# TEACHERS' READINESS FOR BLENDED LEARNING,THEIR REASONS, CHALLENGES, AND SUGGESTIONS FOR PRACTISING BLENDED LEARNING

**Dr. Aysegul LIMAN KABAN**

ORCID: 0000-0003-3813-2888
Faculty of Education
Bahcesehir University
Istanbul, TURKIYE

**Dr. Esra YATAGANBABA**

ORCID: 0000-0002-1501-7070
School of Foreign Languages
Ege University
Izmir, TURKIYE

**Dr. Alev ATES COBANOGLU**

ORCID: 0000-0002-8319-9822
Faculty of Education
Ege University
Izmir, TURKIYE

**Dr. Mehmet KOKOC**

ORCID: 0000-0002-1347-8033
School of Applied Sciences
Trabzon University
Trabzon, TURKIYE

## ABSTRACT

This study aims to understand the experiences of Turkish teachers in blended learning, the challenges they encountered, and their recommendations in this regard. The authors adapted the Blended Teaching Readiness Instrument (BTRI) (Archibald et al., 2021) to Turkish. Secondly, the reasons, challenges, and suggestions of teachers regarding blended learning were investigated. A total of 325 Turkish teachers were selected as the participant group in this survey. A criterion purposeful sampling method was used in the data collection process. The statistical analysis led to the conclusion that the BTRI, which was translated into Turkish, is a valid and reliable tool for measuring teachers' levels of readiness for blended learning in Turkiye and it can also be used to gauge the readiness of teachers. ort he qualitative aspect, inductive content analysis was used for analyzing open-ended questions of the instrument. The study both served as a reflection of Turkish teachers' positive and negative experiences regarding blended learning practices and a scale adaptation study for measuring the blended teaching readiness of Turkish teachers. It is considered that the results can help both pre-service and in-service teachers to be sensitive toward their blended teaching competencies. This study also has the potential for informing teacher education departments to equip prospective teachers with required disciplinary knowledge along with digital competencies.

**Keywords:** Blended learning, blended teaching, blended teaching readiness, instrument adaptation, teacher.

## INTRODUCTION

In the educational technology area, blended learning has been labelled the "new normal" (Norberg et al., 2011) or the "new traditional model" (Ross & Gage, 2006). Despite the ambiguity surrounding its description, Graham (2013) defined blended learning as an instructional technique that combines traditional classroom methods with online digital methods. It necessitates both the teacher's and the student's physical presence, as well as some student control over time, setting, track, or pace (Huang, Lanqin, & Haisen 2009). In a recent definition of blended learning, it is referred to as "an instructional design approach which integrates online and/or virtual learning with face-to-face learning by decreasing seat-time in class and increasing out-door learning activities to facilitate learning from not just the teacher but from online learning communities as well." (Ates-Cobanoglu, 2020). Recently, Graham (2022) suggested a parsimonious definition of blended learning as the strategic combination of online and in-person learning. Online learning technology integration into face-to-face instruction has sparked a lot of interest and opened many research opportunities over the years. Due to its perceived efficiency in offering flexible, timely, and ongoing learning, blended learning is now considered the most effective and popular style of instruction used by educational institutions.

In a global context, the use of blended learning in classes has been investigated by many researchers. Graham (2022) noted that the physical layer which refers to modality/ media and pedagogical layer which refers to method that directly affects student learning are the key components of blended learning design. Herein, the teacher orchestrates the pedagogical aspect of blended learning which is critical of the success of a blended learning-teaching practice. As Wang et al. (2021) found out the teachers' ability and students' ability preparation are reported as the largest obstacles in effective blended learning practices. However, there is a gap in both academic studies and teacher education. Especially, the studies that focus on the blended teaching readiness of teachers are limited (Balci, 2017; Kosar, 2016; Kirmizi & Yapici, 2019; Rianto, 2022). Although these studies are significant in terms of providing positive perceptions of blended learning from teachers and learners, they are limited in terms of the number of accessed participants, their focus on affordances, and model restrictions. Moreover, Smith and Hill (2019) reviewed 97 articles about blended learning practices in higher education and drew conclusions on the gaps that blended learning is not yet fully embedded in higher education.

Archibald et al. (2021) implied that preparing pre-service teachers and in-service teachers for blended learning is necessary, nonetheless, most departments lack such kind of training. The authors argued that to provide necessary professional development activities for teachers, revealing the readiness levels of teachers can be a good starting point for fulfilling blended teaching requirements. However, present Turkish instruments for measuring blended teaching readiness of staff/teachers are relatively scarce. For e.g. Hosgorur and Adnan (2018) adapted Chi's (2015) readiness to teach online survey into the Turkish context for online teaching readiness of staff. Since Chi's (2015) survey is not a scale, statistically the researchers only can see descriptive results regarding staff readiness. On teachers blended/ e-learning readiness, Baran and Ozen (2019) adapted Hung's (2016) teacher readiness for online learning measure for teachers, and Polat et al. (2022) developed an e-learning readiness scale for K-12 teachers. Therefore, the present study is considered to help fill a gap in blended teaching readiness measurement studies.

By taking these research gaps into consideration, this study involved both Turkish adaptation of the Blended Teaching Readiness Instrument (BTRI) and an examination of the Turkish teachers' blended teaching experiences. To this end, the following research questions were investigated:

1. What are the statistical results of the adapted BTRI in terms of the validity and reliability of the scale?
2. What are the teachers' reasons for practicing blended learning in their courses?
3. What are the teachers' perceived challenges they faced during their blended courses?

4. What are the teachers' perceived advantages of their blended courses?
5. What suggestions do the teachers give to improve blended courses?

## METHOD

This paper uses quantitative techniques ort he scale adaptation phase and also qualitative techniques to investigate the perceptions and experiences of Turkish teachers for blended learning in K-12 and higher education contexts (Creswell, 2011). Also, this study aimed to put forward teachers' suggestions and the problems they encountered in applying a blended learning model.

