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Investigation into the views of primary school teachers on the blended learning model*[1]

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Abstract

This research aims to examine the views of primary school teachers about the blended learning model implemented in primary schools during the pandemic period. To this end, a case study design, one of the qualitative research methods, was employed. Using semi-structured interview questions, 27 primary school teachers determined by maximum diversity sampling were interviewed. To ensure maximum diversity within the study group, a range of matrices was utilized, incorporating various elements such as the presence of foreign students in class, class size, the school's regional location, professional seniority, gender, and the distinction between public and private schools. Qualitative data was analyzed using content analysis. The findings, gathered from primary school teachers' viewpoints, suggest that blended learning becomes more viable after the first two grades at the primary school level. However, issues were highlighted such as unequal access to technology due to socio-economic disparities, lack of sufficient socialization in online learning settings, and challenges faced due to classroom management problems during the teaching process, as well as issues emerging from students' home environments. The research also revealed that the teachers are largely self-educated in the practices of blended learning environments. They voiced that despite in-service training support for their existing weaknesses, improved outcomes could be realized if proper planning, essential infrastructure, and adequate financial conditions were provided.

Keywords: Blended learning model, primary school teachers, face-to-face education, online education

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INTRODUCTION

To achieve effective learning, it is necessary to first determine the best theoretical view related to the type of learning of interest, and then transfer this view to learning. Therefore, it continuously requires research to define educational tools determined according to similarities and differences among learning types (Schunk, 2014). As technology evolves, so do learning theories. Correspondingly, learning methods are also transforming in parallel to these advancements. Learning to learn is coming to the forefront. This leads to an increase in activities and the adoption of individual learning. Learning is now happening not only in the classroom but everywhere where internet access is available (Ünsal, 2010). The rapid adoption of educational technologies is also an indicator that new forms of learning and teaching are possible (Jeffrey, Milne, Suddaby & Higgins, 2014). Education is becoming more accessible and learner-centred with the support of educational technologies. Information technologies are creating changes in education in terms of student accessibility by using new methodologies for learning and teaching (Saeheng, 2017). This has led to the idea of adding technology opportunities to one-on-one teaching in the traditional classroom environment and using them in learning activities. This intersection of digital learning technologies and traditional face-to-face education constitutes blended learning.

Blended learning applications are the combination of the advantageous and prominent aspects of online learning technologies and traditional face-to-face education according to student requirements (Dağ, 2011). While benefiting from long-established methods and techniques, on the other hand, opportunities provided by technology are integrated with current teaching processes as applications that enhance the quality and permanence of the learning process (Gülbahar, Kalelioğlu & Afacan Adanır, 2020). Blended learning can provide inclusive and accessible learning that includes physical, emotional, and perceptual skills, attitudes, and pre-knowledge through an effective combination of different presentation and learning styles (Draffan & Rainger, 2006). Blended learning, which also contributes to the development of individual skills, can use face-to-face and online learning technologies in different scales and combinations (Yolcu, 2015). In blended learning, face-to-face and online applications can be arranged sequentially or as a combination to meet requirements. Learners and instructors can do their planning on how much they will use these applications (Eunjoo, 2006). This learning not only involves the inclusion of online learning but also enriches the effectiveness of learning by creating an enhanced learning environment through the integration of traditional learning with innovative tools (Cheung & Wang, 2019).

When analyzing research on blended learning, it is evident that the prevailing consensus indicates its positive impact on learning environments and the attainment of effective learning outcomes. (Acelajado, 2011; Akgündüz, 2012; Chen 2022; Geçer, 2013; Gürdoğan, 2019; Hashemi & Sı Na, 2020; Kuo, Belland, Schroder & Walker 2014; Saeheng, 2017; Waha & Davis, 2014; Wong, 2022; Uluyol & Karadeniz, 2009; Yen & Lee, 2010). When studies are examined, while blended learning is generally considered to be efficient and effective, there are reports of negative thoughts and difficulties encountered during applications in the literature. Archee (2015) concluded that a large majority of students rarely accessed blended learning sites because they were unsure of the value of new media. Kember, McNaught, Chong, Lam, and Cheng, (2010) concluded that limited internet usage applications did not significantly affect learning outcomes. Riel, Lawless, and Brown (2016) and Alebaikan and Troudi (2010) concluded that among the challenges they encountered while implementing the blended learning program were a lack of sufficient time to run the courses and the need to redesign time to include activities outside the classroom. Alam, Albozeidi, Al-Hawamdeh, and Ahmad (2022) suggest that although this method is generally cost-effective, there is a need for the development of infrastructure and up-to-date software and system installations to keep the motivation of teachers and students active and high throughout the process. Alebaikan and Troudi (2010) highlighted that students who had not previously had online experience could face difficulties in blended learning environments, and these challenges are further corroborated by El Mansour and Mupinga (2007) who indicated that the negative experiences of students in online classes often involved technological problems and a feeling of being lost.

When the literature on blended learning is examined, the most frequently used form is the combination of presentations through the inclusion of asynchronous and/or synchronous computer technologies in face-to-face instruction (Chen, 2022). Achieving balance in blended learning is very important. Based on the objectives of the courses, the most effective methods, approaches, and strategies should be used to achieve a fine balance between face-to-face and online strategies (Khan, 2015). In blended learning applications, the role of teachers is increasing compared to their roles in traditional classes with the addition of the digital teaching dimension (Çardak, 2012). Strengthening only the technological infrastructure is not sufficient to support blended learning, there are also difficulties in providing the pedagogical approach (Hill and Smith, 2023). Because blended learning requires preparation and expertise, educators also need educational support for blended learning (Archee, 2015). The role of the teacher should not be seen as defining the nature of blending. Teachers play a scaffolding and supporting role in developing courses through many different ideas, discourses, and participations, creating personalized blends for students. In this way, students' reflective, self-regulating, and self-controlling skills can be developed (George-Walker & Keeffe, 2010). It is becoming necessary for teachers to be able to effectively use technology for teaching and to create learning materials. Students, on the other hand, need to master online technology for blended learning applications and manage their learning independently from the instructor. The responsibility of educational institutions is to ensure the efficient use of existing technology and online components by providing the necessary education and technological support to students and teachers in the process for effective learning to occur (Rasheed, Kamsin & Abdullah, 2020). However, an important limitation of quality blended learning is that the curriculum's content in learning-teaching dimensions must be compatible with blended learning. Additionally, education designers' skills and competence in developing educational designs for blended learning is also important. Implementers of these designs need to have the necessary technological and pedagogical knowledge and skills. Learners are expected to have control and management skills in their learning processes during the application of the blended learning model. In addition to these, it is necessary to have technological infrastructures (Güvercin-Seçkin & Şen Zeytun, 2023). In Türkiye, during the pandemic, as a measure against the COVID-19 outbreak, a break was given from March 16 to March 20, 2020. The decision to switch to remote education was made in the week following March 23 (MEB, 2020). For the second semester of the 2019-2020 academic year, priority was given to addressing learning gaps that could affect readiness levels for higher grades, and lengthening the decision to continue remote education from August 31, 2020, to September 18 (MEB, 2021). Between 2020-2022, like other countries around the world, Türkiye experienced blended learning, which combines online and face-to-face methods as a continuation of face-to-face education during the Covid-19 pandemic. This brings blended learning more into focus and facilitates its experience. During this period of the new normal, blended learning models were seen as more practical (Güvercin-Seçkin & Şen Zeytun, 2023). In Türkiye, as a model of blended education, classes were divided into two, with one group attending school two days a week and one day following the remote teaching. The education of the groups continued with the first group attending on Monday and Tuesday, and the second group on Thursday and Friday. On Wednesdays, the entire class continued with lessons with their teachers through remote applications. As of November 17, 2020, due to the increasing cases of illness, a joint decision by the Ministry of Health and the Ministry of National Education led to a complete transition to remote education (Yaman, 2021).

With the COVID-19 pandemic experienced in Türkiye, it was envisaged that primary school teachers, whose job descriptions changed during the pandemic process, would implement the blended learning approach by giving both distance (online) education and face-to-face education. With the decision taken, primary school teachers became the implementers of both traditional face-to-face education and online education. To meet the needs of primary schools, blended learning has been implemented in all lessons in central schools in cities. The viewpoints of primary school teachers who have experienced the nationwide implementation of the new system introduced by the Ministry of National Education are

crucial in assessing the extent to which the quality and applicability of education have been affected. A thorough examination of the existing literature reveals a notable trend wherein the majority of research on this subject focuses on educational levels beyond primary school. It is important to highlight the scarcity of studies conducted specifically on primary school teachers and primary schools. Increasing the number of such studies is believed to significantly benefit primary school teachers in terms of practical applications within their specific educational setting. It is important to examine the current state of practice for more effective use of blended learning in primary schools as a better preparation for the coming years if need arises. The current study aims to determine the opinions of classroom teachers during the pandemic about the blended learning model implemented in Türkiye. The research is limited to teachers working in the central districts of a province in Türkiye where the blended learning model was implemented during the pandemic, and data for the study was collected through semi-structured interviews.

