Education Informatics Network-Based Blended Learning in High School English as a Foreign Language Context

Elif Ay Kaya*[a], Hayriye Avara[b]

[a](ORCID ID: 0000-0003-1978-2893), Ministry of National Education, Türkiye, elifay3408@gmail.com
[b](ORCID ID: 0000-0002-5575-3497), Amasya University, Faculty of Education, hayriyeavara@gmail.com
*Corresponding author

ABSTRACT

The primary purpose of the present study is to ascertain high school students' perceptions of the efficacy of blended learning in English as a Foreign Language (EFL) classes based on the Education Informatics Network (EIN) which is used as a learning management system in Turkish K-12 schools. The sample of the study was composed of 122 EFL students studying at a state high school. The study was designed with a convergent research design, one of the mixed-methods research designs. Quantitative findings showed that students' general views on EIN-based blended learning were neutral, yet positive about face-to-face lessons. The obtained qualitative findings mostly converged with the quantitative data results, and they clarified that students had both positive and negative opinions about the impact of blended learning on the development of language skills, assessment, learner autonomy, and classroom atmosphere. Furthermore, interview findings indicated that students expected the EIN portal to be free of technical problems, easily accessible and to include more enjoyable and various activities for a better implementation of the EIN-based blended learning. Lastly, several suggestions for further research were put forward as well as some educational implications for teaching EFL in an EIN-based blended learning environment.

INTRODUCTION

Several fields, including educational policies, curricula, and teaching methods and approaches, have undergone significant change because of the usage of technology in the field of education (Fis-Erumit, 2021). For instance, in Turkiye, with the onset of computer-assisted learning in education as well as the use of the Internet, schools were equipped with computer labs, educational software, educational games, TVs, projectors, whiteboards, and educational videotapes (MoNE, 2007). In 2010, the Ministry of National Education initiated a new project (FATIH) to provide equal educational opportunities for all students, overcome the digital divide, and advance technology in classrooms by embracing additional senses, this project was acknowledged as the biggest and most comprehensive educational movement to use technology in education (MoNE, 2022). As one of the main components of this project, an online educational platform called Education Informatics Network (EIN) was created to support students with educational content, and e-books and to allow students to reach classroom projects and assignments given by their teachers regardless of time and place. Moreover, it was aimed at helping students develop 21st-century skills such as technology use, analytical thinking, effective communication, cooperation, collaboration, and problem-solving (MoNE, 2022). Regarding the use of EIN in English as a foreign language (EFL) class, resources provided by national and international publishers and all digital content have been designed to develop students' four language skills holistically based on the objectives of Turkey's Education Vision 2023 which supports the use of online learning and mobile technologies in foreign language learning (MoNE, 2018). Within this scope, the EIN Language Learning Portal was developed to empower foreign language learners to practice English with enriched learning materials such as different publications, videos, and visual and audial aids including cartoons, songs, flashcards, documentaries, and reading books. All these developments are also in accordance with the revised English curriculum for the ninth through twelfth grades in Turkiye that encourages a blended learning environment for language learners considering the advantages of technology in language education (MoNE Secondary Education English Curriculum, 2018). Based on the initiatives from the Turkish MoNE, this study designed a blended learning setting for high school EFL students by integrating the EIN portal as the learning management system and aimed to unveil students' perceptions about its effectiveness in facilitating the foreign language learning process. The significance of the study lies in determining the students' opinions and attitudes related to the current learning design to figure out the effectiveness of learning processes (Akkoyunlu & Yılmaz-Soylu, 2008). Moreover, although recent studies in K-12 schools have shown that EIN-supported lessons positively impact self-regulated learning and assessment (Bicer, 2022), enhance listening skills, and foster positive perceptions (Kılıç, 2020), and improve vocabulary and grammar development while creating favorable perceptions (Pehlivan, 2020), there remains a lack of comprehensive research on EIN-based blended learning in high school EFL classes analyzing it across different dimensions. In compliance with the objectives above, this study was led by the following research questions:

1. What are the students' opinions about EIN-based blended learning?

2. How do students perceive the effect of EIN-based blended learning on a) language skills development b) assessment c) learner autonomy, and d) classroom atmosphere?
3. What are the advantages and disadvantages of EIN-based blended learning?