## Participants

The study group consisted of 325 Turkish teachers in the academic year 2021-2022 who participated in this study. In this research, criterion purposeful sampling was applied and the teachers who are experienced in blended learning in Turkiye were chosen as participants. An online form was shared online through social media such as Twitter, Facebook, Instagram, and WhatsApp groups. The survey included a consent form, a section for demographics and qualitative survey questions. 180 teachers are female (55%) and 145 of them (45%) are male in our sampling.

## Data Collection and Analysis

### Blended Teaching Readiness Instrument (BTRI)

The data were collected via the Turkish version of the Blended Teaching Readiness Instrument (BTRI) which is obtained in the present study. Before starting the study, the authors got permission from Douglas E. Archibald via e-mail to translate the Blended Teaching Readiness Scale into Turkish. The BTRI comprises five sections, one for each of the four skills and one for the Dispositions. Apart from Online Integration, which includes 11, each part has eight statements. On a scale ranging from 1 to 6, participants rate the accuracy of each item, with "1" indicating very limited competence or agreement and "6" indicating considerable competence or agreement. Participants indicate to what extent they agree with statements. It takes approximately 15 minutes to complete the whole survey. The online form was shared with the participants through social media (such as Twitter, Facebook, Instagram, and WhatsApp groups).

### Language Adaptation Process

The Blended Teaching Readiness Instrument (BTRI), which is used in the current study, was used to collect the data. BTRI is a competency framework designed to assist researchers and teachers with the purpose of determining the readiness of teachers for blended learning (Archibald et al., 2021). Besides being publicly available, it dwells solely on blended teaching. In the process of BTRI adaptation to Turkish, the following steps suggested by Hambleton and Kanjee (1993) as well as Hambleton and Bollwark (1991) were followed: (1) Translating items from the original language to the native/target language, (2) Determining the equivalence of the items in the original form and the draft form, (3) Determining the validity and reliability of the obtained form in Turkish.

In translating the scale items from the source language to the target language, two EFL instructors from Ege University and one from Bahcesehir University School of Foreign Languages were designated as translators. Three translators independently interpreted the scale's original language into Turkish. The Single Translation Method, one of the judicial techniques, was utilized to test the items' equivalency using both judicial and

statistical techniques (Hambleton & Bollwark, 1991). Another expert group was formed to prepare a suitable draft form for the culture to which the scale would be adapted. This expert group analyzed the words, concepts, and expressions used in initial Turkish translations. For this purpose, a group of three experts consisting of one instructional technology expert particularly studying blended learning and two English language experts.

The form was also examined by a Turkish language specialist. The applicability and understandability of it were then tested on 5 graduate students in the Ege University program for computer education and instructional technology. Additionally, the students' suggested improvements were taken into consideration.

## Validity and Reliability

To determine the reliability and validity of translated Turkish scale in Turkiye, some psychometric features such as construct validity (exploratory and confirmatory factor analysis) and internal consistency (Cronbach's Alpha) were tested (Buyukozturk, 2009). Before exploratory factor analysis (EFA), Kaiser-Mayer-Oklin (KMO) test and Barlet Sphericity test were implemented to determine whether data were applicable for factor analysis. EFA was conducted by using Principal Components Analysis and Varimax Vertical Rotation Technique. Within the scope of the study, the data were collected from teachers working in different branches and the validity and reliability of the scale in the sample of teachers were tested.

## Data Analysis

Inductive content analysis techniques were used to analyze the qualitative data (Miles & Huberman, 1994). We each worked on the coding system separately before discussing the similarities and differences to increase credibility (Patton, 2015). The following phase involved writing a codebook by considering the relevant literature and our research questions. Additionally, as Creswell (2011) advised, we double-coded the qualitative data to eliminate superfluous or redundant codes and combine our final codes into themes. The themes were verified and confirmed by two independent researchers during this process. Inter-coder reliability was calculated as 0.86 percent. Finally, the themes and codes were organized in tables to describe the findings.

## FINDINGS

### What Are the Statistical Results of The Adapted BTRI In Terms of The Validity and Reliability of The Scale?

The purpose of this study was to adapt the BITRI developed by Archibald et al. (2021) into Turkish. To examine factorial structure of the BITRI, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used in the study. A total of 325 K12 teachers from Turkiye participated in the study. Principal Axis Factoring was preferred as the factoring method for EFA. The K1 eigenvalue method proposed by Kaiser (1960) was used to decide on the number of factors. Since it was determined that there was a relationship between the factors due to the structure of the original scale, it was run with the Oblimin technique as the rotation technique. For EFA, 247 participants were piloted. As a result of the EFA performed, it was determined that two items were found to be overlapping. The factor structure and factor loadings of the items, which emerged according to the EFA results after the related items were removed, are presented in Table 1.

<p style="text-align:center"><strong>Table 1.</strong> Factor Loadings</p>

| Items | 1<br>Dispositions | 2<br>Online Integration | 3<br>Data Practices | 4<br>Personalization | 5<br>Online Interaction |
|---|---|---|---|---|---|
| D6 | 0.914 | | | | |
| D7 | 0.851 | | | | |
| D4 | 0.836 | | | | |
| D5 | 0.825 | | | | |
| D9 | 0.820 | | | | |
| D8 | 0.807 | | | | |
| D10 | 0.752 | | | | |
| D3 | 0.748 | | | | |
| D2 | 0.649 | | | | |
| D11 | 0.648 | | | | |
| D1 | 0.643 | | | | |
| OIM7 | | 0.880 | | | |
| OIM4 | | 0.862 | | | |
| OIM2 | | 0.843 | | | |
| OIM5 | | 0.828 | | | |
| OIM1 | | 0.792 | | | |
| OIM8 | | 0.751 | | | |
| OIM6 | | 0.733 | | | |
| OIM3 | | 0.697 | | | |
| DP4 | | | 0.880 | | |
| DP5 | | | 0.816 | | |
| DP3 | | | 0.744 | | |
| DP8 | | | 0.741 | | |
| DP7 | | | 0.685 | | |
| DP2 | | | 0.654 | | |
| DP1 | | | 0.622 | | |
| P5 | | | | 0.744 | |
| P6 | | | | 0.737 | |
| P7 | | | | 0.727 | |
| P2 | | | | 0.722 | |
| P4 | | | | 0.621 | |
| P3 | | | | 0.610 | |
| P1 | | | | 0.601 | |
| P8 | | | | 0.564 | |
| OI4 | | | | | 0.814 |
| OI6 | | | | | 0.765 |
| OI3 | | | | | 0.729 |
| OI7 | | | | | 0.722 |
| OI5 | | | | | 0.721 |
| OI2 | | | | | 0.628 |
| OI8 | | | | | 0.609 |
| Variance | 21.2 | 15.1 | 14.2 | 15.2 | 14.0 |

