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REFLECTION OF ACADEMICIANS IN USING BLENDED LEARNING

Erhan Şengel[1i],
Niyazi Aktaş[2]
[1]Uludağ University,
School of Education,
Department of Computer Education
and Instructional Technology,
Turkey
orcid.org/0000-0003-0927-2814
[2]Expert Teacher,
Güzelyalı Imam Hatip Secondary School,
Pendik, Istanbul, Turkey
orcid.org/0000-0002-3080-5091

Abstract:
Due to the current Covid-19 pandemic, the physical conditions of learning environments and the measures taken within the scope of combating the epidemic have made blended teaching practices, including distance education, much more important. With this study, it is aimed to shed light on the opinions and experiences of the academicians, who are thought to have a higher assumption of experiencing the blended teaching method, regarding the use of the blended method at the higher education level during the Covid-19 pandemic. In this study, a mixed research methodology was adopted in which quantitative and qualitative data were used together by using a convenient sampling method. In this context, the data collection tool was shared with the academicians via the LinkedIn network. 58 academicians from 16 universities participated in the research. Descriptive statistics (frequency, percentage and mean) were used in the analysis of Likert-type quantitative questions, and content analysis was used in the analysis of qualitative data. According to the findings of the study, academics who stated that they could possibly teach with the blended method in the future stated that their educational experience in blended courses was better than in face-to-face courses without any web component. On the other hand, academics mostly stated that the amount of interaction in blended courses is lower than in face-to-face courses. Together with these findings, it is understood that academicians perceive the quality of interaction in blended courses as similar to the quality of interaction in face-to-face courses. According to academics, the most positive aspects of using the blended method in lessons are the use of *technological opportunities, flexibility of space, flexibility of time and equality of opportunity.* The most

[i] Correspondence: email erhansengel@uludag.edu.tr

negative aspects of using the blended method are attendance problems, *lack of communication, infrastructure problems and technological inadequacies and workload*. It is understood that the materials, tools or technologies that academicians use most in blended courses are *need-oriented trainings (web 2.0, web, innovation, technique, etc.), video and audio peripherals, online content, virtual reality technology and a powerful computer.* Although some of the academicians stated that their experiences in blended courses affected their face-to-face courses, almost half of them stated that their blended course experiences did not affect their face-to-face courses. These results may guide both present and future policies and procedures for blended learning in general.

Keywords: Covid-19, blended learning, higher education, scholar perception, factors and challenges

1. Introduction

The World Health Organization (WHO) declared a pandemic on 11 March 2020 due to Covid-19, which emerged in November 2019 and the first case was detected in Turkey in March 2020 (WHO, 2020). Activities in schools and universities, like many business areas that may experience difficulties in maintaining social distance within the framework of the pandemic, had been shut down primarily.

The Covid-19 pandemic has completely changed the traditional school life of students around the world and the face-to-face education process has been suspended. It has been observed that different alternative education models are preferred around the world in order to ensure the continuation of the education process without changing the quality of education. One of these alternative ways is to switch to distance education applications. Methods such as synchronous distance education method, asynchronous distance education method and Massive Open Online Course (MOOC) are applied to students who take courses with distance education (Bae, Prasad, Alsadoon, & Bajaj, 2015). In synchronous applications, students and instructors can interact instantly via live forums or applications such as Google Meet, Zoom, Microsoft Teams. In asynchronous applications, videos of pre-recorded lessons can be accessed, discussion groups can be attended independently of time or access to lecture notes can be provided (Siah, Huang, Poon, & Koh, 2022). Such interactions are more preferred by students (Baskakova, Belash, & Shaposhnikov, 2021).

One of the institutions that kept up with and adapted to this change in a very short time was higher education institutions. In the Republic of Turkey, "Digital Transformation Commission in Higher Education" was established within the body of the Council of Higher Education (CHE) and a road map was determined under the leadership of the commission. In this context, it has been decided that universities with distance education centers (123) will start distance education activities and that universities without infrastructure will carry out distance education activities in cooperation with universities with infrastructure (YÖK, 2020).

2. Literature Review

Many studies show that distance education has disadvantages as well as benefits. As it was stated in the 2009 statement of the United States Department of Education that distance education provides as many or even more advantages as face-to-face education in achieving student achievements. (U.S. Department of Education, 2009). Among the factors that provide this advantage are the dialogues between instructor-student and student-student, course design, but external student motivation and student self-regulation do not have a significant relationship with user satisfaction and learning outcomes (Eom & Ashill, 2016). Despite the advantages of distance education, especially asynchronous applications being independent of time and space, it is stated that there are disadvantages such as insufficient technological infrastructure and lack of knowledge in this field in terms of students and even instructors (Sindiani, ve diğerleri, 2020). Lack of direct communication between students and instructors is also listed among other disadvantages (Otter, ve diğerleri, 2013). Lack of communication reduces students' participation and motivation in classes (Sindiani, ve diğerleri, 2020). In the face of these limitations, because of the advantages of face-to-face education and the advantages of distance education, blended education will be one of the most preferred approaches in the coming years (Poon, 2014).

Blended teaching does not simply mean transferring teaching materials to the online platform. It is necessary to redesign the process of presenting the course content and to pay attention to pedagogical factors in the use of technology in this transfer process. Since it is a constructivist approach, it requires the trainer to move from the role of instructor to the role of guide, and educators who want to manage this process should plan how to integrate new technologies into their teaching processes effectively. This planning process, as well as the execution process, will take more time than face-to-face training. This difference may vary depending on the variety of tools for web 2.0 and social networks to be used. At the same time, this diversity of use and the desire of the trainers to use this diversity, the level of acceptance and the ability to use it will affect the successful implementation of blended education. The lack of adequate training, the intensity of the workload, etc. factors will affect the number of students to whom instructors will apply blended education, the content and the type of course they can apply. For this reason, it is a necessity to have technical and pedagogical education (Benson, Anderson, & Ooms, 2011).