To achieve the aim of the study, teachers were asked the pre-prepared semi-structured questions listed below. Additional probing questions were also asked during the interviews when necessary. What are the views of primary school teachers on the suitability of blended learning for the level of primary school children?
What are the views of primary school teachers on equal opportunity in blended learning?
What are the evaluations of primary school teachers on the socialization of students in blended learning?
What are the thoughts of primary school teachers on the impact of blended learning on academic success?
What are the evaluations of primary school teachers in terms of efficiency-inefficiency in blended learning?
What are the reasons why primary school teachers see themselves as competent or incompetent (sufficient or insufficient) in implementing blended learning?
What are the problems that primary school teachers face in classroom management in blended learning?
What are the assessment tools used by primary school teachers in blended learning? Why?
What are the problems encountered by primary school teachers in blended learning and their proposed solutions to these problems?
What are the views of primary school teachers about receiving in-service training on blended learning?

METHOD

Research Design

In the research, the case study design, one of the qualitative research methods, was used to examine the implementation of the blended teaching model according to the views of primary school teachers. A case study is a comprehensive description and analysis of a phenomenon, based on a specific analysis unit (Merriam, 2015). In this design, real-life situations are studied by accessing accurate information. For this, single or multiple situations can be expressed as cases (Creswell, 2021). This research uses a multiple-case design. In the study, the blended learning model implemented by primary school teachers during the pandemic was examined according to the primary school level, equality of opportunity, socialization, academic achievement, productivity, proficiency in practice, classroom management, assessment, and evaluation, encountered problems and in-service training situations, through semi-structured interviews.

Participants and Procedure

The study group of the research was determined according to the purposive sampling method. In purposive sampling, the purpose of the study is set as the focal point for the selection of rich cases for in-depth analysis. There are different strategies identified for the selection of rich cases (Patton, 2018). Within the scope of this method, criterion sampling was used for different strategies. According to Patton (2018), criterion sampling is the examination of all cases that correspond to the established

criteria. In the study, maximum diversity sampling was preferred for different situations as well. The first criterion of the research was defined as primary school teachers using the blended teaching model implemented in central schools at the beginning of the pandemic period. To ensure maximum diversity within the study group, a range of matrices was utilized, incorporating various elements such as the presence of foreign students in class, class size, the school's regional location, professional seniority, gender, and the distinction between public and private schools. The study group of the research consisted of 27 primary school teachers serving in a province in Türkiye. The study was conducted after obtaining the requisite permissions from the Directorate of National Education in the respective province. The demographic characteristics of the teachers in the study group of the research are given in Table 1 according to the determined matrices.

Table 1. Demographic Information of the Study Group

Participant	Gender	E.Status	Experience	School District	Class Size	Number of Foreign Students	Grade
T1	F	B	19 years	Advantaged	38	2	1.
T2	F	G	10 years	Middle-Transition	35	7	3.
T3	F	G	4 years	Disadvantaged	38	2	4.
T4	F	B	8 years	Advantaged	35	2	1.
T5	F	B	6 years	Disadvantaged	54	6	4.
T6	F	B	18 years	Advantaged	44	2	2.
T7	M	B	25 years	Disadvantaged	32	14	2.
T8	M	B	6 years	Disadvantaged	26	13	2.
T9	M	B	10 years	Disadvantaged	45	No	4.
T10	M	B	25 years	Disadvantaged	30	16	3.
T11	M	B	21 years	Middle-Transition	29	15	2.
T12	M	B	9 years	Advantaged	38	4	3.
T13	F	B	11 years	Disadvantaged	38	8	3.
T14	M	B	8 years	Private School	44	3	1.
T15	F	G	12 years	Advantaged	36	7	1.
T16	M	G	4 years	Private School	15	No	4.
T17	F	B	9 years	Private School	18	No	2.
T18	M	B	39 years	Private School	18	No	2.
T19	M	B	17 years	Advantaged	37	No	1.
T20	F	G	15 years	Middle-Transition	45	3	4.
T21	M	B	25 years	Advantaged	36	1	1.
T22	M	G	14 years	Disadvantaged	36	8	2.
T23	F	B	11 years	Private School	17	No	2.
T24	F	G	6 years	Disadvantaged	35	2	3.
T25	M	B	6 years	Disadvantaged	14	No	2.
T26	M	B	7 years	Advantaged	42	3	2.
T27	M	A	39 years	Disadvantaged	18	No	2.

Note: E: Educational Female: F, Male: M, Associate Degree: A, Bachelor's degree: B, Graduate degree: G,

According to Table 1, the selection of the study group was made to include at least one person from each subgroup in the determined matrices. According to gender, 12 are female and 15 are male. The teachers in the study group have diverse educational qualifications: one holds an associate degree, nineteen have a bachelor's degree, and seven have completed postgraduate studies. Their professional seniority varies, with two teachers having 1-5 years of service, eleven teachers with 6-10 years, five teachers with 11-15 years, three teachers with 16-20 years, four teachers with 21-25 years, and two teachers with 26 years or more of experience. The class sizes of these teachers range from 14 to 54 students, and nineteen teachers have foreign nationality students in their classes. The study group consisted of teachers from all grade levels, including six teachers from the 1st grade, eleven from the 2nd grade, five from the 3rd grade, and five teachers from the 4th grade.

Measures

In the research, a semi-structured interview form created by the researchers was used as a data collection tool. During the creation of the semi-structured interview form, a question pool was formed by examining the related literature. Based on the thoughts and evaluations of expert faculty members in the field and two primary school teachers, an interview draft form was created from the questions in the question pool. The first part of the interview draft form consists of questions aimed at determining participants' educational status, gender, professional seniority, the region where their schools are located, class size, the number of foreign nationality students, and the grade level at which they apply blended learning. The second part contains 10 open-ended questions related to blended learning.

Data Analysis

In line with the purpose of the research, the interviews were examined with content analysis. In the study, Maxqda program was used for the analysis. According to Creswell (2019), the first stage to be followed for analyses is to transfer the data into the computer environment and make it ready for analysis. Texts created are read to create codes. These codes are then turned into evidence for themes by establishing relationships between them. The code pool is later simplified for more straightforward coding, using fewer codes. The number of codes in the text is aimed to be compiled between thirty and fifty codes. Later, unrelated and contradictory codes are separated, reduced to up to 20 codes, and approximately 5-7 themes are created. The generated codes and themes are presented using the participants' own words, reflecting their natural expressions. The thoughts and perspectives of the participants are conveyed through direct quotations. In the study, interviews were transcribed and subjected to coding and theme creation, eliminating any overlapping and redundant codes.

Validity, Reliability and Ethical Considerations

Confirmability was ensured by not incorporating the researcher's experiences into the findings, and two separate researchers conducted codings and comparisons, with the findings being supported by quotes from participants (Morrow, 2005). Transferability was realized through a comprehensive understanding of the participant characteristics, employing a purposeful sampling method for study relevance. Selections based on specific criteria and the creation of diverse matrices ensured a varied sample of primary school teachers (Lincoln & Guba, 1985). *Consistency* was upheld through expert-guided question preparation, ensuring that the questions were relevant to the research and the participants (Yıldırım & Şimşek, 2008). Credibility was maintained by using a semi-structured interview form prepared in accordance with expert advice, with voluntary participation ensured. Encoder reliability was achieved through individual and mutual encoding by two researchers, adhering to Lincoln and Guba's (1986) techniques. Inter-coder reliability was affirmed with a kappa coefficient of .65, representing a high level of agreement (Landis & Koch, 1977). To ensure content validity, faculty members were asked to evaluate the interview draft. Necessary changes were made as a result of the evaluations based on the received views and suggestions.

Before the study, ethical committee approval numbered 20 with the decision number 6 dated 07.04.2022 was obtained from Fırat University Social and Human Sciences Research Ethics Committee. Necessary permissions were obtained from the Ministry of Education for the interviews to be conducted. The clarity of the related questions was evaluated by conducting a pilot application of the interviews, and the final form of the interview form was reached. Before conducting the interviews, primary school teachers who met the research criteria were identified. Subsequently, interviews were conducted with these teachers, and their voluntary participation permissions were obtained using pre-prepared forms. The interviews were carried out online, considering the blended learning application status of the primary school teachers. A total of 27 primary school teachers were included in the research, and an introductory text about the blended teaching model was provided to them. The duration of the interviews ranged from a minimum of 20 minutes to a maximum of 30 minutes, with an average duration of 25 minutes. The interviews were recorded with the participants' consent, either in audio or video format. To ensure

anonymity, code names such as T1, T2, etc., were assigned instead of using participants' real names. Computer programs were utilized to record and store the collected data.

FINDINGS

The themes and codes created concerning the answers teachers gave to the question about *the suitability of blended learning for the level of primary school children* are given in Table 2.