As seen in Table 1, a five-factor structure emerges as in the original scale. When factor loads were examined, it was determined that the factor loads of all items were higher than 0.50 and there were no overlapping items. The Kaiser-Meyer-Olkin value calculated to evaluate the suitability of the data set for factor analysis was found to be 0.96. Field (2009) claimed that a value higher than 0.80 can be described as a good fit. However, the Barlett test of the sphericity coefficient was found to be statistically significant (p<0.01). Relevant values were found to be within the expected value ranges. Therefore, the analyses show that the number of participants responding to the scale was sufficient and that the data set could be factored (Hair, Black, Babin, & Anderson, 2014). In line with the relevant analyses carried out, it was concluded that a total of 41 items were patterned under five factors. Five related factors explain 79.70% of the total variance. According to EFA findings, the present instrument's factor structure resembled the originals.

The correlated five-factor model is based on the item-structure correlation resulting from the EFA. In other words, it assumes that scale items measure five related sub-dimensions. CFA was performed to confirm the structure revealed by EFA on a different sample group. A total of 325 participants were reached for CFA. Relevant data were collected electronically. The data-model goodness-of-fit index values were obtained because of the data analysis with CFA; the results obtained are shown in Table 2.

**Table 2.** Data-Model Goodness of Fit Index Values

| Models / Data-model fit indexes | $\chi^2$/sd | RMSEA | NFI | sRMR | CFI |
|---|---|---|---|---|---|
| Five-factor Model | 2.875 | .076 | .971 | .032 | .921 |

A ratio of chi-square (X2) and degrees of freedom below three indicates a perfect fit, and below five indicates a good fit (Kline, 2005). This rate was found to be 2,875. Therefore, it is shown that the data-model fit is quite good. When the results in Table 2 are analyzed according to the ideal fit index values suggested by Harrington (2009) (RMSEA < 0.08; NFI > 0.90; sRMR < 0.08; CFI > 0.90); It is observed that the related five-factor model is obtained from the analysis of well-suited values regarding model-data fit.

The item-construct parameters (standardized factor loads and relations between constructs) obtained by analyzing the related three-factor measurement model because of first-level CFA are shown in Figure 1.
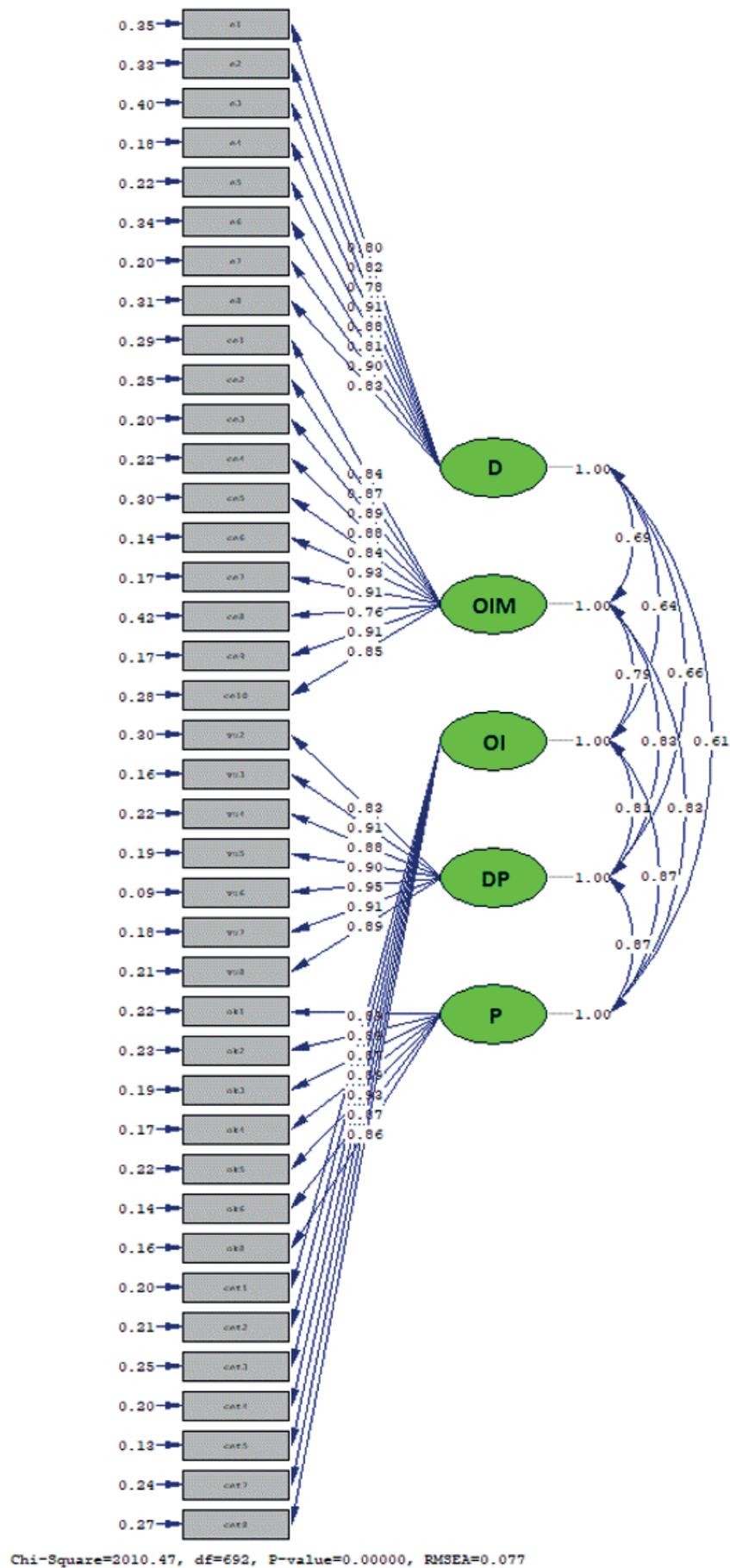
**Figure 1.** Structural model of the BTRI