LITERATURE REVIEW
Blended Learning

In the most basic and widely stated definition, blended learning is "the thoughtful integration of classroom face-to-face learning experiences with online learning experience" (Garrison & Kanuka, 2004, p.96). According to Holmes and Gardner (2006), the apparent absence of in-person interaction which was frequently brought up as the drawback of online learning led to a practice known as blended learning. When implemented successfully, blended learning can provide learners with numerous advantages including pedagogical richness, access to knowledge, social interaction, personal agency, cost-effectiveness, and ease of revision (Graham, 2006). Hew and Cheung (2014) suggest that blended learning can promote contact with students using computer-mediated communication tools including asynchronous and synchronous digital technology. Furthermore, it can help to assure educational quality, provide feedback, and offer extension activities and tasks especially to cope with difficult topics for learners (Sharpe, 2006, as cited in Huang & Zhang, 2008). Personalized learning has been cited by scholars as another significant benefit of blended learning (Huang & Zhang, 2008; Roff, 2017). Thanks to blended learning, lots of paperwork has been substituted with a minimal amount of online work (Huang & Zhang, 2008). Despite all its educational benefits, the literature uncovers that blended learning may also have certain drawbacks. Graham (2006) also identifies six major problems that hinder the implementation of blended learning design, including the importance of live engagement, learner autonomy, and self-regulation, models for support and training, closing the digital divide, cultural adaptability, and balancing innovation and production. Besides, internet access concerns and other technical difficulties were the main issues that hindered successful learning in a blended learning setting (Al Zumor et al., 2013; Rojabi, 2019).

Blended Learning in EFL Context

According to McCarthy (2016), the tremendous increase in computer use in the 1980s and 1990s, notably the emergence of the internet, was the biggest element that led educational practitioners to implement blended language learning. In addition to the numerous benefits of blended learning, Hockly (2011) lists some other reasons why we should employ blended learning in ELT as follows (p.58, as cited in Whittaker, 2013):

- *Learners' expectations* – learners nowadays expect technology to be integrated into their language classes.
- *Flexibility* – learners expect to be able to fit learning into their busy lives.
- *Ministry of Education (or similar) directives* – in some contexts, teachers are expected to offer blended learning options.

Moreover, much has been published in the literature about the positive effects of blended instruction on foreign language learning and EFL students' perceptions (Ahmed, 2019; Aksel, 2021; Avcı & Adıguzel, 2015; Bahce & Taslaci, 2009; Banditvilai, 2016; Guclu, 2018; Hos et al., 2016; Huang, 2016; Miyazoe & Anderson, 2010; Mohamed, 2022; Rachman, 2021; Sabat et al., 2022; Sahin-Kizil, 2014; Wang et al., 2021) and the following sub-titles provide detailed explanations and examples of related studies on how blended learning influences foreign language learning in terms of skills development and other important factors.

Development of Language Skills in EFL Blended Learning

The literature has several investigations that have been conducted on the impact of blended learning on the development of language skills. For instance, to examine the effect of blended learning on university students' writing proficiency, Sheet (2019), used a case study by providing students with 13 weeks of writing assignments on the Edmodo platform. The results showed that there is a statistically significant difference in the experimental group's degree of proficiency in English writing skills. Similarly, regarding the improvement of reading skills in a blended language course, Bataineh and Mayyas (2017) performed experimental research with Jordanian university students by using Moodle as an LMS to complement conventional face-to-face instruction. According to the results, students in the experimental group significantly improved their skimming, scanning, and overall reading comprehension abilities when compared to those of the control group. Another study by Yang et al (2013), examined the usefulness of incorporating Moodle, a virtual learning environment into traditional English listening and speaking training with a one-group pretest-posttest design. The pupils were provided with a wide range of elements, including audio-visual and digital content, adapted to their level, as well as online discussion forums and personalized feedback. The empirical findings showed that Moodle-supported lessons aided learners in enhancing their English listening and speaking skills. Besides, Sabat et al. (2022) aimed to examine the influence of blended instruction on pronunciation lessons through the perceptions of Indonesian EFL students in a case study. According to the students, blended learning was beneficial for learning pronunciation as online activities such as singing English songs and pretending to be an English news reporter facilitated them to practice pronunciation in a fun way. In the study of Bahce and Taslaci (2009) which integrates Blogs into EFL writing classes to create a blended learning environment, students' perceptions towards blended learning were investigated. The sample consisted of 55 intermediate-level EFL students in Anadolu University's preparatory school. Student reflections served as the data source and the findings demonstrated that students had positive attitudes toward blended writing class.