Blended distance learning is increasing its importance day by day in the digital age, and the number of trainers providing education in this way is increasing every year. Looking at the literature, it is seen that researches on blended learning are carried out at various educational levels; teacher education (Edannur & Marie, 2017; Atmacasoy & Aksu, 2018), English language learning (Gulnaz, Althomali, & Alzeer, 2020), nursing education (Sáiz-Manzanares, Escolar-Llamazares, & Arnaiz González, 2020), engineering (Alkhatib, 2018), et al. As Van Laer and Elen (2020) stated, most of the recent studies have been conducted to compare traditional education and blended education. In addition, a limited number of studies have been carried out studies on theoretical applications and

adaptation of participants and application stages in blended learning studies (Anthony, ve diğerleri, 2020). When systematic studies examining theoretical applications and adaptation processes are examined in detail, most of the studies include the thoughts and opinions of students (62%), while only 10% of the teachers' adaptation to blended learning and the factors affecting using blended learning are examined (Anthony, ve diğerleri, 2020). Researchers show that it is necessary to investigate the latest situation in recent years, when intensive online and blended education applications were made during the pandemic process, and this limitation is a symptom of a gap that needs to be addressed.

With this study, it is aimed to reveal the views of educators on blended learning and their experiences in the adaptation process. Due to the current Covid-19 pandemic, the physical conditions of learning environments and the measures taken within the scope of combating the epidemic, blended teaching practices, including distance education, have gained much more importance. As Saboowala and Mishra (2021) stated, there are few studies investigating the problems and situations related to educators. In addition, the spread of blended learning applications in different education levels reveals the interest in this field. Instructors' thoughts on blended learning can be used to examine and improve the effects of online learning in the future (Yaghoubi, Mohammadi, Iravani, Attaran, & Gheidi, 2008).

Demographic and personality traits that may affect instructors' perceptions of blended learning can be used to gain in-depth knowledge of the conditions necessary for blended learning to be successful and effective. Increasing student satisfaction will help students adapt to online environments. Students with high satisfaction will be able to increase their participation in the lesson (Faize & Nawaz, 2020). Factors affecting student satisfaction vary (instructor and his approach, lack of communication, physical conditions, etc.). It is one of the important components that affect the approach of the trainers and the general knowledge of the field and the use of technology (Kandemir, 2015). Therefore, it is necessary to scrutinize the thoughts of educators on remote online blended learning during the pandemic process, which has transformed it into a real-time experimental workspace in the history of humanity. Based on current higher education trends, there is every reason to expect that distance education will fill the gap left by traditional face-to-face education and become an integral part of the educational process. In conclusion, it is pertinent and useful to examine the issues in evaluating the effectiveness of blended forms of distance education.

With this study, it is aimed to shed light on the opinions and experiences of the academicians, who are thought to have a higher assumption of experiencing the blended teaching method, regarding the use of the blended method at the higher education level.

For this purpose, answers to the following research questions were sought;

1) According to the academics, how many students can be taught effectively with the blended method?
2) What are the academics' thoughts on teaching with the blended method in the future?

3) What do academics think when they compare the blended method with the traditional method?
4) According to the academics, is there any technology or material that can be used in blended courses?
5) What are the (most) positive aspects of using the blended method, according to academics?
6) What are the (most) negative aspects of using the blended method, according to academics?
7) Did the blended course experiences of the academicians affect the face-to-face lectures?

This study will shed light on the discovery of the views and experiences of academics who have experienced the blended method in higher education. In addition, it is believed that valuable findings will be presented in terms of giving ideas and guiding academicians, teachers and educators who want to use the blended method in their lessons. It will also provide valuable information for researchers who want to ensure effective learning in blended learning environments. Finally, it is thought that it will provide valuable findings in terms of giving ideas to instructional design experts who are considering developing a design based on blended learning. In the next parts of the study, it will be continued with the method part.

3. Material and Methods

This is a study that adopts mixed research design principles, aiming to project the views and experiences of academics who experience blended learning. In the next part of the study, the design of the study, the study group, the data collection tool, the analysis methods, and the explanations for the validity and reliability of the study are given respectively.

With the increase in technological opportunities, the spread of online learning applications has increased the interest in the blended learning model day by day. In this context, a mixed research methodology, in which quantitative and qualitative data are used together, has been adopted in this study, which aims to shed light on the views and experiences of academics who have experienced the blended model in higher education. In this way, it is aimed to reveal the opinions of the academicians about using the blended model in the classrooms, as well as to understand the factors behind these views.

In this study, in which a mixed research methodology was used, a parallel mixed design was used in which quantitative and qualitative research data were collected and analyzed simultaneously and the findings were evaluated together (Creswell, 2012; Şimşek, 2014; Creswell & Plano Clark, 2015). The data collection process was completed by applying quantitative and qualitative questions together in the measurement tool, the analysis of the collected data was carried out simultaneously and the findings were interpreted together.

3.1 Research Sample

The convenient sampling method, one of the non-random sampling methods, was used in the determination of the quantitative and qualitative sampling by using the same academicians. Appropriate sampling is defined as the collection of research data from an easily accessible sample (Büyüköztürk et al., 2014). Researchers can create a research sample by including sample units that they can easily reach by using convenient sampling method (Kılıç, 2012). This method, which is also referred to as "easy sampling" in some sources in the literature, can be preferred by researchers for reasons such as low cost, time savings or reduced workforce (Şimşek, 2014). In this context, the necessary information was given to the academicians working at 16 universities in Turkey about the study via the LinkedIn network, and the data collection tool was shared with the academicians. During the data collection process, the questions of the academicians regarding the research were answered over the LinkedIn network, and necessary explanations were made on the subjects that were not understood.

58 academicians from 16 universities participated in the study, and the answers of 6 academicians who stated that they had not used the blended method before were removed from the data set and the data analysis process was started. In Table 1, statistical information about whether the academicians who responded to the data collection tool used the blended method or not is given.