The item-structure parameters in Figure 1 indicated that the standardized factor loadings of the five different sub-dimensions of the relevant model vary between 0.76 and 0.93. Factor loadings were determined to be statistically significant according to the t-value test. Brown (2015) stated that in CFA solutions, item factor loads should be greater than 0.5 and significance should be achieved in terms of t value. CFA solutions for the relevant model. This shows that results like the item-structure pattern that emerged as a result of the exploratory factor analysis were achieved, and the factorial validity of the related scale was achieved. The CFA results demonstrated that a satisfactory match was indicated by the goodness of fit indexes. Considering the findings, it may be concluded that the BITRI is suitable for usage in Turkish culture.

## What Are the Teachers' Reasons for Practicing Blended Learning in Their Courses?

Three major reasons for including blended learning in English instruction were noted by the participating teachers. These reasons all focus on the environment, teachers and learners, and the technical and technology implementation. Table 3 demonstrates the reasons for using the blended learning model in classes.

**Table 3.** Reasons for using Blended Learning Model in Classes

| Codes | Sub-categories | Number of participants discussing them | Participant Comments |
|---|---|---|---|
| Environment | Pandemic | 71 | -…That was an obligation due to the pandemic… |
| | | | -…because of recent developments like COVID-19… |
| | | | -…The fact that we could not have f2f classes because of the pandemic… |
| | Top-down change | 32 | -…This is not my personal choice now. The institution I work for uses this hybrid system but had positive experiences as I got the hang of it… |
| Learners / Teachers | Time Efficiency | 40 | -…I use it to save more time… |
| | | | -…it saves time when we apply the f2f part… |
| | | | -…it saves the time to be spent commuting to school… |
| | | | -…as a person who values time management, I could say that it helps me to be active and efficient in the learning and teaching process… |
| | 21st Century Learners | 39 | -…to be able to use 21st century skills… |
| | | | -…at the same time, it improves social relationships of learners and allows their 21st century skills … |
| | Improvement In participation | 22 | -…it helps to increase active participation… |
| | | | -…to provide more time for participation and in-class activities… |
| Technical & Technological implementation | Improvements in Technological Competence | 43 | -…because students are interested in technology… |
| | | | -…students could adapt to technological developments easily… |
| | Accessibility | 21 | -…accessibility and to benefit from online learning communities provided by technological tools… |
| | | | -…It provides the convenience of reaching the desired target vehicles without limitations of place and time… |

As can be seen from Table 3, participating teachers commented on three broad issues by specifically focusing on pandemic, top-down change policies for environment-related reasons. As one participant commented: "That was an obligation due to the pandemic…". In relation to the environment, another participant stated that "…This is not my personal choice for the moment. The institution I work for uses this hybrid system but had positive experiences as I got the hang of it…". These excerpts show that a great majority of the teachers explained the reason for choosing blended learning as top-down and obligatory due to the pandemic.

The second code, which is concerned with the learners' and teachers' aspect, time-efficiency, characteristics of 21st-century learners, and participation increase are the main reasons for applying blended learning. As one participant stated: "as a person who values time management, I could say that it helps me to be active and efficient in the learning and teaching process….". Another teacher put it to save commuting time. This could be relevant, especially for teachers who reside in big cities. Learner characteristics are another striking result derived from the analysis. Many teachers believe that blended learning is helpful for employing 21st-century skills. Accordingly, one informant reported that "-...at the same time, it improves social relationships of learners and allows their 21st-century skills …".

The third code is related to the technical and technological dimensions of blending learning. Participating teachers claimed that blended learning is instrumental in improving technological competence because as one of the teachers stated: "students could adapt to technological developments easily" and "because students are interested in technology". The last sub-code is about accessibility. For example, one teacher explained it as "It provides the convenience of reaching the desired target vehicles without limitations of place and time". Similarly, another participant commented as: "…accessibility and to benefit from online learning communities provided by technological tools".

## What Are the Teachers' Perceived Challenges They Faced During Their Blended Courses?

Table 4 illustrates two major blended learning-related issues of English instruction noted by the teachers. Surprisingly, the teachers explained these issues in relation to the teacher, the learner, and the technical and technology implementation like the responses in Table 1. As can be observed in Table 4, teachers'/students' unpreparedness for online teaching and increased burden induced by the various tasks of online teaching/learning are the two teacher/student-related online instruction challenges.