Table 2. The Suitability of Blended Learning for Primary School Level

Themes and Codes		**Participants**
Theme-1	**Technology use and accessibility**	**T1, T2, T4, T5, T7, T10, T11, T13, T15, T20**
Theme-1 Codes	Accessibility	T1, T4, T7, T10, T20
	Screen dependency	T2, T5
	Technology	T13, T15
	Compatibility with technology	T1, T11
Theme-2	**Comparison with traditional education**	**T5, T7, T11, T18, T21, T25, T26, T27**
Theme-2 Codes	Not replacing traditional education	T5, T7, T18, T21, T25, T27
	Not meeting needs	T5, T7, T11, T26, T27
Theme-3	**Age group and characteristics**	**T1, T2, T4, T6, T7, T8, T9, T13, T15, T17, T18, T19, T20, T21, T22, T23, T24, T25, T27**
Theme-3 Codes	Class age level	T1, T2, T4, T7, T8, T9, T13, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24, T25, T27
	Problems experienced in individual differences	T2, T6, T17
	Readiness	T1
Theme-4	**Application status of teacher, parent in the pandemic**	**T1, T3, T5, T7, T8, T10, T15, T17, T19**
Theme-4 Codes	Parent	T1, T5, T10, T15, T19
	Grouping	T3, T7
	Readiness of teachers and school	T8, T17
Theme-5	**Implementation of lessons**	**T1, T2, T3, T4, T5, T6, T8, T12, T13, T14, T16, T21, T23, T24, T26**
Theme-5 Codes	Participation in the lesson	T2, T3, T5, T6, T23, T26
	Adaptation problem	T4, T12, T14, T26
	Being abstract	T2, T6, T8, T13
	Being concrete	T8, T24
	Assessment problem	T1, T16, T21

Among the themes related to *the suitability of blended learning for the primary school level*, the theme of age group and their characteristics has been emphasized the most. Under this theme, according to the order of most frequently stated views, the codes were class age level, problems experienced in individual differences, and readiness. The opinion of T24 related to these themes and codes is given below:

T24: ".... I don't think it's very suitable for 1st and 2nd grades because it's not suitable in terms of focusing on lessons, but I think it's more suitable for 3rd and 4th grades."

In the theme titled implementation of lessons related to its suitability for the primary school level, the codes "participation in the lesson", "adaptation problem", "being abstract", "being concrete" and "assessment problem" were created. The opinion of T26 related to these themes and codes is given below:

T26: "*We had difficulties because it is a new process regarding its suitability to the level of elementary school children. Problems like adaptation issues. We especially struggled to concentrate the children.*"

The codes of the theme named "technology use and accessibility" are "accessibility", "screen dependency", "technology" and "compatibility with technology". The codes "parent, grouping and readiness of teachers and school" were created related to the theme of "application status of teacher, parent, in the pandemic". Under the theme named "comparison with traditional education", the codes "not replacing traditional education and not meeting needs" were created.

The themes and codes formed as a result of examining the views teachers gave to the question related to equal opportunity in blended learning are given in Table 3.

Table 3. Equal Opportunity in Blended Learning

Themes-Codes		**Participants**
Theme-1	**Student**	**T2, T3, T6, T7, T8, T14, T15, T18, T19, T22, T24, T25, T26**
Theme-1 Codes	Socioeconomic status	T2, T3, T6, T8, T18, T22, T24, T25, T26
	Number of participating students	T2, T7, T8, T14, T15, T19
Theme-2	**School**	**T3, T9, T10, T14, T16, T19, T23**
Theme-2 Codes	Region where the school is located	T3, T9, T10, T14, T16, T19, T23
Theme-3	**Technological device and the Internet infrastructure**	**T1, T2, T3, T4, T5, T6, T7, T8, T10, T11, T13, T15, T16, T19, T20, T21, T26, T27**
Theme-3 Codes	Inadequacy of technological tools	T1, T2, T3, T6, T8, T10, T11, T13, T16, T20, T21, T26, T27
	Internet not being free	T1, T4, T7, T8, T15
	Internet infrastructure and access	T2, T3, T4, T5, T7, T8, T16, T19, T27
Theme-4	**Teacher-parent**	**T2, T3, T6, T7, T13, T15, T18, T19, T21, T27**
Theme-4 Codes	Multichild family structure	T3, T13, T15, T18, T19, T21, T27
	Teacher-parent knowledge gap	T2, T6, T7

As a result of examining the answers given to the question of equal opportunity in blended learning, the most frequent views were under the theme of "technological device and internet infrastructure". The codes of this theme are "inadequacy of technological tools, the internet not being free, and internet infrastructure and access ". The opinion of the teacher coded as T10 related to these themes and codes is given.

T 10: "*... accessing things like the internet, mobile phones, tablet are more difficult. Since it is difficult, there is no equality of opportunity.*"

In the "student" theme, the codes "socioeconomic status and the number of participating students" were created. The "school" theme consists of the code-named "the region where the school is located". In the "teacher-parent" theme, there are codes "multi-child family structure and teacher-parent knowledge gap". The opinion of the teacher-coded T13 related to the teacher-parent theme is given below:

T13: "*Because our parents have many children and they have only one smartphone, the class hours of their children and their participation in distance education overlapped.*"

The results of the analyses related to the answers received when asking evaluations of primary school teachers on the socialization of students in blended learning are given in Table 4.

Table 4. Socialization in Blended Learning

Themes- Codes		**Participants**
Theme-1	**Reasons for socialization**	**T7, T8, T14, T15, T16, T17, T19, T25**
Theme-1 Codes	Online chat applications	T8, T15, T17, T19, T25
	Group merging	T14, T15, T16
	Classroom environment	T7, T8
	Comfort of the online environment	T8, T17
Theme-2	**Reasons for not socializing**	**T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T18, T20, T21, T22, T23, T24, T27**
Theme-2 Codes	Socializing through a screen	T2, T5, T8, T9, T18, T20
	Pandemic	T6, T7, T13, T14, T21
	Communication problem	T12, T19, T22
	Dependency on technological devices	T4, T6
	Disconnection in online face-to-face interactions	T23, T27
	Lack of class culture	T1, T4, T6, T11, T12, T18
	Young age group	T3, T24
	Inability to play games	T5, T21
	Splitting class	T3, T10, T13

In the blended learning process, it is seen that teachers express two-way views for the dimension of socialization formed in students. It is seen that they emphasize the most on the theme related to the "reasons for not socializing". The number of codes of this theme is quite high. The codes generated according to the frequency of expressing views are coded as "socializing through a screen, pandemic, communication problem, dependency on technological devices, disconnection in online face-to-face interactions, lack of class culture young age group, inability to play games, splitting class". The views of teacher coded T18 related to this theme and codes are given.

T18: "It had a negative impact. Because socializing, that is, it doesn't happen from the window or screen. For socializing, face-to-face education is needed. After all, in distance education, we have to mute the children. We open the ones we give the right to speak one by one, they can't communicate with each other, they can't make eye contact. So, socializing doesn't happen from the screen. There is no socializing with distance education."

On the other hand, there are codes of "online chat applications, group merging, class environment, and the comfort of the online environment" according to the frequency of expressing views related to the theme created as "reasons for socializing". The opinion of the teacher coded T8 related to this theme and code is given.

T8: "I think that the child may be able to express things that he/she cannot express in the classroom a bit more comfortably in the online environment, at his/her own home."

The analysis of the views of primary school teachers about the impact of blended learning on academic achievement is given in Table 5.

Table 5. Academic Achievement in Blended Learning

Themes- Codes		Participants
Theme-1	**Reasons for increasing academic achievement**	**T2, T4, T5, T8, T14, T15, T16, T17, T20, T24, T25, T26**
Theme-1 Codes	High level of interaction	T5, T14, T17
	Facilitating learning	T2, T4, T5, T8, T15, T16, T20, T24, T25, T26
Theme-2	**Reasons for decreasing academic achievement**	**T1, T6, T7, T8, T9, T11, T12, T13, T14, T18, T19, T21, T23, T27**
Theme-2 Codes	Lack of reading comprehension skills	T21
	Decrease in motivation	T14
	Inefficiency of online education	T1, T7, T11, T12, T13, T18, T19, T23, T27
	Lack of equal opportunities	T1, T7, T8, T9
	Disconnection from school and regression	T6, T7
	Difficulty in teaching literacy	T7, T27

According to Table 5, views on the effect on academic achievement are seen again in two directions. Most of these views are collected in the theme of "reasons for reducing academic achievement". Under this theme, there are codes of "lack of reading comprehension skills, decrease in motivation, inefficiency of online education, lack of equal opportunities, disconnection from school and regression, difficulty in teaching literacy". The opinion of the teacher coded as T11 related to this theme and codes is given.

T11: "There were very big differences between the efficiency students got in the classroom and the efficiency they got online, in a negative way. They couldn't get it online. This created a deficiency academically."
According to the teachers' views, the other theme draws attention to the other direction. In the theme of "reasons for increasing academic success", the code of "facilitating learning and high level of interaction" has been created. The opinion of the teacher coded as T20 related to this theme and codes is given.

T20: "Academically, it is beneficial in terms of the child's use of visuals to access information. After all, since the child develops the self-learning part in blended education, the child learns how to access the information."

The analysis results of the evaluations of the primary school teachers about whether blended learning is efficient or not are given in Table 6.

According to Table 6, primary school teachers have mostly expressed views on the theme of "being efficient". Under this theme, codes of "suitable for primary school and flexible, ability to repeat subjects, class size, meeting the necessary conditions, better than receiving no education at all". The opinion of the teacher coded as T3 related to this theme and codes is given below:

T3: "Let me put it this way, if blended education has every level of infrastructure ready, I think it is much more efficient than normal education. But as I said, all factors need to be ready."