Table 1: Blended Lesson Experiences of Academics Participating in the Survey Study

Blended Method Teaching Status	**N**	**%**
I teach / teach with the blended method	52	89.65
I did not teach with the blended method	6	10.35
Total	**58**	**100.00**

Table 2: Demographic Characteristics of the Study Group

	Demographic	**N**	**%**
Gender	Female	30	57.70
	Male	22	42.30
	Total	**52**	**100.00**
Age	26-40	17	32.70
	41-60	32	61.50
	+61	3	5.80
	Total	**52**	**100.00**
Seniority	1-10	14	26.90
	11-20	16	30.80
	21-30	14	26.90
	+31	8	15.40
	Total	**52**	**100.00**
Title	Research Assistant	3	5.80
	Lecturer	11	21.10
	Dr. Lecturer	3	5.80
	Dr. Faculty Member	16	30.80
	Associate Professor	10	19.20
	Professor	9	17.30
	Total	**52**	**100.00**

In Table 2, various information about the demographic characteristics of the research sample is given. While the majority of the academicians (57.70%) are female academicians, when their distribution by age groups is examined, it is understood that they are clustered in the 41-60 age group to a large extent (61.50%). Looking at the distribution of academics according to their seniority, it is seen that they are close to each other.

3.2 Data Collection Tool

In this study, a wedge-shaped questionnaire consisting of Likert, multiple-choice and open-ended questions was used as a data collection tool. Questionnaires are data collection tools used to gather information on options to reveal their opinions, views, orientations, preferences, behaviors or expectations about a subject (Balaban Tuesday, 2014).

The data collection tool used in this study was the "Blended Course/Course Questionnaire", which was adapted into Turkish and developed by the researchers. During the scale adaptation process, the translation of the questionnaire developed in a foreign language was carried out separately by 9 linguists. Translations made by language experts were evaluated independently by researchers. At the last stage of the translation process, the evaluations made by the researchers were compared and the compatibility between the translations was examined, and the Blended Lesson/Course Questionnaire was finalized by making the necessary corrections in line with the opinions of the field experts and assessment and evaluation experts.

3.3 Data Analysis

Validity in scientific studies explains whether the feature to be evaluated has been measured in accordance with the purpose. Reliability, on the other hand, describes the degree to which a test or scale consistently measures what it wants to measure. While the concepts of validity and reliability are used in quantitative research, the concepts of credibility, the accuracy of results and competence of the researcher are preferred in qualitative research. In qualitative research, reliability should be considered within the scope of validity-reliability studies. In order to ensure reliability, criteria such as confirmability, believability and transferability are considered (Creswell, 2016).

In order to ensure internal validity in scientific studies, researcher bias reduction and triangulation techniques should be used. For external validity, attention should be paid to the detailed introduction of the sample or participants within the framework of the transferability criteria. A detailed introduction of the research method, triangulation of data, and another researcher's review of process outcomes (peer inquiry) are often used to ensure reliability. In addition, the triangulation technique can be used within the framework of the verifiability criterion (Başkale, 2016).

In this study, various procedures were used to ensure the validity and reliability of the research. Within the scope of validity studies, a mixed research methodology, in which quantitative and qualitative research methods are integrated, has been adopted. In this way, the views of the academicians participating in the study were examined in

depth and more satisfactory findings were obtained. In addition, in order to increase the validity of the research, it was aimed to reveal the general tendency of the blended model and its applications in the field by reaching academicians from various departments of the universities.

Within the scope of reliability studies, the support of English language experts was received for the questionnaire, which was translated into Turkish in order to increase its credibility. Thus, it is planned to minimize the mistakes that may bleed from the structure of the language and to make the translation that gives the most accurate meaning. Another important step taken in this context is that the opinions of field experts and assessment and evaluation experts were consulted for the measurement tool. In this way, it has contributed to the safe measurement of the desired feature. In addition, the qualitative data were coded independently by the researchers, and in the next step, the differences between the codes reached by the researchers were eliminated and the harmony between the codes was increased. In this way, it is aimed to minimize the subjective errors originating from the researcher. Finally, the qualitative findings reached within the scope of the research were supported by direct quotations from the discourses of the participants. In this way, it is aimed to share the views of the participants, which are the source of the qualitative findings, directly with the reader.

4. Results and Discussion

In this study, descriptive statistics (frequency, percentage and mean) were used in the analysis of Likert-type quantitative questions, and content analysis was used in the analysis of qualitative data. Scale intervals were determined to be used in the analysis of Likert-type questions. Scale intervals for 4-point Likert are shown in Table 3, and scale intervals for 5-point Likert-item are shown in Table 4. In the analysis of qualitative data, academics were coded with the labels A1, A2, A3, ….., A50, A51, A52. In order to support the qualitative data, the references made to the discourses of the academicians were described with this coding technique.

Table 3: Scale Ranges for a 4-point Likert

Weight	Lower – Upper Limit
1	1.00 – 1.75
2	1.76 – 2.50
3	2.51 – 3.25
4	3.25 – 4.00

Table 1: Scale Ranges for 5-point Likert

Weight	Lower – Upper Limit
1	1.00 – 1.80
2	1.81 – 2.60
3	2.61 – 3.40
4	3.41 – 4.20
5	4.21 – 5.00

In the next part of the study, firstly, the findings related to the preparatory questions of the research were shared, and then the findings categorized according to the research questions were included.

P1. Lessons Taught by Academics with Blended Learning Method

The Blended Lesson/Course Questionnaire was used to collect data in this study and includes two preparatory questions. The first of these questions are aimed at describing which courses the academicians teach with the blended method. In this context, 52 of the 58 academicians who responded to the data collection tool stated that they had given one or more courses using the blended method before. Based on the answers given by the academicians, it is understood that 72 different courses were given using this method. The ones given by more than one academician from these courses are shown in Table 5.