**Table 4.** Challenges of using Blended Learning Model in Classes

| Codes | Sub-categories | Number of participants discussing them | Participant Comments |
|---|---|---|---|
| Variables | Inequality of technology accessibility | 87 | -…systemic failures of electronic devices… <br><br> -…not all my students have computers/laptops at home. Some of them follow the content from their parents' phones… |
| | Need for technological competence (teachers/students/parents) | 32 | -…I felt the need to start learning new techniques like a student. I have completed almost 20 years of my profession with classical face-to-face training methods… |
| | Requirements of specific infrastructure | 12 | -…slow internet connection, technical problems such as electricity cut, etc… <br><br> -…struggling for accessing to the person in charge of maintenance … |
| | Cost of web tools and quality materials | 23 | -…The school did not supply a free video-conferencing tool, so we all used a zoom free edition. Lessons were 30 minutes and when the time was up the system kicked us out of the virtual classroom… <br><br> -…It was hard to create digital materials… <br><br> -…Finding quality material was time-consuming… |
| Learners/ Teachers | Teachers' / Learners' readiness | 16 | -…Every day I try to help my learners. They have trouble even finding their assignments… |
| | Time-consuming | 65 | -…I spent more time online preparing for my classes… |
| | Resistance to change/ adaptation issues | 15 | -…students were not familiar with the online systems. I responded to more than 30 messages each day. Many of the messages were negative things about the system.… |

As can be seen from Table 4, teachers were heavily influenced by technical and technological challenges. For example, a teacher commented: "-…not all my students have computers/laptops at home. Some of them follow the content from their parent's phone.". This is one of the recurrent themes concerning the inequality of accessibility. Another recurrent theme is the need for technological competence. As one of the teachers explained, "I felt the need to start learning new techniques like a student. I have completed almost 20 years of my profession with classical face-to-face training methods". The cost of web materials is another important issue stated by the teachers. As indicated in Table 2, the teachers had a hard time accessing and creating quality digital materials. The last sub-category shows that both teachers' and learners' readiness and adaptation could be an issue for the success of blended learning. The time-consuming aspect of preparing materials is a common theme among teachers. As one of them commented:" As a teacher, I spent more time online preparing my classes".

## What Are the Teachers' Perceived Advantages of Blended Courses?

On the other hand, two main blended learning advantages of English instruction were noted by educators. These advantages are related to the learning environment and skills at a broader level. These advantages are summarised in Table 5.

**Table 5.** Advantages of using Blended Learning Model in Classes

| Codes | Sub-categories | Number of participants discussing them | Participant Comments |
|---|---|---|---|
| Learning Environment | Self-regulated learning | 23 | -…because I think students should take initiative in learning |
| | Immediate feedback | 12 | -…fast and practical and it allows for immediate feedback… |
| | Increased interaction & collaboration | 13 | -…It is helpful for increasing interaction and quality of instruction… |
| | Flexible Learning Environment | 12 | -…to be able to integrate online tools to the lesson very easily… |
| | Personalized Learning Environment | 14 | -…the fact that it provides space for personalized learning… |
| Learning Process | Improving listening skills of learners | 12 | -…also, it is very important for improving listening skills in English lessons as well as accessing more resources… |
| | Improving speaking & writing skills of learners | 13 | -… used it for using more activities to improve learners' writing and speaking skills and for engaging more learners… |
| | | | -…I used it to give feedback on learners' writing products and do extra speaking activities… |

When these broad perspectives are analyzed, we can see that the teachers found blended learning advantageous in terms of self-regulated learning provision, giving immediate feedback to learners and increasing interaction and collaboration among them as well as a personalized and flexible learning environment. As the teachers reported:" -…it is helpful for increasing interaction and quality of instruction"; the fact that it provides space for personalized learning"; Because I think students should take initiative in learning". Furthermore, the participants focused on the improvement of specific language learning and teaching skills such as listening, speaking, and writing. For instance, one teacher stated that "used it for using more activities to improve learners' writing and speaking skills and for engaging more learners", or "also it is very important for improving listening skills in English lessons as well as accessing more resources".

## What Suggestions Do the Teachers Give to Improve Blended Courses?

Several positive suggestions were given by the teachers in their answers to the open-ended question. To address this research variable, the respondents were asked to give suggestions for blended learning environments. As shown in Table 6, most teachers expressed two main codes which are engagement and management-related suggestions.

**Table 6.** Teachers' Suggestions for Blended Courses

| Codes | Sub-categories | Number of participants discussing them | Participant Comments |
|---|---|---|---|
| Engagement related suggestions. | Ownership and social presence | 25 | -… To make the environment interactive and collaborative place. -…Trying to build a relationship. |
| | | | -…To fight low student engagement, and low motivation teachers need to include activities that enable students to learn at their own pace, attract students' attention and help them experience a sense of success, the problems encountered have been dealt with to some extent. |
| | Instructions and criteria that are clear and unambiguous | 27 | -…tutorials need to be prepared for the learners on how to submit assignments or find the online components of the class… |
| | Authentic tasks | 23 | -… the students did not do the activities I sent. I developed authentic tasks that increase their motivation… |
| | Class time needs to concern hands-on activities. | 37 | -… Students' silence in live lessons by trying to do activities that will make students active… |
| | | | -… The biggest challenge is student participation, even if the student comes to the lesson or the camera is on, sometimes it is difficult to stay there mentally. It is necessary to design an activity that will ensure the active participation of students… |
| | Asynchronous time needs to be designed effectively. | 8 | -… The distance part of the course should be designed in a way that students can do it by themselves. … |
| | Feedback | 5 | -… Giving feedback after evaluation and ensuring that students use technological tools correctly. I still can't spare the necessary time for giving feedback due to the workload, but I do lectures and demonstrations in my class on how students should use the tools… |
| Management-related suggestions | Technical problems need to be detected and solved | 32 | -…There may be a shortage of tools, I personally do the completion… |
| | | | -… Students do not have sufficient equipment, do not have the internet at home, and cannot use laptop/smartphone features… |
| | | | -… Making use of technology, developing technological solutions where face-to-face education is lacking and limited… |
| | Rewards need to be given best practices. | 33 | -… To give teachers points and incentives to encourage the blended learning environment. |
| | Schools need to provide time for blended course planning. | 25 | -… School management needs to organize teacher time to provide time for course planning… |
| | Teacher training programs need to be created and given. | 12 | -… I had no preparation and training. Teacher training should be planned by field experts… |
| | Professional learning communities need to be built voluntarily. | 23 | -…in-service training should be based on volunteering… |
| | | | -…opportunities for teachers to share good practices should be provided and good practices should be appreciated by management… |

## DISCUSSIONS AND CONCLUSION

Graham et al. (2019) denoted that effective blended teaching requires teachers to develop teaching skills for both online and face-to-face learning settings and there is a significant increase in demand for online and BL options; however, the increase in efforts to prepare teachers for that demand is insufficient. It is considered that revealing the readiness levels of teachers as part of needs analysis is critical for improving present blended teaching skills for effective practices. Therefore, the study has two purposes: First, it covers a scale adaptation of BTRI to Turkish and second the examination of the blended learning experiences of Turkish teachers as well as their suggestions and solutions for the problems they encountered during the process.