Assessment in EFL Blended Learning

Teachers have long viewed giving feedback to students as a crucial part of the process of developing a variety of abilities in foreign language learning (Herra & Kulinska, 2018). Because of the advancement of online learning, feedback is now used to represent a wide range of autonomously generated data, whereas it was previously used to relate to teacher comments on students' progress (Jensen et al., 2021). Digital tests with pre-set responses, for instance, are frequently seen as feedback in online learning (Forster et al., 2018; Maier et al., 2016, as cited in Jensen et al., 2021). According to Newhouse (2011), online tests typically give students a chance to exhibit what they have learned, assist in tracking their progress toward proficiency, and contain a strategy for evaluating their performance. Furthermore, research on assessment in the online component of blended learning has shown that students are satisfied, motivated, and profit from online feedback especially when they get online teacher feedback outside of the classroom (Aksel, 2021; Guclu, 2018).

Learner Autonomy in EFL Blended Learning

In simplest and most cited definition, learner autonomy is described as the "ability to take charge of one's own learning" (Holec, 1981, p.3). Previous studies have indicated that in blended language learning, pupils engaged in autonomous behaviors such as taking control of their education, creating objectives, selecting materials to achieve those goals, carrying out a learning plan, assessing their process of learning, and directing their language acquisition (Bitlis, 2011) and once the teacher established the guidance with the use of an LMS, students gradually gained autonomous thinking and behavior as a result of their participation in the blended learning environment (Snodin, 2013). Furthermore, earlier research indicated that participants' motivation improved significantly because of the deployment of blended learning (Banditvilai, 2016; Purnawarman et al., 2016; Wang et al., 2021; Wong et al., 2020).

Interaction and classroom atmosphere in EFL blended learning

Long (1996) defines the role of interaction in language learning as "connecting input, internal learner capacities, and output in productive ways" and facilitating language learning (p. 452, as cited in Gass et al., 1998). While class attendance has long served as the primary indicator of learner engagement in traditional educational settings (Douglas & Alemanne, 2007), blended learning instruction has made it possible to foster interaction and engagement by giving students additional opportunities to interact with one another, teachers, and courses collaboratively both within and outside the classroom (Ahmed, 2019; Avcı & Adıguzel, 2017; Ehsanifard et al., 2020; Mohamed, 2022; Sahin-Kizil, 2014; Sheet, 2019).

METHOD
Research Design and Instruments

The current study employs a mixed-methods research design that entails the collection or analysis of both quantitative and qualitative data in a single study with an effort to combine the two methodologies at one or more phases of the study as described by Dornyei (2007) and offers a deeper comprehension of research issues Creswell (2009). The present study adopts the convergent design of the mixed methods in which the researcher aims to triangulate the approaches by comparing and contrasting quantitative statistical findings with qualitative results for confirmation, validity, and complementarity (Creswell & Plano Clark, 2018). Creswell and Plano Clark (2011) illustrated this design, as seen in Figure 1 below.
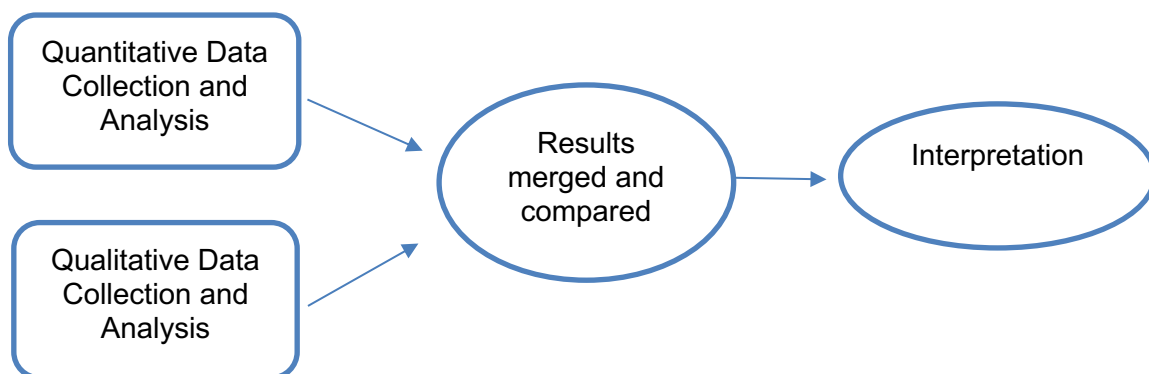