Table 6. Evaluation of Blended Learning in Terms of Efficiency

Themes- Codes		Participants
Theme-1	**Efficient**	**T3, T4, T5, T7, T8, T10, T11, T14, T15, T16, T17, T18, T19, T20, T22, T24, T25, T26, T27**

Theme-1 Codes	Suitable for primary school and flexible	T4, T20, T22, T24, T25
	Ability to repeat subjects	T15, T24
	Class size	T7, T8, T10, T11, T15, T16
	Meeting the necessary conditions	T3, T8, T17, T22
	Better than receiving no education at all	T5, T10, T14, T18, T19, T26, T27
Theme-2	**Not Efficient**	**T2, T3, T4, T5, T6, T7, T8, T9, T12, T13, T17, T19, T20, T23, T24, T25, T27**
Theme-2 Codes	The harm of online education to health	T19, T23
	Lack of equal opportunities	T2, T3, T7, T9, T13, T20, T25, T27
	Teachers' lack of knowledge	T8, T19
	Inefficiency in the online part	T6, T8, T12, T13, T19, T24
	Inefficiency due to systemic malfunctions	T5, T17
	Dependency on technology	T4, T5, T23

The theme of "being inefficient" has received almost the same number of views as the other theme. According to the number of opinion expressions, the codes of the theme are "the harm of online education to health, lack of equal opportunities, teachers' lack of knowledge, inefficiency in the online part, inefficiency due to systemic malfunctions, dependency on technology". The opinion of the teacher coded as T17 related to this theme and codes is given.

T17: "In the online process, the child will set up and open the computer, sometimes there is no sound from the speaker, sometimes there is a problem with the camera, sometimes the internet goes out, and sometimes we have problems with the link we use."

The views related to the evaluations of the primary school teachers about their competencies (seeing themselves as sufficient or insufficient) in implementing blended learning are given in Table 7.

Table 7. Views on Competencies in the Blended Learning Application

Themes-Codes		**Participants**
Theme-1	Reasons for seeing themselves as competent	**T1, T2, T3, T5, T6, T7, T8, T9, T10, T11, T12, T13, T16, T17, T18, T19, T20, T22, T24, T26, T27**
Theme-1 Codes	Learning through research	T1, T2, T5, T6, T7, T9, T10, T11, T13, T16, T19, T20, T26, T27
	Information exchange between teachers	T6, T26
	Keeping up with technology	T3, T8, T22
	Self-improvement	T8, T12, T16, T24
	Having received education	T17, T18
Theme-2	Reasons for seeing themselves as incompetent	**T1, T2, T4, T5, T6, T7, T9, T10, T11, T13, T14, T15, T16, T18, T19, T20, T23, T24, T25, T27**
Theme-2 Codes	Deficiencies in the first application	T1, T2, T4, T5, T11, T14, T15, T18, T20, T25
	Lack of organization	T1, T2, T6
	First encounter with Zoom	T1, T5, T6, T7, T9, T10, T13, T15, T16, T19, T24, T25, T27
	Inability to adapt to technology	T2, T6, T7, T11, T18
	Not receiving in-service training	T10, T19, T23, T25, T27

According to Table 7, while primary school teachers see themselves as competent in some aspects of implementing blended learning, they do not see themselves as competent in other aspects. Related to this, under the theme of "learning through research, information exchange between teachers, keeping up with technology, self-improvement, having received education" have been created according to the

most common responses. The opinion of the teacher coded as T19 related to this theme and codes is given below.

T19: "There were points where I saw myself competent and points where I saw myself inadequate. For instance, I used to wonder what different techniques there might be in this online education? I had researched what I could do here using games and teaching with games for those kids. I had methods that I found as a result of my research."

The codes for the theme of "reasons for seeing themselves as incompetent" according to the frequency of opinion expression are "first encounter with Zoom, deficiencies in the first application, inability to adapt to technology, not receiving in-service training, and lack of organization". The opinion of the teacher coded as T25 related to this theme and codes is given.

T25: "We met Zoom in this process. Since we did not conduct any remote education activities before, we met for the first time during the pandemic process."

The examination of the primary school teachers' views on classroom management in implementing blended learning is given in Table 8.

Table 8. Classroom Management

Themes- Codes		**Participants**
Theme-1	Issues encountered	**T1, T2, T3, T4, T5, T6, T7, T8, T9, T13, T14, T16, T17, T18, T19, T20, T21, T23, T24, T26, T27**
Theme-1 Codes	The environment at home	T1, T3, T5, T8, T13, T14, T21, T24, T27
	Individual differences of students	T19, T27
	Inadequate management by the teacher	T17
	Class level	T4, T17, T18
	Decrease in motivation	T9, T14, T20, T23
	Adaptation problem	T4, T5, T6, T23
	Lack of information regarding teacher and student	T2, T3, T7, T16
	Systemic problems	T1, T3, T8, T17, T26
Theme-2	No issues encountered	**T3, T5, T6, T7, T10, T13, T15, T16, T19, T20, T22**
Theme-2 Codes	Teachers' self-improvement	T22
	The ability to intervene in the online part	T5, T10, T13, T15, T19
	Splitting class	T3, T6, T7, T13, T16, T20

According to Table 8, while implementing blended learning, primary school teachers most often express views under the theme of "problems were experienced" in classroom management. In relation to this theme, based on the frequency of teachers' views, the codes of "the environment at home, individual differences of students, inadequate management by the teacher, class level, decrease in motivation, adaptation problem, lack of information regarding teacher and student, systemic problems" have been established. The opinion of the teacher coded as T3 related to this theme and codes is given.

T3: "I think the most negative aspect is that the atmosphere where the child is at the moment – maybe the indifference caused by a younger sibling, mom, dad, the sound of the TV, perhaps the existence of an older parent – negatively affected classroom management."

In the theme of " No issues encountered ", according to the frequency of teachers' opinion expression, the codes of "splitting class, the ability to intervene in the online part, and the teacher's self-

improvement" have been found. The opinion of the teacher coded as T13 related to this theme and codes is given.

T13: "I didn't have any problems with online education. I could open and close the student's voice whenever I wanted. I could easily give the right to speak. On my own behalf, I believe that I was teaching in a quiet environment."

The analyses related to the views of primary school teachers about the measurement tools they used in their blended learning applications are given in Table 9.

Table 9. Assessment Tools Used in Blended Learning Applications

Themes- Codes		**Participants**
Theme-1	**Alternative assessment**	**T1, T2, T5, T17, T18, T20, T22, T25**
Theme-1 Codes	Project	T2, T17, T25
	Concept map	T17
	Research	T20
	Observation	T18, T22, T25
	Performance	T1, T5
Theme-2	**Traditional Assessment**	**T1, T2, T4, T5, T6 T7, T8, T9, T11, T13, T15, T19, T20, T21, T23, T24, T25, T26, T27**
Theme-2 Codes	Question-Answer	T2, T4, T5, T7, T9, T11, T13, T15, T19, T20,T24, T25
	Tests	T4, T5, T6, T7, T11, T23, T24, T26, T27
	Textbooks	T6, T8, T23
	Dictation	T1, T7, T21
Theme-3	**Digital-supported assessment**	**T2, T3, T4, T7, T8, T10, T12, T13, T14, T17, T19, T23, T24, T26**
Theme-3 Codes	Digital tools	T3, T12, T14, T17, T23, T24, T26
	Information networks	T2, T3, T4, T7, T8, T10, T13, T17
	Games	T13, T19
	Competitions	T4

According to Table 9, when the views of primary school teachers about the assessment tools used in blended learning are examined, it is seen that the teachers most often express views under the theme of "traditional assessment". In this theme, the codes "question-answer, tests, textbooks, and dictation" are found. The opinion of the teacher coded as T15 related to this theme and codes is given.

T15: "In blended learning, I mostly used the question-answer method."

Under the theme of "digitally supported assessment", according to the frequency of primary school teachers' views, the codes "digital tools, information networks, games, competitions" are found. The opinion of the teacher coded as T17 related to this theme and codes is given. Under the theme of "alternative assessment", according to the frequency of primary school teachers' views, the codes "project, observation, performance, concept map, and research" are found.

T17: "We benefited from web-based programs. Since we have our own digital platform, we used our digital tests, and without naming brands, we used the digital platforms of other publications."

The analysis of primary school teachers' views about the problems they encountered and the solutions they suggest in the applications made with the blended learning model is given in Table 10.