For the first phase, the scale was applied to the teacher sample which is different from the original scale. Archibald et al. (2021) suggested testing the model they put forward in their study in in-service teachers and international contexts. So, it is considered that the above-mentioned statistical results for the Turkish form the BTRI is helpful for blended learning researchers.

For the second phase, the overall qualitative results suggest that blended learning is perceived to be beneficial for learners by the teachers. Six of the six aspects of blended learning (according to Tang & Chaw, 2013) were investigated in this study. These include learning flexibility, technology availability, and utilization, online interaction, classroom learning, online learning, technology attitude, and study management.

At a broad level, the results of this study are in accord with prior research in terms of developing students' language learning, increasing students' engagement and motivation, and finally enhancing the learning environment. As a direct contribution to the relevant literature, the findings indicate that despite the teachers' positive perceptions of blended learning and its potential affordances, several challenges were mentioned regarding its implementation under the broad category of technical and technological problems such as inequality in accessing technology, the requirement of certain infrastructures, cost of web tools and quality materials, being time-consuming, teachers' and learners' readiness and resistance to change and this finding is parallel to the relevant literature (Kara & Liman-Kaban, 2023; Liman-Kaban & Boy-Ergul, 2020).

Also, our results confirmed that blended learning practices do not always lessen time in the classroom or the requirement for traditional infrastructure, but they do necessitate an initial investment and time commitment in the development of blended learning tools and courses. As a result, it is critical to verify that this investment yields specific and measurable results in terms of student progress and success as compared to traditional teaching approaches.

The shifting responsibilities of instructors and students, a lack of community building and training in blended settings, and a lack of familiarity with new technologies were also issues that teacher cited (Koc & Ates-Cobanoglu, 2020; Rianto, 2022; Yang, 2014). Changing the role of instructors in blended learning environments appears to be a significant difficulty in our data as well and this finding is parallel to the relevant literature (Altay & Altay, 2022; Liman-Kaban & Yataganbaba, 2022; Yang, 2014).

Nevertheless, some techniques might be offered to the teachers to help them deal with the difficulties. As an illustration, blended courses must begin with a face-to-face introduction phase, especially for lower-level students (Kobayashi & Little, 2011). Additionally, according to Yang (2012), doing so will enable students to put what they have learned from in-person training into practice. Similarly, Hong and Samimy (2010) advised language teachers to employ integrated computer-assisted language learning techniques for successful blended learning experiences.

Moreover, the proficiency level of the students, the amount of time they spent on the program, the restrictions, and the ICT literacy level are all factors that teachers should be aware of because they can affect how the learners perceive the value of blended learning and their satisfaction (Altay & Altay, 2022; Koc & Ates-Cobanoglu, 2020; Kobayashi & Little, 2011). By taking these factors into consideration, they could design better-blended learning environments and there would be a high chance of increasing learner motivation and interaction.

Additionally, workshops for teachers should be provided to equip them for the blended learning environment (Liman-Kaban & Yataganbaba, 2022; Koc & Ates-Cobanoglu, 2020; Yang, 2014). The same studies urge teachers to hold more discussions with their students and to impart their knowledge on blended learning

in a blended learning community. It is advised that educators who create blended learning environments seek out any institutional technological assistance they can to enhance their blended courses (Chan, 2014; Rianto, 2022).

Overall, this study has several findings, including attempting to contribute to the analysis of current, educationally important subjects, comparing participants' opinions toward both traditional and digital classrooms, and considering various facets of blended learning. This study, on the other hand, has several limitations. For instance, it consists of the teachers' perspectives only, thus its generalizability potential is limited. To overcome this, same questions could be addressed to the learners. Also, if the data were collected by means of interviews, more in-depth responses could have been received. Moreover, these findings are limited to teachers' perceptions and experiences, thus, classroom observations or even video recordings might be useful in comparing the teachers' perceptions and actual practices to obtain a thorough perspective in relation to challenges and opportunities.

All things considered, it could be said that any consideration of blended learning requires a solid understanding of why we, as educators, should offer blended learning to our context, but most importantly in what ways blended learning could support and improve their learning outcomes by taking the experiences and suggestions of teachers into consideration, and this study is a good example for it.

These findings, although limited to the teachers' experiences and perceptions, may help us to understand how crucial it is to provide training for teachers and learners. As indicated by the participating teachers, most of them did not have training in using blended learning models in their pre-service or in-service education. Therefore, by considering the needs of the teaching contexts and culture, teachers at all levels should be trained to deliver blended teaching which was also suggested by Archibald et al. (2021). Education faculties can offer theoretical and practical courses for all teacher candidates. As for in-service teacher education, workshops can be organised for teachers specifically focusing on task design and the use of technological tools in online and face-to-face contexts. The authors agree with Joosten et al. (2021, p.26) implying that "as faculty experience faculty and professional development opportunities to learn more about creating active and meaningful interactions with students for blended courses, their teaching may be forever changed." Therefore, it is considered that the teachers need to be encouraged to improve blended learning and teaching experiences and skills for meaningful and active teaching in a digital age.