Figure 1. The Convergent Parallel Design

Regarding the research instruments, two different data instruments including a questionnaire and a semi-structured interview were used to collect quantitative and qualitative data. An online version of the questionnaire on students' opinions on blended learning (face-to-face + online) and its implementation process, designed by Akkoyunlu and Soylu (2008) and adapted by Balci (2017), was employed for the quantitative part of the study. The questionnaire consisted of 52 items with a five-point Likert scale ranging from 1(Strongly Disagree) to 5 (Strongly Agree) and four main categories including (1) online platform, (2) face-to-face lessons, (3) assessment, and (4) general opinions on blended learning. With the aid of two distinct researchers who hold Ph. D.s in the areas of foreign language instruction and assessment and evaluation in education respectively, the validity of the questionnaire was verified. Besides, it was administered in Turkish to ensure that all the elements were understood by the participants and to prevent any

misconceptions. Regarding the reliability of the questionnaire, Akkoyunlu and Soylu (2008), the developers of this questionnaire, calculated its total Cronbach alpha value as .72 whereas Balci (2017) who adapted the questionnaire found its reliability level as .90. Additionally, the instrument used in the current study has a total Cronbach's alpha of .91. The findings show that the instrument performs well in terms of reliability. Details about the reliability level of the scale were presented below in Table 1.

Table 1. Reliability Analysis

	N of Items	Cronbach's Alpha
EIN Portal	17	.86
Face-to-Face Courses	10	.92
Assessment	4	.73
General Views	21	.85
All Scale	52	.91

Table 1 demonstrates that the scale is reliable for use in research because both all items in the scale and the items in the subcategories of the questionnaire have a Cronbach's alpha level of more than .70. The second instrument was semi-structured interviews. As advised by Cresswell and Plano Clark (2018), the researcher created questions for semi-structured interviews based on expert consultation and parallel to the main elements of the questionnaire to allow for comparison or combination of the qualitative and quantitative results. The interviews were held in Turkish, the native language of the learners, to enable them to convey their thoughts more readily and all the interviews were audio recorded. In this regard, interview questions sought to assess students' perceptions of the implementation of EIN-based blended learning (face-to-face + online process), language skill development, assessment, the benefits and drawbacks of EIN-based blended learning, and its impact on learner autonomy, and classroom environment.

Participants

Participants of the study were composed of 122 EFL students who were studying in 9th and 11th grade at a high school in Samsun, Turkiye in the 2021-2022 academic year. All the students were already familiar with the EIN portal as it was the main educational LMS used in the K-12 schools for educational purposes. Besides, the school of the participants had classrooms that were equipped with interactive boards and a computer laboratory where they could practice online studies and do revision during their breaks. Convenience sampling, a sort of non-probability sampling, was used in this study because the participants were selected from the researcher's own classrooms. Convenience sampling is preferred when samples meet certain practical requirements, such as proximity to the research site, availability at a specific time, ease of access, or willingness to participate in the study (Dornyei, 2007). Semi-structured interviews were conducted with 16 students who volunteered for the interviews during the qualitative phase of the study. The same participants were asked to participate in semi-structured interviews as suggested by Creswell and Plano Clark because this study compared the data sources (2018).

Data Collection and Analysis

Prior to beginning the data gathering, the questionnaire was pilot tested on 42 randomly selected participants studying in the 9th and 11th grades after they got familiar with the blended learning implementation for three weeks to ensure that it is reliable for use with high school students. The reliability level of the pilot test was calculated as .92 through the SPSS analysis, demonstrating that the tool was trustworthy for obtaining and analyzing further data. Besides, ethical permissions were obtained from the university and the Provincial Directorate of National Education, and all the participants participated in the study and data collection process voluntarily. The implementation process lasted for eight weeks. At the end of the implementation, Google Forms was used to gather statistical data from participants and the obtained data was analyzed through descriptive statistics in the SPSS program. Each item was rated by the students on a scale of Completely Disagree (1) to Completely Agree (5). The scores were classified into the following categories: "1.00-1.80: Completely Disagree," "1.81-2.60: Disagree," "2.61-3.40: Moderately Agree," "3.41-4.20: Agree," and "4.21-5.00: Completely Agree". On the other hand, the MAXQDA software was employed to evaluate qualitative data through the content analysis method which entails locating, categorizing, coding, and naming the major patterns in the qualitative data (Patton, 2002). For this procedure, the audio-recorded semi-structured interviews were accurately transcribed and transferred to the MAXQDA software for the coding process. These codes were grouped under the relevant themes to analyze the code frequencies for each theme that emerged during the interviews.