Table 2: Top 5 Lessons Taught by Academics with the Blended Method

Lessons	**f**
Informatics Education Programs	3
Information Technologies	2
Graphics and Animation in Education	2
Office Software	2
Teaching Practice	2

Based on the data in Table 5 and Figure 1, it can be said that the lessons taught with the blended method were predominantly lessons related to information technologies. Other lectures given by academics are visualized in Figure 1 using the word cloud technique.

Figure 1: Lessons Taught by Academics with the Blended Method

P2. Trainings Received by Academicians through Distance Education

The second question posed to the academics within the scope of the preparatory questions is aimed at describing whether the academicians have received distance education and what kind of education those who received distance education received. While 30 academicians who made up the study group stated that they received distance education, 20 academicians did not receive any distance education, and 2 academicians

did not answer this question. When the answers of the academicians were analyzed, it was found that 20 different educations were received through distance education. The first five educations received the most with distance education are given in Table 6.

Table 3: Top 5 Trainings Acquired by Academicians via Distance Education

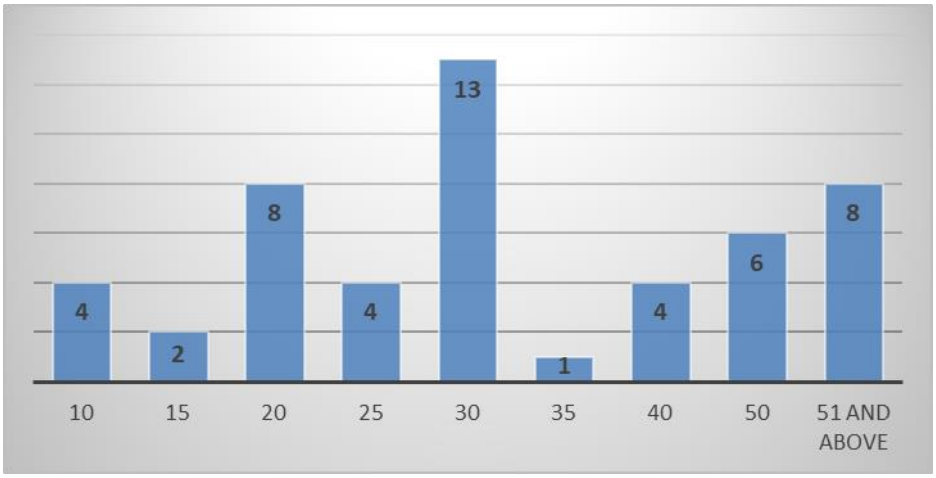
Education	**f**
University Certificate Programs	6
Distance Education Software Training	5
Graduate Courses	4
Undergraduate Courses	2
Research Methods (Quantitative/Qualitative)	2

Other trainings received by academics through distance education are given in Figure 2 using the word cloud technique.

Figure 2: Various Trainings Received by Academicians via Distance Education

Q1. According to the academics, how many students can be taught effectively with the blended method?

Academics were asked how many students on average they could teach effectively using the blended method. The answers received from the academicians are presented in Graphic 1. Based on the data in Chart 1, 26% (f=13) of the academicians stated that they could effectively teach by using the blended method with up to 30 students, 16% (f=8) with up to 20 students, and 16% (f=8) with 51 or more students. Academicians gave answers to at least 35 students (f=1, 2%) and up to 15 students (f=2, 4%). The answers of two academicians were excluded from the analysis because they did not specify a quantitative quality.



Graph 1: Number of Students that Academicians Can Teach with the Blended Method

Q2: What are the academics' thoughts on teaching with the blended method in the future?

The intentions of the academicians regarding whether they will be able to teach with the blended method in the future are described in Table 7. Considering the findings, almost half of the academicians (f=24, 46.20%) stated that they could possibly teach with the blended method. A very small part of the academicians (f=6, 11.50%) stated that they would not teach with the blended method and showed a negative attitude.

Table 7: Academics' Intentions for Future Blended Teaching

Definitely No		**Probably No**		**Probably Yes**		**Definitely Yes**		$\bar{x}$
(1)		**(2)**		**(3)**		**(4)**		
f	**%**	**f**	**%**	**f**	**%**	**f**	**%**	2.80
6	11.50	10	19.20	24	46.20	12	23.10	

The average of the answers given by the academicians is $\bar{x}$ = 2.80. Considering the scale ranges defined for the 4-point Likert in Table 3, the average of the study group corresponds to the "2.51 – 3.25: Probably Yes (3)" band. In this context, it can be said that the academicians participating in the study will probably be able to teach with the blended method in the future.

In relation to the previous question, the reasons for the academicians' intention not to teach with the blended method in the future are given in Table 8. Looking at Table 8, it is understood that among the reasons why academicians do not want to teach with the blended method are: limited communication, not being suitable for practical courses, low participation in the course, not being seen as efficient and limited interaction factors.

Table 8: Factors Affecting Academics to Teach with the Blended Method in the Future

Factors Affecting Blended Teaching	**f**
Limited communication	5
Not suitable for practical lessons	4
Less attendance	3
Not efficient	3
Limited interaction	2
Inability of students to focus enough on the lesson	1
Crowded classes	1
Virtual sense of loneliness	1
Inequality of opportunity	1
Disadvantaged for weak students	1
Increased workload	1
Infrastructure issues	1
Face-to-face education is essential in formal education	1
Total	**25**

Some of the answers given by the academicians to this question are given below by quoting directly;

"*It reduces the possibility of physical communication with students, seeing all students simultaneously in a common environment, seeing instant reactions of students without missing them, and giving immediate feedback. Internet connection problems affect the course of the course very badly. In addition, it prevents the teacher from directly intervening in the process of applied lessons. In order to eliminate this obstacle, it is necessary to allocate extra time to each student, so I think that the practical parts of the applied courses are not appropriate*." (A5)

"*Online courses cannot provide interaction with students. Even the students' participation in the lesson is not fully understood. A one-sided communication takes place. If the conditions are improved and students participate in online education, the blended system will be beneficial. In other words, students' homework and applications related to the course can be evaluated in online courses*." (A13)

"*This education system causes inequality among students*." (A32)

"*Ensuring participation in online classes and assignments is a challenging situation. In addition, subjects such as putting resources and homework on the online system, checking the homework and feedback impose an extra burden on the lecturer*." (A38)

"*I don't think it is effective. Looking at the participation afterwards, I observe that the majority of them do not listen to the repetitions of the lessons. Also, I think that if a student participates in the education process by taking their own lecture notes rather than listening to the lecture again and again, I think it will be more effective*." (A47)

Q3. What do academics think when they compare the blended method with the traditional method?