## BIODATA and CONTACT ADDRESSES of AUTHORS

**Dr. Aysegul LIMAN KABAN** is an Assistant Professor within the Department of Computer Education and Instructional Technologies at the Faculty of Education, Bahcesehir University, located in Istanbul, Turkiye. Having obtained her Ph.D. in Educational Technology in July 2020, her scholarly pursuits are centered around community inquiry, technology-enhanced learning environments, educational multimedia, and gamification in educational contexts. Additionally, she completed a course in E-Learning and Digital Culture at The University of Edinburgh in 2013. She has served as the associate editor of the Journal of Computer-Assisted Learning since March 2024. Kaban has provided comprehensive technology integration training to educators in more than 100 educational institutions across Turkiye. Furthermore, she has authored two children's books titled "Oyun Canavari" and "Defne'nin Dijital Kimligi," addressing game addiction and internet security themes.

Aysegul LIMAN KABAN
Computer Education and Instructional Technologies, Education Faculty
Address: Bahcesehir University, 34253, Istanbul, Turkiye
Phone: +90 2163930436
E-mail: aysegul.liman@bau.edu.tr

**Dr. Esra YATAGANBABA** holds a Ph.D. in ELT and works as an EFL Instructor at Ege University School of Foreign Languages. She has taught general, vocational, and academic English courses over 14 years in tertiary contexts. Currently, as an EFL Instructor at Ege University School of Foreign Languages, she offers general English and academic courses at the undergraduate level. Currently, as an EFL Instructor at Ege University School of Foreign Languages, she offers general English and academic courses at the undergraduate level. She has a TESOL Certificate Advanced Practitioner and is an active member of organizations such as TESOL International, TESOL Turkiye, and IATEFL. Her expertise lies in captivating areas such as code-switching, language policing, L2 classroom interaction, reflective practice, professional development of language teachers, and language teacher education.

Esra YATAGANBABA
Department of Foreign Languages, School of Foreign Languages
Address: Ege University, 35040, Izmir, Turkiye
Phone: +90 2323886759
E-mail: esra.yataganbaba@ege.edu.tr

**Dr. Alev ATES COBANOGLU** is an Associate Professor of Computer Education and Instructional Technology (CEIT) program of the Faculty of Education, Ege University. She received her M.Sc in the Dokuz Eylul University in 2005. She had worked as an Information and Communication Technology (ICT) teacher at a high school of the Ministry of National Education (MoNE) for three years. She received her PhD in Curriculum and Instruction from Ege University in 2013. Currently, she is an Associate Professor of Computer and Instructional Technology. Her academic interests are blended learning, online learning, ICT integration in education, instructional technology, and instructional design.

Alev ATES COBANOGLU
Department of Computer Education and Instructional Technology, Faculty of Education
Address: Ege University, 35040, Izmir, Turkiye
Phone: +90 2323113144
E-mail: alev.ates@ege.edu.tr

**Dr. Mehmet KOKOC** is an Associate Professor of Management Information Systems at the School of Applied Sciences, Trabzon University. He gained his Ph.D. in Computer Education and Instructional Technology from Hacettepe University in December 2015. He is a member of the Advisory Board of the Social Sciences and Humanities Research Grant Committee (SOBAG) within the Research Support Programs at The Scientific and Technological Research Council of Turkiye (TUBITAK). Having successfully led and participated in many research projects, he has assumed key roles as a researcher in various national and international interdisciplinary collaboration projects. His research interests primarily focus on technology-enhanced learning environments, e-learning, learning analytics, human-computer interaction, video lectures, cognition, and media. More specifically, he explores the connections and insights within these areas.

Mehmet KOKOC
Department of Management Information Systems, School of Applied Sciences
Address: Trabzon University, 61335, Trabzon, Turkiye
Phone: +90 4624551198
E-mail: kokoc@trabzon.edu.tr

# REFERENCES

Archibald, D. E., Graham, C. R., & Larsen, R. (2021). Validating a blended teaching readiness instrument for primary/secondary preservice teachers. *British Journal of Educational Technology, 52*(2), 536-551.https://doi.org/10.1111/bjet.13060

Altay, I.F., & Altay, A. (2022). A Systematic Review of Studies on Blended Learning in Environment. Retrieved 2 June 2022, from http://ijci.wcciinternational.org/index.php/IJCI/article/view/255

Ates Cobanoglu, A. (2020). From Ubiquitous-to-Ubiquitous Blended Learning Environments, *In Managing and Designing Online Courses in Ubiquitous Learning Environments* (Eds. Durak Gurkan, Cankaya Serkan), IGI-Global, 1st Edition, ISBN:9781522597797

Balci, E. (2017). *Perceptions on blended learning: a study on student and instructor experiences in an English preparatory program* (Master's thesis, Pamukkale Universitesi Egitim Bilimleri Enstitusu).

Baran, H. & Ozen, E. (2019). Cevrimici ogrenmede ogretmen hazirbulunuslugu olceginin Turkce uyarlamasi: Gecerlik ve guvenirlik calismasi. *International Open & Dictance Learning Conference* (pp.725-732). Eskisehir.

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York, NY: Guilford Press.

Buyukozturk, S. (2009). *Sosyal bilimler icin veri analizi el kitabi*: Istatistik, arastirma deseni, SPSS uygulamalari ve yorum. Ankara: Pegem Yayinlari.

Chan, C. H. (2014). Building an online library for interpretation training: explorations into an effective blended-learning mode. *Computer Assisted Language Learning, 27*(5), 454-479. doi:10.1080/095 88221.2013.770034

Chi, A. (2015). *Development of the readiness to teach online scale.* Master's Thesis. Retrieved from https://digitalcommons.du.edu/etd/1018/

Creswell, J. W. (2011). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (Fourth edition). Upper Saddle River, NJ: Pearson Education.

Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. Sage.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2014). *Pearson new international edition. Multivariate data analysis*, Seventh Edition. Pearson Education Limited Harlow, Essex.

Hong, K. H., & Samimy, K. K. (2010). The influence of L2 teachers' use of CALL modes on language learners' reactions to blended learning. *CALICO Journal, 27*(2), 328-348.

Hosgorur, T., & Adnan, M. (2018). Cevrimici Ogretime Hazirbulunusluk Anketinin Turkce'ye Uyarlanmasi. *Trakya Universitesi Egitim Fakultesi Dergisi, 8*(3), 629-640.