Tablo 10. Problems and Suggestions for solutions

Themes-Codes	**Participants**

Theme-1	**Problems**	**T1, T2, T3, T4, T5, T7, T8, T10, T11, T13, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24, T25, T27**
Theme-1 Codes	Age group	T3, T11, T23, T25
	Parental indifference	T21, T24
	Systemic issues	T17
	First encounter problem	T10, T16
	Attention deficit	T13, T18, T24
	Negatively affecting health	T13, T17, T18
	Students' lack of experience	T7, T17, T22
	High number of siblings	T5, T8, T15, T20, T24
	Class management	T4
	Low participation	T4, T7, T19, T20
	Inequality of opportunity	T2, T3, T8, T15, T18, T19, T20, T27
	Infrastructure	T2, T4, T7, T8, T15, T16, T20, T24, T25, T27
	Foreign national students	T1, T2
Theme-2	**Solutions suggestions**	**T1, T2, T3, T4, T6, T7, T8, T9, T10, T12, T13, T14, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24, T26, T27**
Theme-2 Codes	Higher education levels	T23
	Providing teachers with technological knowledge	T22, T27
	Pilot school	T20
	Parental support	T14, T19
	Traditional education	T14, T18, T23
	In-service training	T1, T6, T10, T13, T19, T21, T22, T24
	Organizing a blended learning program	T4, T9, T12, T15, T26
	Increasing participation	T4, T6
	Strengthening the infrastructure	T2, T3, T4, T7, T8, T16, T17

According to the answers given by primary school teachers to questions about the problems they encounter and the solutions they suggest while implementing blended learning, the most expressed theme is "problems". In relation to this theme, the codes "age group, parental indifference, systemic issues, first encounter problem, attention deficit, negatively affecting health, students' lack of experience, high number of siblings, class management, low participation, inequality of opportunity, infrastructure, foreign national students" are found. The views of teacher coded as T16 regarding this theme and codes are given.

T16: "*Infrastructure problems at some points may have caused problems for some of our students in the disruption of education.*"

In the theme named "solution suggestions", the codes "higher education levels, providing teachers with technological knowledge, pilot school, parental support, traditional education, in-service training, organizing a blended learning program, increasing participation, strengthening the infrastructure" are found. The opinion of the teacher coded as T4 regarding this theme and codes is given.

T4: "*There needs to be a balance in this. How much blended learning, how much distance education, how much face-to-face education, it is important to maintain this balance. First of all, I believe that there should be face-to-face education, and then I think the order is also important.*"

The analyses regarding the views of primary school teachers about receiving in-service training related to blended learning are given in Table 11.

Table 11. Receiving In-Service Training Related to Blended Learning

	Themes	Participants
Theme-1	**I want**	**T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19, T21, T22, T23, T24, T25, T26, T27**
Theme-1 Codes	The difficulty of being a primary school teacher	T22
	Lifelong learning	T6, T17, T21
	New generation teaching model	T4, T8, T16, T25, T27
	Self-improvement	T13, T14, T16, T19, T24
	To be more productive	T5, T12
	Lack of knowledge	T5, T9, T11, T15, T18, T23, T26
	Need for technology	T2
	The likelihood of processes like pandemics repeating	T1, T7, T10
Theme-2	**I do not want**	**T20**

Except for one teacher, all primary school teachers want to receive in-service training related to blended learning. The codes for this theme, according to the frequency of expressing views, are "lack of information, self-improvement, new generation teaching model, the likelihood of processes like pandemics repeating, lifelong learning to be more productive, need for technology, and the difficulty of being a primary school teacher." The views of the teacher coded as T22 related to this theme and codes are given.

T22: "We are still not as proficient in technology as a computer teacher. Let me put it that way. Unfortunately, classroom teaching is harder than other branches, in my opinion. Therefore, I need to take it. We need to make up for our shortcomings."

DISCUSSION AND CONCLUSION

This research aims to examine the views of primary school teachers about the blended learning model implemented in primary schools during the pandemic period. Primary school teachers were interviewed to evaluate the suitability of blended learning for the primary school level. When teachers' responses were examined, the characteristics of the age group were prominent. They express that the upper classes of primary school would be more suitable for the primary school level and emphasize that readiness is important. According to the results of the Çırak Kurt, Yıldırım and Cücük (2018) study, blended learning was found to be less effective at the primary school level compared to other levels.

In terms of applying blended learning in lessons, while attention is drawn to the appropriateness of the level of primary school in terms of class participation and adaptation problems, there have also been teachers who expressed that it is abstract for primary school level but on the other hand, it helps to make the lesson concrete. Sarıtepeci and Yearsdız (2014) found that blended learning positively affects class participation in their research conducted on 9th-grade classes. Adams, Randall and Traustadóttir, (2015) found in their research conducted on university students that the participation in the class was less compared to traditional learning in the group where blended learning was applied. Studies can be conducted on the limitations of online education and face-to-face education in primary schools and the limitations of blended learning in primary schools can be determined.

When the views of primary school teachers about equal opportunity in the implementation of blended learning are taken, they draw attention to the technological device and internet infrastructure, the region where the school is located, the socio-economic situation of the students, the family structure, and the lack of information. Similar to the results of the current research, Koç-Akran (2021) also mentioned the economic dimension in their study examining the perceptions of teacher candidates for hybrid

education. In the economic dimension, they found that emphasis was placed on various factors including 'space', which refers to the physical and digital environments used for hybrid education. This focus on space includes aspects such as the cost implications of maintaining and improving these environments, the allocation of resources for their optimal use, and how these factors interplay with the financial and equipment aspects of hybrid education. Adekola, Dale and Gardiner (2017), Hiğde and Aktamış (2021), Korucu and Kabak (2020), Rasheed et al. (2020), Safford and Stinton (2016) and Xiao et. al. (2020) draw attention to the inequality in students' access to technology in blended learning and the problem of meeting financial needs in their research. Moskal, Dziuban and Hartman (2013) suggests that high quality is required for blended learning. This depends on the institutional infrastructure, student learning support mechanisms, and institutional developments. All these elements should take place within the framework of reliable institutional culture. Adequate resource investment is crucial for achieving these goals in blended learning. By providing technological tools, learning supports, and infrastructure through various projects, we can eliminate inequality of opportunity.

In the evaluation of blended learning in terms of socialization, teachers have been seen to express two-sided views, positive and negative towards socialization. However, the majority of them emphasize not being able to socialize. The reasons for not being able to socialize are that they cannot socialize from the screen, that the class culture cannot be formed, and that it causes communication problems. Ünsal (2007) suggests that in blended learning t students do not need to communicate with their friends in the online section but they need it in face-to-face education. Hiğde and Aktamış (2021) found in their research that there is a lack of communication in lessons and that blended learning does not provide interactive communication as much as face-to-face education.

Teachers who stated that blended learning has a positive effect on socialization have expressed that the online environment is more comfortable and having access to information and sharing knowledge through online chat platforms has positive effects on their communication. Similarly, Yıldırım and Vural (2016) found that blended learning facilitates information sharing and communication. Cocquyt, Zhu, Diep, De Greef and Vanwing (2019) found that blended learning, providing interactive learning environments for adults, has a positive effect on socialization. Law, Geng and Li (2019) found that students improved their social presence in blended learning environments. In schools, by making lesson durations more flexible and spread over time, blending with online education when support is needed, students' socialization situations can be increased with both face-to-face and online classes.

Regarding the impact of blended learning on academic achievement, the participant teachers mostly stated that it reduces academic achievement and the main reason for this is the inefficiency of online education and inequality of opportunity. Adams et. al. (2015) found that academic success in blended learning was lower than traditional learning. Ryan, Kaufman, Greenhouse, She and Shi (2016) found that blended learning practices blended with face-to-face education had a similar effect on students' success. Paker and Balcı (2020) found that students found face-to-face education more effective than online studies in their research.

In the current study, the majority of primary school teachers also stated that blended learning increased academic success, and the reason for this was found to be that students participate in the process and make learning easier. In a similar vein to this research result, Lim and Morris (2009) found that success and student interest are affected depending on the instructional design in blended learning. Batdı (2014) concluded that the blended learning model was more effective than face-to-face learning when he examined the research on blended learning. Owston, York and Murtha (2013) examined perceptions and achievements related to blended learning in their research. In this study, they found that high-achieving students found blended learning more interesting and learned better than traditional face-to-face education. Xu et.al. (2023) found that 63% of the studies on online and blended learning had a positive effect on students' academic performance, 19% did not have a significant effect on academic performance, and 18% had mixed effects. Pesen and Oral (2016) found that blended learning

environments increased academic achievement in prospective mathematics teachers, but did not make a difference in the academic success of prospective social sciences teachers. Teachers can use different alternative applications for more efficient classes.

When primary school teachers were requested to evaluate blended learning in terms of being efficient and inefficient, it was seen that they expressed almost very close views in both directions. However, they have expressed their views most in favor of being efficient. As efficient, they stated that advantages were provided with less number in classroom sizes during periods such as the pandemic we experienced, it is better than not receiving any education at all, and it provided the opportunity to repeat. In Uysal's (2016) research, it was found that the efficient aspects came to the fore as a result of the transfer of the flexible structure of blended learning to the environment correctly. Dağ (2011) and Meriçelli and Uluyol (2016) reached the conclusion that blended learning applications are efficient because they contain the positive aspects of face-to-face and online education. In Dikmenli and Eser-Ünaldı (2013)'s study, students want blended learning model because it provides the opportunity to access materials related to the lesson outside of school and to repeat the class materials.