When the academicians compared the blended method with the face-to-face method, their evaluations of the quality of the education in their courses are given in Table 9. When the findings were examined, 34.60% (f=18) of the academicians stated that it was better, while 5.80% (f=3) stated that it was very worse.

Table 9: Opinions of Academicians on the Comparison of the Blended Method and the Face-to-Face Method

Very Bad		**Worse**		**Kind of the Same**		**Better**		**Very Good**		$\bar{x}$
(1)		(2)		(3)		(4)		(5)		
f	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	3.63
3	5.80	9	17.30	16	30.80	18	34.60	6	11.50	

The average of the answers of the academicians is $\bar{x}$=3.63. Considering the scale intervals defined for the 5-point Likert in Table 4, the average of the study group corresponds to the "3.41 – 4.20: Better (4)" band. In this context, it can be said that the academicians participating in the study declared that the quality of education in blended courses was better than compared in face-to-face.

The findings regarding the answers given by the academicians to the open-ended question asked to compare the amount of interaction in the blended classroom with the amount of interaction in a face-to-face lesson without any web component are given in Table 10.

Tablo 10: The amount of Interaction in the Blended Class Compared to the Face-to-Face Class

Categories	**Code**	**f**
Higher	The amount of interaction is higher in blended lessons	7
	The amount of interaction is much higher in blended lessons	4
	Total	**11**
Lower	The amount of interaction is lower in blended lessons	18
	The amount of interaction is much lower in blended lessons	3
	Extremely weak interaction in blended lessons	4
	Total	**25**
Moderate	The amount of interaction in blended lessons is moderate.	4
	Total	**4**
Others	It can vary depending on various factors	2
	Not decided	2
	Total	**4**

Some trainers stated that engagement increases with blended learning. However, a large proportion of respondents said there was less interaction than face-to-face teaching (Table 10). Some of the answers given by the academicians to this question are given below by quoting directly;

"*The engagement is getting much higher*." (A2)

"*The use of various visual and auditory technological tools through blended learning considerably increases the amount of interaction in blended learning compared to face-to-face education*." (A11)

"*There is very little interaction in the blended classroom, face-to-face interaction is obviously more intense*." (A48)

"*Almost zero. It is possible to communicate by force*." (A51)

"*Most of the time, I can't understand whether students are really there or no in the distance learning process*." (A53)

"*Evaluation can be made according to the course, but we can say that the engagement has weakened in general*." (A54)

The evaluations of the academicians regarding the comparison of the interaction quality in the blended classroom with that in the face-to-face classroom without any web component are given in Table 11. When the findings were examined, nearly half of them gave an answer of 40.30% good (better: f=15, 28.80%; very good f=6, 11.50%) while 36.60% answered badly (worse: f=111, 21.20%; very bad: f=8, 15.40%. About a quarter of the participants (f=12, 23.10%) stated that the quality of the interaction in the blended classroom is the same as in the classroom without any web component.

The average of the answers of the academicians is $\bar{x}$=3.00. Considering the scale intervals defined for the 5-point Likert in Table 4, the average of the study group corresponds to the band "2.61 – 3.40: It is considered the same (3)". From this point of view, it can be said that academicians regard the quality of interaction in the blended classroom as equivalent to the classroom without any web component. As it is known, some of the blended courses can be carried out online. It is thought that searching the amount and quality of interaction can be effective in minimizing the disadvantages created by online environments. This situation reveals the necessity of increasing the quality of interaction in the blended classroom.

Table 11: Academics' Views on the Quality of Interaction in the Blended Classroom

Very Bad		**Worse**		**Kind of the Same**		**Better**		**Very Good**		$\bar{x}$
(1)		**(2)**		**(3)**		**(4)**		**(5)**		
f	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	3.00
8	15.40	11	21.20	12	23.10	15	28.80	6	11.50	

The findings regarding the answers given by the academicians to the open-ended question asked to compare the quality of the interaction in the blended classroom with

the quality of the interaction in a face-to-face lesson without any web component are given in Table 11.

Table 12: Quality of Interaction in the Blended Class Compared to the Face-to-Face Class

Theme	**Code**	**f**
Better	Better quality of interaction in blended lessons	10
	The quality of interaction is much better in blended lessons	4
	Total	**14**
Worser	Worse quality of interaction in blended lessons	23
	The quality of interaction is much worse in blended lessons	4
	Extremely weak interaction in blended lessons	1
	Total	**28**
Moderate	Interaction quality in blended lessons is moderate	1
	Total	**1**
Others	The quality of the interaction is similar in both methods	6
	It may vary depending on the course or various factors	2
	Undecided	1
	Total	**9**

Considering the findings in Table 12, it can be interpreted that the academicians perceive the quality of interaction in blended courses as worse than the quality of interaction in face-to-face courses without any web component.