FINDINGS
Findings for the First Research Question

The first research question was "What are the students' opinions about EIN-based blended learning?". To determine students' opinions about this issue, descriptive statistics were used to calculate mean values and standard deviations for the sub-categories of the questionnaire, which included the EIN portal, face-to-face learning, assessment, and blended learning. Table 2 displays the mean scores for each relevant subcategory.

Table 2. Descriptive Statistics for the Students' Opinions on EIN-based Blended Learning

Sections	n	M	SD
EIN Portal	122	3.00	.60
Face-to-Face Learning	122	4.12	.82
Assessment	122	3.52	.83
General Views on Blended Learning	122	2.96	.60

Table 2 demonstrates that the students' opinions of blended learning varied depending on the different components of blended learning. As can be seen in Table 2, the highest mean (4.12) belongs to the face-to-face learning part of blended learning, which shows that students had favourable opinions towards face-to-face learning. Students also had positive views of the assessment (M=3.52). Nevertheless, students had neutral views of the EIN portal (3.00) and their general views on blended learning (2.96).

Findings for the Second Research Question Regarding Language Skills Development

Table 3. Descriptive Statistics for the Development of Language Skills on the EIN Portal

Relevant Items	n	M	SD
13. The EIN portal allows me to practice my reading and listening skills.	122	3.17	1.16
14. I can easily do a writing task and send it to my teacher via the EIN portal.	122	3.26	1.31
15. I can improve my vocabulary with the EIN portal exercises.	122	3.36	1.08
16. Grammar exercises on the EIN portal meet my learning needs in grammar.	122	3.27	1.11
17. Grammar exercises on the EIN portal develop my competence in grammar.	122	3.36	1.05

It was aimed at finding what the students thought about the EIN portal's contribution to the development of language skills with the use of items 13–17 in the subcategory of the questionnaire related to the EIN portal. As shown in Table 3, the mean values of the items are remarkably similar, and these values indicate that they partially agree that EIN-based blended learning supports their language development. Though the means are virtually comparable, grammar development (M=3.36, M=3.27) and vocabulary development (M=3.36) have got the greatest mean score while reading and listening skills have got the lowest (M=3.17) scores. To some extent, qualitative data analysis confirms this result since vocabulary skills were the most commonly listed skill.
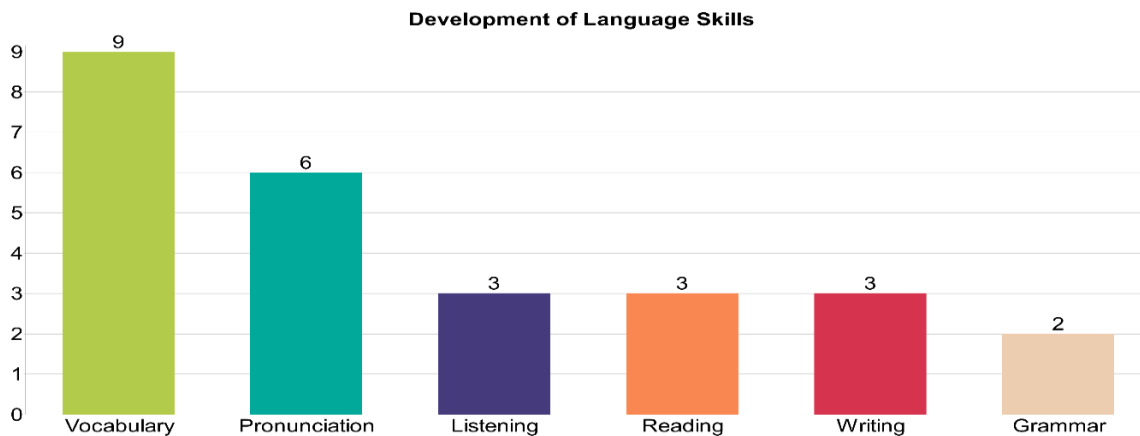

Figure 2. Frequency of coded sections regarding the development of language skills

Figure 2 exemplifies that vocabulary (f=9) is the most emphasized skill which students thought having improved. Though the statistical results are in line with the qualitative ones regarding vocabulary development, they do not support the finding indicating that grammar (f=2) is one of the most improved skills. Instead, the development of pronunciation skills (f=6) takes second place among the other skills. Furthermore, listening (f=3), reading (f=3), and writing skills (f=3) were emphasized equally. The following quotes explain the reasons clearly.