Teachers who evaluated the inefficiencies of blended learning mostly emphasized opportunity inequality, inefficiency experienced online, and technology dependency codes. Rasheed et. al. (2020) drew attention to the lack of necessary infrastructure in educational institutions in their research, causing inequality of opportunity, and Adekola et. al. (2017) stated that resources and financial needs for blended learning should be identified. Türker (2021) concluded that besides the problems caused by technical impossibilities in blended learning, it was efficient in teaching Turkish for refugees by teachers teaching Turkish as a second language. By taking measures such as technological infrastructure and hardware support in the education process, efficient and inefficient aspects can be examined by continuing to work on blended learning using different methods and techniques.

When the views of primary school teachers about their competencies in blended learning are examined, it is seen that they mostly see themselves as competent. Primary school teachers who express themselves as inadequate attribute this to problems experienced in the first application, inability to adapt to technology, and not receiving in-service training. When the reasons for considering themselves sufficient are examined, it is seen that teachers have learned blended learning by their own efforts, discovered its application by researching, and followed technology and improved themselves to learn. In Sungur Alhan's (2020) research, it was found that teacher candidates generally have a positive view of blended learning. Can, Zorba and Türksoy-Işım (2022) examined the studies conducted on teacher candidates. According to the results obtained, they reached findings about the positive effects of blended learning in general in the research conducted on teacher candidates. Various educational activities can be organized for educational institutions regarding blended learning.

In blended learning applications, the majority of primary school teachers expressed that they encountered problems in classroom management. They stated that they faced problems such as the home environment of the students, problems caused by systemic issues, lack of motivation, adaptation problems, and teacher-student information deficiencies. When they stated that they did not have problems in classroom management, they mostly drew attention to the advantage brought by dividing the classes into two, stating that classroom management was not a problem and the teacher being able to intervene in the online part was expressed as a positive aspect for the learning environment in terms of classroom management. Naaj, Nachouki and Ankit (2012) reached the conclusion that students were generally satisfied with blended learning environments. Dikmenli and Eser-Ünaldı (2013) stated that although students generally prefer blended learning, they expressed having technical problems as a situation they were not pleased with. According to the research by Sürmelioğlu and Seferoğlu (2018), blended learning environments should be managed by taking into account the teacher's knowledge,

experience, openness to learning, and the tendencies of the students for teaching processes. By considering individual differences of students in blended teaching, educational planning can be made.

While primary school teachers mostly prefer traditional assessment tools in blended learning applications, they also prefer to use digital-supported assessment tools and alternative assessment tools. In Balaman and Tüysüz's (2011) research, while traditional assessment methods were used more in face-to-face education, using digital-supported assessment in blended learning and being able to evaluate and control their own works increased their academic success. An educational process where students can control their own development can be created with assessment tools developed in accordance with blended learning.

Primary school teachers emphasized more on infrastructure inadequacy, inequality of opportunity, the large number of siblings, age groups, and low participation regarding the problems they encountered in blended learning applications. As a solution suggestion, they stated the strengthening of the infrastructure and in-service training supports, and the arrangement of blended learning programs. Donnelly (2010) pointed out the importance of planning blended instruction by harmonizing the transitions between online and face-to-face educations well in blended learning applications. Erbaş (2021) stated that the online part of blended learning should be organized and planned in primary reading and writing teaching applications. Kumaş and Kan (2022), on the other hand, encountered problems with the learning environment, social psychological effects, and infrastructure problems in their work on the hybrid education model. This research is limited to the determined central districts. Future research can be conducted in different settlements and the results can be compared.

Due to the inadequate knowledge of primary school teachers, their desire to improve themselves, and being a new generation teaching model, almost all of them wanted to receive in-service training regarding the blended teaching model. Erbaş (2021) concludes that for the use of distance education in primary reading and writing teaching in primary school, the blended learning model should be used and technological pedagogical knowledge proficiency is necessary within the scope of educational activities. Alam, Albozeidi, Al-Hawamdeh and Ahmad (2022) and Kazu and Özercan (2023) concluded in their findings that the in-service training received helps blended learning applications and teachers improving themselves in the field of technology would increase the quality of blended learning environments. In-service trainings can be arranged according to the needs of teachers related to blended learning.

The current research scrutinized blended teaching practices through the lens of teacher perspectives, revealing several significant findings. It was observed that the implementation of this teaching method for 1st and 2nd-grade primary school students is fraught with challenges. Unequal access to technology, stemming from varying socio-economic backgrounds, further complicates its widespread adoption. In the realm of online learning, which forms a part of blended teaching, effective classroom management and adequate socialization are found to be lacking. Nonetheless, the inherent flexibility of blended teaching allows for educational continuity during unfavorable circumstances. Despite these hurdles, teachers have managed to learn and enhance their abilities within blended learning environments, primarily through self-guided efforts. However, this study underscores the potential to achieve increased productivity. By addressing the existing gaps through targeted in-service training, investing in the necessary infrastructure, and securing adequate financial resources, the effectiveness of blended teaching could be substantially improved.

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REFERENCES

Acelajado, M. J. (2011). Blended learning: a strategy for improving the mathematics achievement of students in a bridging program. *The Electronic Journal of Mathematics and Technology*. *5*(3), 342-351. Retrieved from https://eds.p.ebscohost.com/eds/pdfviewer/pdfviewer?vid=0&sid=9982bd8e-ef80-4143-8989-15382fc5e6eb%40redis

Adams, A., Randall, S., & Traustadóttir, T. (2015). A tale of two sections: An experiment to compare the effectiveness of a hybrid versus a traditional lecture format in introductory microbiology. *CBE Life Sciences Education*, *14*, 1-8. https://doi.org/10.1187/cbe.14-08-0118

Adekola, J., Dale, V. H., & Gardiner, K. (2017). Development of an institutional framework to guide transitions into enhanced blended learning in higher education. *Research in Learning Technology*, 25, 1-16. https://doi.org/10.25304/rlt.v25.1973

Akgündüz, D. (2012). Fen eğitiminde harmanlanmış öğrenme ve sosyal medya destekli öğrenmenin öğrencilerin başarı, motivasyon, tutum ve kendi kendine öğrenme becerilerine etkisi [The effect of blended learning and social media-supported learning on the students' academic achievement, motivation, attitude and self-learning skill in science education] (Doctoral dissertation). Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi/ (Thesis number: 349932)

Alam, S., Albozeidi, H. F., Al-Hawamdeh, B. O. S., & Ahmad, F. (2022). Practice and principle of blended learning in ESL/EFL pedagogy: strategies, techniques and challenges. *International Journal of Emerging Technologies in Learning (Online)*, *17*(11), 225. https://doi.org/10.3991/ijet.v17i11.29901

Alebaikan, R., & Troudi, S. (2010). Blended learning in Saudi universities: challenges and perspectives. *ALT-J*, *18*(1), 49-59. https://doi.org/10.1080/09687761003657614

Archee, R. (2015). Is blended learning making us stupid, too? *Open Journal of Social Sciences*, 3, 65-70. http://dx.doi.org/10.4236/jss.2015.39010

Balaman, F. & Tüysüz, C. (2011). Harmanlanmış öğrenme modelinin 7. Sınıf öğrencilerinin fen ve teknoloji dersindeki başarılarına, tutumlarına ve motivasyonlarına etkisinin incelenmesi [Researchıng the effect of blended learnıng model on the scıence and technology course success, attıtudes and motıvatıons of 7th class students]. *Batı Anadolu Eğitim Bilimleri Dergisi*, *2* (4), 75-90. https://dergipark.org.tr/tr/pub/baebd/issue/3339/46232

Batdı, V. (2014). Harmanlanmış öğrenme ortamlarının öğrencilerin akademik başarılarına etkisi: bir meta-analiz çalışması [The effect of blended learning environments on students' academic achievement: a meta-analysis study]. *Çankırı Karatekin Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *5*(1), 287-302. https://dergipark.org.tr/tr/pub/jiss/issue/25892/272867

Can, H. C., Zorba, E., & Türksoy-Işım, A. (2022). Öğretmen eğitiminde harmanlanmiş öğrenme modelinin kullanildiği lisansüstü tez çalişmalarinin incelenmesi [Investigation of graduate thesis studies using blended learning model in teacher education]. *Trakya Eğitim Dergisi*, *12*(3), 1656-1672. https://doi.org/10.24315/tred.1029061

Çardak, Ç. S. (2012). Harmanlanmış öğrenme sürecinde öğrencilerin etkileşimlerinin ve öğrenme düzeylerinin incelenmesi [The investigations of students interactions and learning levels at blended learning] (Doctoral dissertation). Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi (Thesis number: 312608)

Chen, W.T. (2022) How to optimize the students' engagement in blended learning. *Open Access Library Journal*, *9*, 1-15. https://doi.org/10.4236/oalib.1108399

Cheung, S. K., & Wang, F. L. (2019). Blended learning in practice: guest editorial. *Journal of Computing in Higher Education*, *31*(2), 229-232. https://doi.org/10.1007/s12528-019-09229-8

Çırak Kurt, S., Yıldırım, İ., & Cücük, E. (2018). Harmanlanmış öğrenmenin akademik başarı üzerine etkisi: Bir meta-analiz çalışması [The Effects of blended learning on student achievement: a metaanalysis

study]. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, *33*(3), 776-802. https://doi.org/10.16986/HUJE.2017034685