Some of the answers given by the academicians to this question are given below with direct quotations;

"*Extremely inadequate*." (A3)

"*Interaction is a little better in the blended classroom*." (A8)

"*With the help of various technological tools, I have the opportunity to deliver interactive tools that are not available in face-to-face education to students with the help of Blended learning. These interactive tools; It gives the opportunity to present information through audio/visual means and students have the opportunity to watch these tools many times. Thus, they can reinforce the information they receive through face-to-face training with interactive technological tools. In addition, with the usage rates of these tools, it is possible to evaluate the students effectively."* (A11)

"*It may differ according to the course*." (A26)

"*The quality is determined by the teacher, the material and the student. According to these variables, the quality of blended learning will vary*." (A46)

"*There is a compulsory interaction. The quality is of course very low. Communication does not happen voluntarily*." (A51)

"I don't think there is a difference, the participation still comes more often than the students who attend the class formally. Some courses may rarely have higher attendance. But in general, those who participate online tend to stay quieter." (A53)

"*The quality of the interaction was also negatively affected*." (A54)

Q4: According to the academics, are there any technologies or materials that can be used in blended courses?

The academics were asked whether there was any support, equipment, technology or training that they thought could help them in their blended courses. The first five codes obtained from the answers of the academicians are given in Table 13.

Table 13: Assistive Technology and Materials That Can Be Used in Blended Lessons

Code	f
Need-based trainings (web 2.0, web, innovation, technical, etc.)	5
Video and audio peripherals	5
Online content	4
Virtual reality technology	4
A powerful computer	3

When the table above is examined, it is stated that the web, web 2.0, innovation or technical trainings are the most effective for the academicians in the blended courses. They define other support elements that they consider important as video and audio units, online content, virtual reality technology and a powerful computer.

The other 26 codes obtained from the answers of the academicians are presented by using the word cloud technique and visualized in Figure 3.

Figure 3: Assistive Tools and Technologies Used by Academics in Blended Lessons

Q5: What are the (most) positive aspects of using the blended method?

The opinions of the academicians about the most positive aspects of teaching a course with the blended method are given in Table 14. When the findings are examined, it is seen that 30 different codes have been reached. According to academics, the most positive aspects of teaching with a blended method are the use of technology (f=9), the flexibility of space (f=8), the flexibility of time (f=7), equality of opportunity (f=5), increased interaction (f=3), time-saving (f=3) and being economical (f=2).

Table 14: The Most Positive Aspects of the Blended Method by Academics

Code	f	Code	f
Use of technological opportunities in lessons	9	Adapting to different teaching methods and techniques	1
Space flexibility	8	Increased interest	1
Time flexibility	7	Increased cooperation	1
Opportunity equality	5	Access to course content by watching recordings	1
Increased interaction	3	Increased motivation	1
Saving on time	3	Blocking student excuses	1
Being economical	2	Being student-centered	1
Active participation	1	Reaching students outside of the classroom	1
Structuring of knowledge	1	Giving students a different perspective	1
Creating a course archive	1	Increasing measurement and evaluation opportunities	1
Accessing and sharing course resources	1	Encourage planning and programming	1
Invite guests to the lecture	1	Class sizes are not crowded	1
More practice in the face-to-face section	1	All students can reflect themselves	1
Enabling effective learning	1	High efficiency	1
Offering additional learning opportunities	1	Following innovations and opportunities	1

Some of the answers given by the academicians to this question are given below by quoting directly;

> "*Ensuring that all students can speak and express their opinions. Bring out your skills.*" (A1)

> "*Fast and instant shared access to information using the internet.*" (A5)

> "*It increases the possibility of interaction, cooperation and evaluation.*" (A11)

> "*Technological developments can be reflected in the lessons more. In this sense, students prepare and upload their homework electronically, and teachers can access and evaluate them more easily.*" (A15)

> "*Even if he is far away or sick, the online course gives a chance to attend.*" (A23)

"*Opportunity to receive education independent of time and place*". (A26)

"*Creating the opportunity to access the course at any time*." (A34)

"*Different materials such as screen sharing and video demonstration can be easily shown to students. In addition, problems such as the teacher's voice not being heard in crowded classrooms will not be experienced in blended classrooms*." (A37)

"*It provides the opportunity to access the content whenever and wherever you want*." (A41)

"*To stretch time and opportunities, to reach students outside of the classroom*." (A57)

Q6: What are the (most) negative aspects of using the blended method?

The opinions of the academicians about the least positive aspects of teaching a course with the blended method are given in Table 15. When the findings are examined, it is seen that 30 different codes have been reached. According to the academicians, the least positive aspects of teaching with the blended method are the problem of attendance (f=5), lack of communication (f=5), infrastructure problems (f=4), and technological deficiencies (f=4), increased workload (f=5). 3), interaction weakness (f=3), measurement and evaluation reliability (f=3), inability to make eye contact (f=2), low motivation (f=2), unethical situations (f=2), lack of face-to-face communication (f=2).

Table 15: The Most Positive and Fewer Aspects of the Blended Method According to Academicians

Code	f	Code	f
Class attendance problem	5	Failure to deliver course registration to absent students	1
Lack of communication	5	Extra time requirement	1
Infrastructure issues	4	Ergonomic challenges	1
Technological inadequacies	4	Inequality of opportunity	1
Increased workload	3	Inability to observe	1
Weakness in interaction	3	Inability to reach non-participating students	1
Measurement and evaluation reliability	3	Ignoring participation problems	1
Inability to make eye contact	2	Students' lack of attention and concentration	1
low motivation	2	Low tech literacy of students	1
Unethical (cheating, plagiarism, etc.) situations	2	Technical opportunities for students	1
Lack of face-to-face communication	2	Teacher-centered education	1
Transfer of information	1	Sync problem	1
Doubt for online course attendees	1	Disrupting spontaneity	1
much intervention	1	Unsure of the participation of all students	1
Moving away from lesson goals	1	Feeling of loneliness	1

Some of the answers given by the academicians to this question are given below by quoting directly;

"*Preparing instructions and sample materials to plan the lesson and convey its logic to students requires additional time and effort*." (A2)

