler Meslek Yüksek Okulu Dergisi*, 14 (1-2): 363 – 374.

[2] Beveridge, C. E., (2023). *Frederick Law Olmsted: His Essential Theory.* Olmsted Network. https://olmsted.org/frederick-law-olmsted-his-essential-theory/

[3] Canay, S. (2017). Süreç İyileştirme Yöntemleri. https://sametcanay.blogspot.com/2017/03/surec-iyilestirme-yontemleri-nominal.html

[4] Delbecq, A.L., Van de Ven, A.H., Gustafson, D.H., (1975). *Group Techniques for Program Planning; a guide to nominal group and Delphi processes*. Glenview IL, Scott Foresman and Company. Management applications series. 174p. ISBN 0-673-07591-5.

[5] Ekinci, C. E., (2009). Türkiye'de Yükseköğretimde Öğrenci Harcama ve Maliyetleri. *Eğitim ve Bilim*, 34 (154): 119 – 133.

[6] Jorgensen, K., Stiles, R., Mertens, E., Karadeniz, N., (2020). Teaching landscape architecture: a discipline comes of age. *Landscape Research*, 47 (2): 167 – 178.

[7] Kılıç, M., (2003). Öğrenmenin Doğası. Binnur Yeşilyaprak (Ed.), *Gelişim ve Öğrenme Psikolojisi* (4. Baskı) içinde (ss. 142-165). Ankara: Pegem Akademi Yayıncılık.

[8] Kırık, A. M., (2014). Uzaktan Eğitimin Tarihsel Gelişimi ve Türkiye'deki durumu. *Marmara İletişim Dergisi*, 21: 73 – 94.

[9] Kocaman, S. (2017). Nominal Grup Tekniği Nedir? http://sedakocaman.blogspot.com/2017/11/nominal-grup-teknigi-nedir-nominal-grup.html

[10] Laing, G. B., (1828). On The Landscape Architecture of the Great Painters of Italy. https://archive.org/details/onlandscapearchi00meas/page/n5/mode/2up

[11] Lau, J., Yang, B., Dasgupta, R., (2020). Will the coronavirus make online education go viral. *Times Higher Education.* https://www.timeshighereducation.com/features/will-coronavirus-make-online-education-go-viral

[12] Loudon, J. S., (1840) . The landscape gardening and landscape architecture of the late Humphry Repton. https://archive.org/details/landscapegardeni00rept/page/n11/mode/2up

[13] Meason, G. L.,, (1828). *On the Landscape Architecture of the Great Painters of Italy*. Printed at C. Hullmandel's Lithographic Establishment, 51, Gt. Marlborough Street, p, 147.

[14] Metin, M., Özcan, A., (2015). Eğitimle İlgili Temel Kavramlar. Mukadder Boydak Özan, Yuncay Yavuz Özdemir (Eds.) *Eğitim Bilimine Giriş* içinde (ss.1-29). Asos Yayınları.

[15] Ortaçeşme, V., Kınıklı, P., Yıldırım, E., (2014, Nisan 10 – 12). *Türkiye'deki Peyzaj Mimarlığı Bölümleri ve Eğitim-Öğretime İlişkin Mevcut Durum*. [Sözlü sunum]. 1. Peyzaj Mimarlığı Eğitim Öğretim Çalıştayı Bildiriler Kitabı: Antalya.

[16] Özkalp, E., (1991). Örgütlerde Grupların Karar Verme Teknikleri. *Anadolu Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 9 (1): 311 – 320.

[17] Page, J., Hinshaw, D., McKay, B. (2021). *In Hunt for Covid-19 Origin, Patient Zero Points to Second Wuhan Market.* The Wall Street Journal. https://www.wsj.com/articles/in-hunt-for-covid-19-origin-patient-zero-points-to-second-wuhan-market-11614335404.

[18] Telli Yamamoto, G., (2006). University evaluation-selection: a Turkish case. *International Journal of Educational Management*, 20 (7): 559 – 569.

[19] Telli Yamamoto, G., Altun, D., (2020). Coronavirüs ve Çevrimiçi (Online) Eğitimin Önlenemeyen Yükselişi. *Journal of University Research*, 3 (1): 25 – 34..

[20] WHO (2020). WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020.
[21] YÖK (2020). Basın açıklaması. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://covid19.yok.gov.tr/Documents/alinan-kararlar/03-uzaktan-egitime-iliskin-alinan-karar.pdf.
[22] YÖK (2020). Koronavirüs (Covid-19) Bilgilendirme Notu – 1. https://www.yok.gov.tr/Sayfalar/Haberler/2020/coronavirus_bilgilendirme_1.aspx.