Graham, C. R. (2013). Emerging practice and research in blended learning. In *Handbook of distance education* (pp. 351-368). Routledge.

Graham, C. R. (2022). Exploring definitions, models, frameworks, and theory for blended learning research. In *Blended Learning Research Perspectives, Volume 3* (pp. 10-29). Routledge.

Graham, C. R., Borup, J., Pulham, E. B., & Larsen, R. (2019). K-12 blended teaching readiness: Model and instrument development. *Journal of Research on Technology in Education, 51*(3), 239–258. https://doi.org/10.1080/15391523.2019.1586601

Hambleton, R. K. & Bollwark, J. (1991). Adapting tests for use in different cultures: Technical issues and methods. *Bulletin of the International Testing Commission, 18*, 3-32.

Hambleton, R., & Kanjee, A. (1993). Enhancing the validity of cross-cultural studies: Improvements in instrument translation methods. *Paper presented at the annual meeting of the American Educational Research Association.*

Harrington, D. (2008). *Confirmatory Factor Analysis*. Oxford University Press.

Huang, R. M., Lanqin, Z., & Haisen, Z. (2009). The theory of curriculum design based on blended learning. *E-education Research, 9*-14. https://doi.org/10.1007/978-3-540- 85170-7_6

Hung, M. (2016). Teacher readiness for online learning: Scale development and teacher perceptions. *Computer & Education, 94*, 120-133. https://doi.org/10.1016/j.compedu.2015.11.012

Joosten, T., Weber, N., Baker, M., Schletzbaum, A., & McGuire, A. (2021). Planning for a Blended Future: A Research-Driven Guide for Educators. *[Report] Every Learner Everywhere Network.* Retrieved 5 October 2022 from: https:// www.everylearnereverywhere.org/resources/

Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and psychological measurement, 20*(1), 141-151.https://doi.org/10.1177/001316446002000116

Kara, G., & Liman-Kaban, A. (2023). Experiences of elementary school teachers towards blended learning implementation. *International Journal of Learning Technology, 18*(2), 237–256. https://doi.org/10.1504/ijlt.2023.132762

Kirmizi, O., & Yapici, K. (2019). Turkish teachers' views on blended learning: A qualitative analysis. *Journal of Social Sciences and Humanities, 3*(1), 31-41.

Kline, T. (2005). *Psychological testing: A practical approach to design and evaluation.* Sage.

Kobayashi, K., & Little, A. (2011). Learner perceptions on the usefulness of a blended learning program. *The JALT CALL Journal, 7*(1), 103-107.

Koc, M. & Ates-Cobanoglu, A. (2020). Harmanlanmis ogrenme ortamlarinin algilanan etkilesim degeri olceginin gelistirilmesi. *Egitim Teknolojisi Kuram ve Uygulama, 10* (1), 51-73. DOI: 10.17943/etku.582522

Kosar, G. (2016). A study of instructors' perceptions of blended learning. *Procedia-Social and Behavioral Sciences, 232*, 736-744.

Liman-Kaban, A., & Yataganbaba, E. (2022). The Affordances of Video Conferencing Tools in Synchronous Online Sessions in the Turkish Context. *International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT), 12*(1), 1-21. http://doi.org/10.4018/IJCALLT.301194

Liman Kaban, A., & Boy Ergul, I. (2020). Teachers' Attitudes towards the Use of Tablets in Six EFL Classrooms. In E. Podovsovnik (Ed.), *Examining the Roles of Teachers and Students in Mastering New Technologies* (pp. 284-298). Hershey, PA: IGI Global. Doi:10.4018/978-1-7998-2104-5.ch015.

Marshall, C. & Rossman, G. (2006). *Designing qualitative research*, (4th Ed.). Thousand Oaks: Sage.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook* (2nd ed.). California: Sage.

Norberg, A., Dziuban, C.D. & Moskal, P.D. (2011). A time-based blended learning model. *On the Horizon, 19*(3), pp. 207-216. https://doi.org/10.1108/10748121111163913

Patton, M. Q. (2015). *Qualitative Research & Evaluation Methods* (Fourth edition). Thousand Oaks, CA: Sage Publications.

Poirier, M., Law, J. M., & Veispak, A. (2019). A Spotlight on Lack of Evidence Supporting the Integration of Blended Learning in K-12 Education: A Systematic Review. *International Journal of Mobile and Blended Learning (IJMBL), 11*(4), 1-14. http://doi.org/10.4018/IJMBL.2019100101

Polat, E., Hopcan, S., & Yahsi, O. (2022). Are K–12 Teachers Ready for E-learning?. *International Review of Research in Open and Distributed Learning, 23*(2), 214-241.https://id.erudit.org/iderudit/1089165ar

Rianto, A. (2022). *Blended Learning Application in Higher Education: Learners' Perceptions, Problems, and Suggestions.*http://dx.doi.org/10.21093/ijeltal.v5i1.574

Ross, B., & Gage, K. (2006). *Global perspectives on blending learning* (pp. 155-168). San Francisco: Pfeiffer.

Smith, K. & Hill, J. (2019) Defining the nature of blended learning through its depiction in current research. *Higher Education Research & Development*, 38(2), 383-397, DOI:10.1080/07294360.2018.1517732

Tang, C. M. & Chaw, L. Y. (2013). Readiness for blended learning: Understanding attitude of university students. *International Journal of Cyber Society and Education*, 6, 2, 79-100.

Wang, L., Huang, Y. & Omar, M. (2021). Analysis of Blended Learning Model Application Using Text Mining Method. *International Journal of Emerging Technologies in Learning (iJET), 16*(1), 172-187. Retrieved September 19, 2022, from https://www.learntechlib.org/p/218650/.

Yang, Y. (2014). Preparing language teachers for blended teaching of summary writing. *Computer Assisted Language Learning, 27*(3), 185-206. doi:10.1080/09588221.2012.701633