"*Unethical situations in doing homework or projects (cheating, etc.).*" (A11)

"*Not being sure of the participation of all students*." (A20)

"*Not being able to see the facial expressions of the students. Not being able to understand whether they really understood the issue*." (A27)

"*As face-to-face interaction is limited, the interaction level will still remain low even though it is varied.*" (A37)

"*Technical opportunities that students have.*" (A40)

"*Continuation and class participation problem*." (A41)

"*Failures in infrastructure, low-tech literacy of students*." (A45)

"*Measurement reliability in exam systems*." (A50)

"*Sometimes I ask questions to the remote participants and wait for the answers for a while, you don't know if the answer will really come, sometimes there is no answer and you wait in vain, sometimes you wait for a while because there is no answer, the answer comes while it continues. Therefore, it is very difficult to get an answer at a time synchronized with the question.*" (A53)

"*It is a strain caused by constant talking. Lack of attention or concentration of the other party... Internet glitches etc...*" (A56)

Q7: Have the blended course experiences of the academics affected the face-to-face lectures?

The opinions of the academicians on whether the experience they have gained in blended courses affects the lessons they give face-to-face or not are given in Table 16. When the findings are examined, it is understood that the majority of the academicians think that the experience they have gained in blended courses does not affect their face-to-face courses. Some academics, on the other hand, stated that they mostly included digital technologies in their lessons, taught web-interactive courses, and interacted with students by communicating more. Other codes obtained from the answers of the academicians are shared in Table 16.

Table 16: The Effect of Academicians' Blended Lesson Experiences on Face-to-face Lessons

Theme	Code	f
Yes	I started to include digital opportunities more in the lessons.	2
	I tried to do my lessons with web interaction	2
	I tended to interact more with students	1
	I tried to communicate more with students.	1
	I started using online tools	1
	I started using various applications for lessons.	1
	I created more course material	1
	I transferred the course contents to electronic media	1
	I learned about online education opportunities	1
	I better understood the importance of getting feedback in lessons.	1
	I realized the importance of interactive lessons.	1
	I started to care more about the reliability of measurement tools.	1
	I realized the importance of using methods with visual efficiency	1
	I realized that students need to be more active	1
	I realized that I had problems in accessing materials in face-to-face classes.	1
	I realized that it is necessary to be careful about time management.	1
	Total	**18**
No	Did not affect	25
	Total	**25**
Others	I haven't taught face-to-face yet after the blended lesson	2
	Total	**2**

Some of the answers given by the academicians to this question are given below with direct quotations;

"*After the blended lesson, I haven't given any face-to-face lessons yet.*" (A2)

"*The need to use methods with visual effectiveness in face-to-face education has definitely manifested itself.*" (A3)

"*Did not affect*" (A8, A21, A33)

"*I better understood the importance of getting feedback about the course in face-to-face lessons. It is difficult to get feedback in online courses*." (A15)

"*I tended to do all my lessons with web interaction.*" (A16)

"*I thought that face-to-face training was more effective in establishing organic bonds, but we started to get to know each other better in online training. In face-to-face training, I realized that I had difficulties in accessing resources and visuals*." (A29)

"*It affected positively, my web usage increased*." (A30)

"*It definitely affected. I have come to the conclusion that my students should be more active. They should also be prepared before coming to the lesson and have a good command of the course content. They should know the topics to be covered in advance.* (A42)

"*My lecture notes have become more regular. I have come to place more emphasis on interaction and the reliability of measurement systems*." (A50)

"*Impressive, I include digital opportunities more in the course."* (A58)

5. Recommendations

As stated by the academics, blended courses are mostly carried out with the support of technology. As a matter of fact, the use of technology in lessons can be interpreted as an important support factor in providing flexibility in both time and space. In this context, it can be said that the flexibility of time and space provided by using the blended method in the lessons will have a positive effect on ensuring equality of opportunity in education, as stated by the academicians. According to academics, the most negative (least positive) aspects of using the blended method are attendance problems, lack of communication, infrastructure problems and technological inadequacies. It can be said that the technical problems and the lack of information about the blended method are also the basis of these negativities stated by the academicians. In order to minimize these problems, it is thought that solving technical problems, strengthening the infrastructure, and providing supportive and complementary trainings on the blended method will minimize negative perceptions about the blended method. Although some of the academicians stated that their experiences in blended courses affected their face-to-face courses, almost half of them stated that their blended course experiences did not affect their face-to-face courses. It is a thought-provoking finding that nearly half of the academicians participating in the study adopted the blended method and stated that it did not affect their face-to-face lessons even though they expressed their will to use it in the future. The question that needs to be addressed in new studies to be carried out in this direction should be to answer why academicians do not or cannot transfer their experiences in blended courses to face-to-face courses.

The academics, who stated that they would not use the blended method in the future, emphasized the limitations such as limited communication, not being suitable for applied courses, low participation, the ineffectiveness of the courses and low interaction as reasons for this situation. As Posey & Pintz (2017) stated, in order to be successful in applying blended learning, a well-designed strategy is required and it takes time to prepare by using appropriate instructional design and some activities have to challenge student's interaction. However, these limitations stated by the academicians can be minimized with different methods or with the support of technology and materials. For example, the use of web 2.0 tools in distance lessons can increase communication and interaction with students, this situation can increase the motivation of the students and enable the lessons to be carried out more effectively, as well as positively affect the

participation in the lessons. Therefore, it is thought that researching solutions to eliminate these limitations expressed by academicians in new studies may contribute to the more widespread and effective use of the blended method.

6. Conclusion

With this study, it is aimed to reveal the views and experiences of the academicians who have experienced the blended method in their lessons. In this context, the lessons taught by the blended method, the intentions of the academicians to teach with the blended method in the future, their evaluations of comparing the blended lessons with the face-to-face lessons, and their views on the positive and negative aspects of using the blended method in the lessons, and their evaluations on whether the blended lesson experiences affect the face-to-face lessons are discussed.