The majority of students reported that activities on the EIN portal enhanced their vocabulary and pronunciation skills the most. "There are many words in English, and they must be memorized. I believe that when we watch these applications, our memorizing improves; simply, it is the most effective in terms of vocabulary." (S10)

"I can pronounce the words more readily since I learned how to pronounce them through listening activities on the EIN portal." (S9)

Nonetheless, some students emphasized that they fostered other skills rather than vocabulary and pronunciation skills. They expressed their thoughts as follows:

"I simply believe that it has increased our writing skills, thanks to the writing assignments on the EIN portal assigned by our teacher." (S15)

"The grammar tasks are enjoyable and quite beneficial. They have enhanced my grammatical skills." (S1)

Findings for Students' Perceptions Regarding Assessment

Table 4. Descriptive Statistics for the Assessment In EIN-Based Blended Learning

Relevant Items	n	M	SD
28. The assessment criteria of the exercises on the EIN portal guide us on how and what to do the tasks.	122	3.02	1.04
29. The guidance of our teacher on the exercises in face-to-face classes helps us a lot.	122	4.16	1.06
30. The assessment criteria of the exercises on the EIN portal are clear and understandable.	122	2.93	1.20
31. The exams and quizzes conducted during the face-to-face classes show us our progress and what we have learned.	122	3.98	1.13

In the sub-category of the questionnaire, which is related to assessment, items 28 and 30 were used to collect data on online assessment whereas items 29 and 31 were utilized to ascertain students' views regarding face-to-face assessment. According to the results, students have neutral attitudes toward online assessment as the mean value of items 28 and 30 are 3.02 and 2.93 respectively. Nevertheless, items 29 (M=4.16) and 31 (M=3.98) indicate that students have favourable perceptions about face-to-face assessments. Students were also interviewed on the impact of teacher feedback on their work via the EIN portal to further understand their perspectives on the assessment component of blended learning. The frequency of coded parts and student interview extracts indicated the following conclusions.
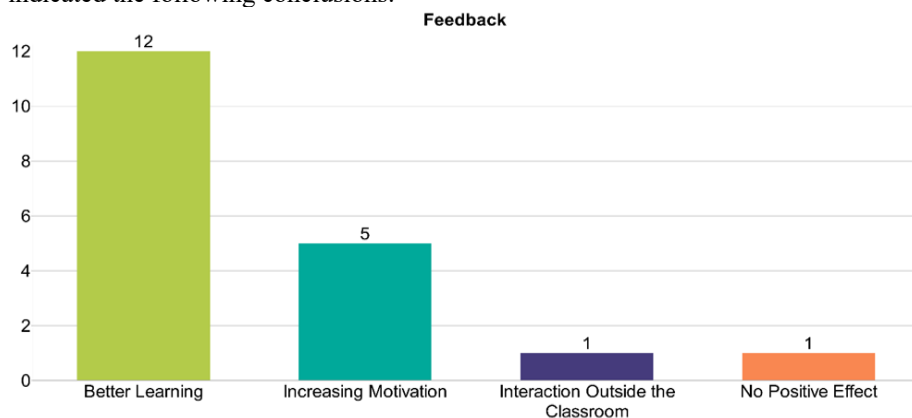

Figure 3. Frequency of coded sections regarding feedback

As shown in Figure 3, providing better learning (f=12) is the element that is most frequently stated in responses to the question about what students think about the effect of teacher feedback via the EIN platform. Figure 2 also exemplifies that students acknowledge that getting feedback from their teachers via the EIN platform increases their motivation (f=5). The "interaction outside the classroom" code (f=1) and the "no positive" code (f=1) were the least mentioned codes. The participants' coded remarks on the teacher feedback are provided below.