Cocquyt, C., Zhu, C., Diep, A. N., De Greef, M., & Vanwing, T. (2019). Examining the role of learning support in blended learning for adults' social inclusion and social capital. *Computers & Education*, *142*, 103610. https://doi.org/10.1016/j.compedu.2019.103610

Creswell, J. W. (2019). Nitel araştırmacılar için 30 temel beceri [30 essential skills for the qualitative researcher] (2nd Ed.). H. Özcan (Trans.). Ankara: Anı Yayıncılık (Original work published 2016)

Creswell, J. W. (2021). Nitel araştırma yöntemleri & Beş yaklaşıma göre nitel araştırma ve araştırma deseni [Qualitative inquiry & research design choosing among five approaches] (6th ed.). M. Bütün & S. B. Demir (Trans. Eds). Siyasal Publishing. (Original work published 2013). Retrieved from https://www.turcademy.com/tr

Dağ, F. (2011). Harmanlanmiş karma öğrenme ortamlari ve tasarımına ilişkin öneriler [Blended learning environments and suggesstions for blended learning design]. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, *12*(2), 73-97. https://dergipark.org.tr/tr/pub/kefad/issue/59495/855161

Dikmenli, Y. & Eser-Ünaldı, Ü. (2013). Harmanlanmış öğrenme ve sanal sınıfa dönük öğrenci görüşleri [students' views on blended learning and virtual classroom]. *Amasya Üniversitesi Eğitim Fakültesi Dergisi*, *2*(2), 326-347. Retrieved from https://dergipark.org.tr/en/pub/amauefd/issue/1729/21202

Donnelly, R. (2010). Harmonizing technology with interaction in blended problem-based learning. Computers & Education, 54(2), 350-359. https://doi.org/10.1016/j.compedu.2009.08.012

Draffan, E. A., & Rainger, P. (2006). A model for the identification of challenges to blended learning. *ALT-J*, *14*(1), 55-67. https://doi.org/10.1080/09687760500479787

El Mansour, B., & Mupinga, D.M. (2007). Students' positive and negative experiences in hybrid and online classes. *College Student Journal, 41*(1), 242–248. https://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=24628953&lang=tr&site=eds-live

Erbaş, Y. H. (2021). Covid-19 salgını döneminde eğitim: ilkokuma yazma öğretiminde karşılaşılan sorunlar ve çözüm önerileri [Education during the Covid-19 pandemic: problems encountered in reading and writing ınstruction and suggested solutions]. *Ana Dili Eğitimi Dergisi*, *9* (2), 360-380. https://doi.org/10.16916/aded.851724

Eunjoo, O. H. (2006). Current practices in blended instruction (Doctoral dissertation). Retrieved from https://trace.tennessee.edu/utk_graddiss/1838/

Geçer, A. (2013). Lecturer-student communication in blended learning environments. *Educational Sciences: Theory and Practice*, *13*(1), 362-367. Retrieved from https://eric.ed.gov/?id=EJ1016744

George-Walker, L. D., & Keeffe, M. (2010). Self-determined blended learning: a case study of blended learning design. *Higher Education Research & Development*, *29*(1), 1-13. https://doi.org/10.1080/07294360903277380

Gülbahar, Y., Kalelioğlu, F., & Afacan Adanır, G. (2020). Harmanlanmış öğrenme [Blended learning]. Ankara: Pegem Akademi Yayıncılık. [e-book version] Retrieved from https://www.turcademy.com/tr

Gürdoğan, M. (2019). Harmanlanmış öğrenme uygulamalarının sosyal öğrenme ortamlarına aktarımının incelenmesi [Examination of the transfer of blended learning applications to social learning environments] (Doctoral dissertation). Retrieved from https://tez.yok.gov.tr/UlusalTezMerkezi/ (Thesis number: 598501)

Güvercin Seçkin, G., & Şen Zeytun, A. (2023). Bir analoji bağlamında dünden bugüne harmanlanmış öğrenme [blended learnıng from past to present by an analogy]. *Trakya Eğitim Dergisi*, *13*(2), 1451-1470. https://doi.org/10.24315/tred.1139094

Hashemi, A. & Sı Na, K. (2020). The effects of using blended learning in teaching and learning english: A review of literature. *The Eurasia Proceedings of Educational and Social Sciences*, *18*, 173-179. Retrieved from http://www.epess.net/tr/pub/issue/58018/841874

Hiğde, E., & Aktamış, H. (2021). The investigation of the effectiveness of the problem-based blended learning environment and students' attitudes. *Manisa Celal Bayar University Journal of the Faculty of Education*, *9*(1), 81-103. https://doi.org/10.52826/mcbuefd.884752

Hill, J., & Smith, K. (2023). Visions of blended learning: identifying the challenges and opportunities in shaping institutional approaches to blended learning in higher education. *Technology, Pedagogy and Education*, *32*(3), 289-303. https://doi.org/10.1080/1475939X.2023.2176916

Jeffrey, L. M., Milne, J., Suddaby. G., & Higgins, A. (2014). Blended learning: How teachers balance the blend of online and classroom components. *Journal of Information Technology Education: Research*,13,121-140. http://www.jite.org/documents/Vol13/JITEv13ResearchP121-140Jeffrey0460.pdf

Kazu, H. & Özercan, M. G. (2023). Hibrit eğitimle yapılan ilk okuma yazma öğretiminin değerlendirilmesi [Evaluation of ınitial literacy teaching with hybrid education]. *Manisa Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, *21* (1), 33-60. https://doi.org/10.18026/cbayarsos.1055654

Kember, D., McNaught, C., Chong, F. C., Lam, P., & Cheng, K. F. (2010). Understanding the ways in which design features of educational websites impact upon student learning outcomes in blended learning environments. *Computers & Education*, *55*(3), 1183-1192. https://doi.org/10.1016/j.compedu.2010.05.015

Khan, S. (2015). Blended learning vs traditional classroom settings. *International Journal of Nursing, 2*(1), 158-161. http://dx.doi.org/DOI: 10.15640/ijn.v2n1a17

Koç-Akran, S. (2021). Öğretmen adaylarının "hibrit eğitim" kavramına ilişkin algılarının belirlenmesi: Bir metafor analizi çalışması [Determining teacher candidates' perceptions on the concept of "hybrid education": a metaphor analysis study]. *Uluslararası Beşeri Bilimler ve Eğitim Dergisi*, *7*(16), 432-463. Retrieved from https://dergipark.org.tr/en/pub/ijhe/issue/65605/988405

Korucu, A. & Kabak, K. (2020). Türkiye'de hibrit öğrenme uygulamaları ve etkileri: bir meta analiz çalışması [Hybrid Learning Practices and Effects in Turkey: A Meta-Analysis Study]. *Bilgi ve İletişim Teknolojileri Dergisi*, *2(*2), 88-112. Retrieved from https://dergipark.org.tr/tr/pub/bited/issue/58421/803227

Kumaş, A., & Kan, S. (2022). Hibrit eğitim sürecinde fen bilimleri öğretmenlerinin öğretimsel uygulamalara yönelik görüşleri [Science teachers' views on educational practices in the hybrid education process]. *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, *56* (56), 1-21. https://doi.org/10.15285/maruaebd.1038137

Kuo, Y. C., Belland, B. R., Schroder, K. E., & Walker, A. E. (2014). K-12 teachers' perceptions of and their satisfaction with interaction type in blended learning environments. *Distance Education*, *35* (3), 360-381. https://doi.org/10.1080/01587919.2015.955265

Landis, J. R. & Koch, G. G. (1977) The measurement of observer agreement for categorical data. Biometrics. *33* (1), 159-174. https://doi.org/10.2307/2529310

Law, K. M., Geng, S., & Li, T. (2019). Student enrollment, motivation and learning performance in a blended learning environment: The mediating effects of social, teaching, and cognitive presence. *Computers & Education*, *136*, 1-12. https://doi.org/10.1016/j.compedu.2019.02.021

Lim, D. H., & Morris, M. L. (2009). Learner and instructional factors influencing learning outcomes within a blended learning environment. *Journal of Educational Technology & Society*, *12*(4), 282-293. Retrieved from https://www.jstor.org/stable/jeductechsoci.12.4.282

Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Newbury Park, CA: Sage Publications.

Lincoln, Y. S., & Guba, E. G. (1986). But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. New Directions for Evaluation, *30*, 73-84. https://doi.org/ 10.1002/ev.1427

MEB (Milli Eğitim Bakanlığı [Republic of Türkiye Ministry of national education]), 28892082-869-E.5497866 (13.03.2020). https://maol.meb.gov.tr/meb_iys_dosyalar/2020_03/16140039_idari_izin.pdf

MEB (Milli Eğitim Bakanlığı [Republic of Türkiye Ministry of national education]). (2021). 18 eylül'e kadar sürecek uzaktan eğitim döneminin yol haritası [Road map of the distance education period that will continue until September 18]. http://www.meb.gov.tr/18-eylule-kadar-surecek-uzaktan-egitim-donemininyol-haritasi/haber/21499/tr

Meriçelli, M. & Uluyol, Ç. (2016). Web ve mobil destekli harmanlanmış öğrenme ortamlarının öğrencilerin motivasyon ve akademik başarılarına etkisi [The effect of web supported and mobile supported blended learning environment on students academic achievement and motivation]. *International Periodical for the Languages, Literature and History of Turkish or Turkic*, *11*(9), 1308- 2140. http://dx.doi.org/10.7827/TurkishStudies.9781

Merriam, S. B. (2015). Nitel araştırma desen ve uygulama için bir rehber [Qualitative research a guide to design and implementation]. S. Turan (Trans. Ed.). Nobel publishing. (Original work 3rd ed.)

Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. Journal of Counseling Psychology, *52*(2), 250-260. https://doi.org/10.1037/0022-0167.52.2.250

Moskal, P., Dziuban, C., & Hartman, J. (2013). Blended learning: A dangerous idea?. *The Internet and Higher Education*, *18*, 15-23. https://doi.org/10.1016/j.iheduc.2012.12.001

Naaj, M.A., Nachouki, M., & Ankit, A. (2012). Evaluating student satisfaction with blended learning in a gender-segregated environment. *Journal of Information Technology Education: Research*, *11*(1), 185-200. Retrieved from https://eric.ed.gov/?id=EJ979137

Owston, R., York, D., & Murtha, S. (2013). Student perceptions and achievement in a university blended learning strategic initiative. *The internet and Higher Education*, *18*, 38-46. https://doi.org/10.1016/j.iheduc.2012.12.003

Paker, T., & Balcı, E. (2020). A study on the experiences of students and instructors in blended instruction and learning in an English preparatory school. *International Online Journal of Education and Teaching (IOJET)*, *7*(4). 1709-1729. Retrieved from http://iojet.org/index.php/IOJET/article/view/1018

Patton, M. Q. (2018). *Nitel araştırma ve değerlendirme yöntemleri* [Qualitative research and evaluation methods] (2nd ed). M. Bütün ve S. B. Demir (Trans. Ed.). Pegem A. (Original work published 3rd ed.)

Pesen, A., & Oral, B. (2016). Harmanlanmiş öğrenme yaklaşiminin öğretmen adaylarinin akademik başarisina ve güdülenme düzeyine etkisi [The effect of blended learning approach on academic success and motivation of teacher candidates]. *Elektronik Sosyal Bilimler Dergisi*, *15*(58). https://doi.org/10.17755/esosder.85356

Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. Computers & Education, *144*, 103701.

Riel, J., Lawless, K. A., & Brown, S. W. (2016). Listening to the teachers: Using weekly online teacher logs for ROPD to identify teachers' persistent challenges when implementing a blended learning curriculum. *Journal of Online Learning Research*, *2*(2), 169-200. https://ssrn.com/abstract=2820338

Ryan, S., Kaufman, J., Greenhouse, J., She, R., & Shi, J. (2016). The effectiveness of blended online learning courses at the community college level. *Community College Journal of Research and Practice*, *40*(4), 285-298. https://doi.org/10.1080/10668926.2015.1044584

Saeheng, P. (2017). A study of e-learning, blended learning, and traditional teaching methods to motivate autonomous learning in English reading comprehension of Thais learners. *Indonesian*

Journal of English Language Teaching and Applied Linguistics, *2*(1), 1-20. http://dx.doi.org/10.21093/ijeltal.v2i1.36

Safford, K., & Stinton, J. (2016). Barriers to blended digital distance vocational learning for non-traditional students. *British Journal of Educational Technology*, *47*(1), 135-150. https://doi.org/10.1111/bjet.12222

Sarıtepeci, M., & Yearsdız, H. (2014). Harmanlanmış öğrenme ortamlarının öğrencilerin derse katılım ve derse karşı motivasyonları üzerine etkisinin incelenmesi [The effect of blended learning environments on students' engagement to course and motivation toward the course]. *Journal of Kirsehir Education Faculty*, *15*(1). Retrieved from https://dergipark.org.tr/tr/pub/kefad/issue/59467/854526

Schunk, D. H. (2014). Öğrenme teorileri eğitimsel bir bakışla [Learning theories an educational paerspective] (3 rd.). M. Şahin (Trans. Eds.). Nobel Publishing. (Original work 2008, 5th ed.)

Sungur Alhan, S. (2020). Harmanlanmış öğrenme ortamına yönelik fen bilimleri öğretmen adaylarının görüşleri [Pre-Service Science Teachers' Views Towards Blended Learning Environment]. *Erzincan Üniversitesi Eğitim Fakültesi Dergisi*, *22*(2), 397-414. https://doi.org/10.17556/erziefd.633189

Sürmelioğlu, Y., & Seferoğlu, S. S. (2018). Harmanlanmış öğrenmenin gerçekleştirildiği çevrimiçi öğrenme araçlarına yönelik bir inceleme [A review of online learning tools with blended learning]. In. N. Akpınar-Dellal & Ö. Yearsdız (Eds.), Eğitim, gençlik ve gelecek Education [Youth and future], (497-509). Düsseldorf, Germany: Lambert.

Türker, M. S. (2021). Türkçeyi ikinci/yabanci dil olarak öğreten öğretmenlerin harmanlanmiş öğrenme ortamlari ile ilgili görüşlerinin incelenmesi [An investigation of the opinions of teachers who teach Turkish as a second/foreign language about blended learning environments]. *Uluslararası Türkçe Edebiyat Kültür Eğitim (TEKE) Dergisi*, *10*(3), 1049-1069. http://dx.doi.org/10.7884/teke.5277

Uluyol, Ç., & Karadeniz, Ş. (2009). Bir harmanlanmış öğrenme ortamı örneği, öğrenci başarısı ve görüşleri [An example on blended learning environment: student achievement and perceptions]. *Yüzüncü Years Üniversitesi Eğitim Fakültesi Dergisi*, *6* (1), 60-84. Retrieved from https://dergipark.org.tr/tr/pub/yyuefd/issue/13711/165995

Ünsal, H. (2007). Harmanlanmış öğrenme etkinliğinin çoklu düzeyde değerlendirilmesi [Evaluation of blended learning activity on multiple levels] (Doctoral dissertation). https://tez.yok.gov.tr/UlusalTezMerkezi/ (Thesis number: 190960)

Ünsal, H. (2010). Yeni bir öğrenme yaklaşımı: harmanlanmış öğrenme [A new learning approach: blended learning]. *Milli Eğitim Dergisi*, *40* (185), 130-137. Retrieved from https://dergipark.org.tr/tr/pub/milliegitim/issue/36199/407092

Uysal, Ö. (2016). Harmanlanmış öğrenme ortamında proje tabanlı öğrenmenin gerçekleştirilmesi [Project-based learning in a blended learning environment]. Açıköğretim Uygulamaları ve Araştırmaları Dergisi, *2*(2), 89-113. Retrieved from https://dergipark.org.tr/en/pub/auad/issue/34017/376903

Waha, B., & Davis, K. (2014). University students' perspective on blended learning. *Journal of Higher Education Policy and Management*, *36*(2), 172-182. http://dx.doi.org/10.1080/1360080X.2014.884677

Wong, R. (2022). Basis psychological needs of students in blended learning. *Interactive Learning Environments*, *30*(6), 984-998. https://doi.org/10.1080/10494820.2019.1703010

Xiao, J., Sun-Lin, H. Z., Lin, T. H., Li, M., Pan, Z., & Cheng, H. C. (2020). What makes learners a good fit for hybrid learning? Learning competences as predictors of experience and satisfaction in hybrid

learning space. *British Journal of Educational Technology*, *51*(4), 1203-1219. https://doi.org/10.1111/bjet.12949

Xu, Z., Zhao, Y., Liew, J., Zhou, X., & Kogut, A. (2023). Synthesizing research evidence on self-regulated learning and academic achievement in online and blended learning environments: A scoping review. *Educational Research Review*, 100510. https://doi.org/10.1016/j.edurev.2023.100510

Yaman, B. (2021). Covid-19 Pandemisi Sürecinde Türkiye ve Çin'de uzaktan eğitim süreç ve uygulamalarının incelenmesi [Examining the distance education processes and practices in turkey and china during covid-19 pandemic]. OPUS International Journal of Society Researches, Pandemi Özel Sayısı , 3298-3308 . https://doi.org/10.26466/opus.857131

Yen, J. C., & Lee, C. Y. (2010). Exploring problem solving patterns and their impact on learning achievement in a blended learning environment. *Computers & Education*, *56* (1), 138–145. https://doi.org/10.1016/j.compedu.2010.08.012

Yıldırım, A. & Şimşek, H. (2008). Sosyal bilimlerde nitel araştırma yöntemleri [Qualitative research methods in the social sciences] (5th ed.). Seçkin.

Yıldırım, İ., & Vural, Ö. F. (2016). Matematik öğretimine entegre edilmiş harmanlanmış öğrenme süreci hakkındaki öğrenci görüşleri [Students' Views about Blended Learning Process Integrated to Mathematics Education]. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, *17*(2), 1-15. https://dergipark.org.tr/en/pub/kefad/issue/59426/853554

Yolcu, H. (2015). Harmanlanmış (karma) öğrenme ve uygulama esasları [Blended learning and its applications basics], *The Journal of Academic Social Science Studies*, *33*, 255-260. https://doi.org/10.9761/JASSS2767

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