When the research findings are examined, it is understood that the academicians who stated that they experienced the blended method mostly while giving the courses related to information technologies. It can be said that this is not something to be denied. Considering that the understood lessons are mostly carried out with the support of technology, it is highly probable that the blended method will be used in the lessons where technology is used intensively. Therefore, it can be considered as an expected situation for academicians who use information technologies more frequently to prefer the blended method in their lessons. As a matter of fact, when the research findings are examined, it is seen that the courses such as Informatics Education Programs, Information Technologies, Office Software, Graphics and Animation in Education are among the courses given by the academicians with the blended method. Asrafh et al. (2021), as a result of their systematic field research, stated that blended learning attracted attention and its use increased in all fields, but it was used more in applied fields such as medical education, information technologies and STEAM education.

When the trainings received by academics through distance education are examined, it is seen that various trainings are received from different fields. It is understood that these trainings are mostly for University Certificate Programs, Distance Education Software, Postgraduate, Undergraduate and Research Methods. Based on these findings, it can be said that it is possible to receive different trainings in various fields through distance education. As a matter of fact, when the other trainings received by the academicians are examined, it can be clearly seen that different trainings such as Java Script, Occupational Health and Safety, Personal Development or First Aid Analysis have been taken.

While the majority of the academicians stated that they would be able to teach with the blended method in the future, a small portion of them stated that they would not use the blended method in the future. There were different reasons for those who will not use the blended method in the future; limited communication and interaction, crowded classes and workload, etc. Previous published blended learning experiences agree with this perception. Although using technology is considered as eliminating communication problems between teacher-student and student-student interaction,

some educators participating in previous studies viewed limited communication as a barrier in using blended learning (Rasheed, Kamsin & Abdullah, 2020; Finlay, Tinnion & Simpson, 2022). As researchers reported that the challenges in the implementation of blended learning are workload because of crowded classes, work schedules and using various technology (Ibrahim & Ismail, 2021; López-Fernández, Burgueño, & Gil-Espinosa, 2021). The academicians stated that the most productive studies will be carried out in classes containing 20-30 students. However, in universities, the number of students in some classes is more than this number. In order to solve the workload problem, it is recommended that educators make the planning in balanced way (Killian & Woods, 2018), conduct their lessons with collaborative studies when necessary and appropriate (Ismail & Kinchin, 2019), and create harmonious collaborations between educators (Vangrieken, Dochy, Raes, & Kyndt, 2015). Integrating appropriate Web2.0 and Web 3.0 technologies into education and using methods that facilitate blended learning like flipped classrooms might eliminate stated problems and academicians would like to use blended learning in the future. Moreover, university management should carry out appropriate transformations in the structuring of the educators' workload and their program for blended learning. Of course, it is expected that the blended method, which we can say is relatively new and the application forms are diversifying day by day in line with the needs of the age, and which is becoming more widespread day by day, especially by academicians. It can be said that both the new situation created by the Covid-19 epidemic and the economic difficulties we are in makes it relatively difficult to provide equal opportunities in education. In addition to these, with the widespread use of technological devices, especially the use of internet-based technologies more and more intensively day by day, a kind of paradigm change in education has become necessary.

In this context, it is thought that the use of the blended method by the academicians in a way that minimizes the disadvantages of face-to-face teaching with traditional methods in the classrooms will not only increase the equality of opportunity in education but also have a positive effect on responding to the needs of the age. As a matter of fact, the research findings reveal that the majority of the academicians participating in the study have a positive view of teaching with the blended method.

The opinions of the academicians on the comparison of the blended method with the traditional methods were examined in terms of various factors. In this context, almost half of the academicians who supported the study stated that the quality of their educational experiences in blended courses is better than that in face-to-face courses. Most of the academics emphasized that the amount of interaction in the blended courses is lower than the interaction in the face-to-face course with no web component. This finding is quite thought-provoking. Although there are dozens of tools and technologies for communication and interaction with the blended method, the fact that academics find the blended method insufficient in terms of the amount of interaction is an important issue that needs to be thought about and even researched. In addition to these findings, it was found that the academicians perceived the quality of interaction in blended courses as similar to the quality of interaction in face-to-face courses without any web component. However, when examined in depth, most academicians stated that the quality of the

interaction in the blended courses is worse when compared to the quality of the interaction in the face-to-face course, which has no web component. Compared to face-to-face courses, it can be interpreted that although the academicians are generally satisfied with their educational experiences in blended courses, the amount of interaction remains below expectations. Although it is thought that the blended lessons and face-to-face lessons are similar in terms of the quality of the interaction, in the in-depth evaluations, the majority of the academicians stated that the quality of the interaction in the blended lessons is worse than in the face-to-face lessons. As López-Fernández, Burgueño, & Gil-Espinosa (2021) indicated most of the teachers stated that activities performed by students were lower than usual in face-to-face classes. To sum up, it can be said that although the academicians are pleased to experience the blended method, their expectations are not met in terms of the amount and quality of interaction. According to academics, the most positive aspects of using the blended method in lessons are the use of technological opportunities, the flexibility of space, flexibility of time and equality of opportunity.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Authors

Erhan Şengel, is an Assoc. Prof. Dr. at the Computer Education and Instructional Technology Department at Uludag University, Turkey. He offers courses at the graduate and undergraduate level. He researches and authored research articles published in international journals and book chapters about human computer interaction, usability and e-learning, blended learning and mobile learning, computer assisted language learning. orcid.org/0000-0003-0927-2814

Niyazi Aktaş is a teacher at the Ministry of National Education, Turkey. He is currently a PhD candidate in the Department of Computer and Instructional Technology Education at Uludag University. His research interests include technology integration in education, technology leadership, distance education, online learning, blended education and web 2.0 technologies. orcid.org/0000-0002-3080-5091

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