"For example, when we submit our writing exercises to the EIN portal, our instructor gives us likes and says it's acceptable or not. We receive comments outside of the classroom as our teacher warns us to pay attention to the points that we need to correct, and this is a beneficial thing for us." (S8)

Further, some students stated that getting feedback from their teachers increased their motivation.
"… you give likes to our assignment; I believe the teacher loved it, and I believe I was able to do it. When I see the likes, it boosts my motivation because it makes me want to learn more." (S11)

Student 6 emphasized that the teacher feedback provided interaction outside the classroom as follows:

"It appears to be rather beneficial in my opinion. We interact. We become engaged in another place outside of the school setting, at least with our teacher." (S6)

However, student 15 provided the following insight:

"No, I do not believe that teacher feedback through the EIN portal is useful. I believe it is more effective when we receive it through face-to-face classes." (S15)

Findings for Students' Perceptions Regarding Learner Autonomy

Table 5. Descriptive Statistics for the Learner Autonomy in EIN-based Blended Learning

Relevant Items	n	M	SD
32. Learning through the EIN portal increases my responsibility for the course.	122	2.83	1.13
39. I can study quietly and comfortably on the EIN portal by myself.	122	3.11	1.17
41. EIN allows me to plan my studies.	122	2.82	1.07
42. On the EIN portal, I am able to study at my own pace.	122	3.20	1.15
45. I can study repeatedly on the EIN portal.	122	3.35	1.15
48. The EIN portal allows me to devote more time to my education.	122	3.05	1.16
50. EIN portal is a very beneficial tool for self-study.	122	3.26	1.23

Table 5 reveals that students partially acknowledge that EIN-based blended learning contributes to their learner autonomy. Out of the items related to learner autonomy, item 45 "I can study repeatedly on the EIN portal" has got the greatest score with a mean value of 3.35 while item 41 "EIN allows me to plan my studies" has got the lowest mean value (2.82).
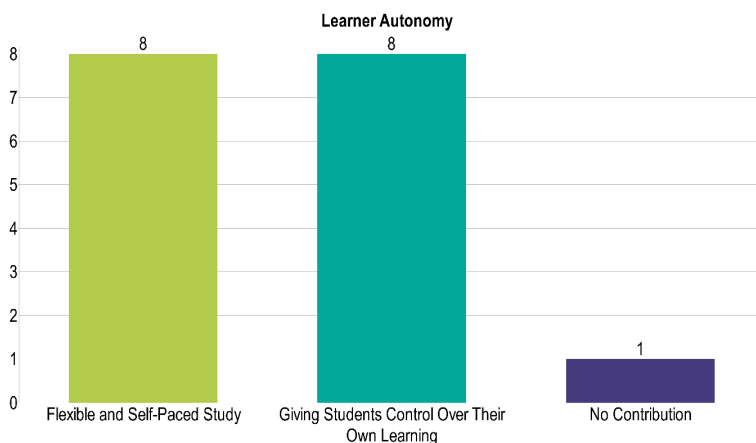

Figure 4. Frequency of coded sections regarding learner autonomy

As can be seen in Figure 4, the code flexible and self-paced study (f=8) and the code giving students control over their own learning (f=8) were emphasized equally by the students. However, there is also one student who considers that EIN-based blended learning had no contribution to their learner autonomy at all. The following are the students' perspectives on the emerging codes.

"Because it is mobile compatible, I may access it at any time, whether in the vehicle, at home, or on the road. That is, I may change my study at my own pace anytime I choose. For example, in school, we progress according to the pace of others, however, at EIN, I progress at my own pace. After all, it is mine to utilize anyway I see fit." (S5)

Some students emphasized that EIN-based blended learning gave them responsibility for their own learning:

"I believe students learn to take responsibility for themselves. For example, while we do not have a family to encourage us to study in the dormitory, we are inspired by EIN activities because we understand that we can do something on our own and take responsibility." (S14)

With the comment below, S4 stated that EIN-based blended learning does not promote learner autonomy:

"No, I don't believe so since, as I previously stated, I cannot enter the EIN portal everywhere due to technical issues, therefore I can't make a plan and study according to myself because I can't enter anytime I want." (S4)

Findings for Students' Perceptions Regarding Classroom Atmosphere

Table 6. Descriptive Statistics for the Classroom Atmosphere in EIN-Based Blended Learning

Relevant Items	n	M	SD
37. Preparing for face-to-face classes with EIN activities contributes significantly to my learning.	122	3.21	1.10
44. The EIN portal prepares us for face-to-face classes.	122	3.20	1.03
46. The activities on the EIN portal increase my effectiveness in face-to-face classes.	122	3.02	1.15
47. The activities on the EIN portal make me more competitive.	122	2.74	1.17

Table 6 illustrates that students exhibit neutral attitudes toward items related to the classroom environment, with mean values ranging from 2.74 to 3.21. In line with the questionnaire results, the analysis of student interviews shows that there are both opposing viewpoints and supporting arguments for the items regarding classroom atmosphere.
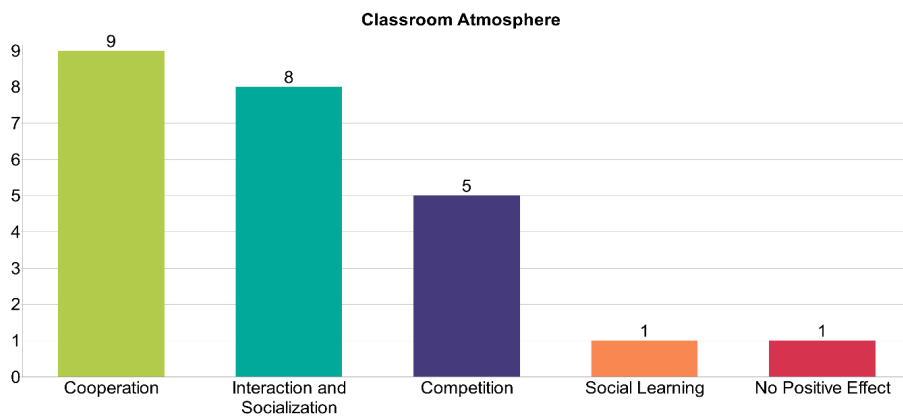

Figure 5. Frequency of coded sections regarding the classroom atmosphere

Figure 5 shows that the "cooperation" code (f=9) is the most mentioned one among the other codes regarding the classroom atmosphere. The "interaction and socialization" code (f=8) comes in second, followed by the "competition" code (f=5). Besides, the "social learning" (f=1) and "no positive effect" (f=1) codes were mentioned equally. The following are the thoughts that students had towards cooperation:

"I think it taught us to help one another when we couldn't accomplish anything ourselves." (S3)

Below are some of the comments made by students on the interaction and socialization:

"For example, you assign us homework, such as a video assignment linked to the unit theme. We finish the project and post it to the EIN, and then we can comment and like each other's videos; this provides socialization for us." (S11)

Students expressed their opinions on the competition as follows:

"It fosters a competitive environment. It's fun to strive to increase points; we compete against one another and keep in touch inside the EIN network." (S7)

S4 stated that EIN-based blended learning enhanced social learning in the following lines:

"Occasionally I realize that the assignments I post to the EIN portal assist my classmates, and sometimes when I submit my project later, of course, I notice I evaluate my friends' projects to understand how they prepare them." (S4)

On the other hand, S15 stated that it had no positive effect on the classroom atmosphere:

"I don't think it has any effect on the classroom atmosphere. Some students are unable to follow us in the classroom since they do not complete the activities on the EIN site. As a result, the unity we aim for is not accomplished fully, so it has no impact." (S15)

Findings for the Third Research Question Regarding Advantages

Table 7. Descriptive Statistics for the Advantages of EIN-Based Blended Learning

Relevant Items	n	M	SD
33. Learning English with the activities on the EIN portal is more engaging than those used in face-to-face classes.	122	2.30	1.08
35. Activities on the EIN portal are quite new and have different methods.	122	2.97	1.02
38. In my opinion, learning English through the EIN platform is a very effective method.	122	2.70	1.12
40. The activities on the EIN portal make it easier for me to learn the subject.	122	2.57	1.12
49. Studying via the computer or mobile devices is very convenient for me.	122	3.03	1.29

As shown by items 33 (M=2.30) and 40 (M=2.57) in Table 7, students do not agree that EIN portal activities are more engaging than face-to-face activities or that they facilitate learning the subject. On the other hand, they have neutral views towards effectiveness (M=2.70), the difference (M=2.97), and convenience (M=3.03) of the EIN portal activities. Overall, students do not perceive items 33 and 40 as advantages of EIN-based blended learning, although they do embrace items 35, 38, and 49 to some extent. During the interviews, qualitative results on the same sub-question mostly diverged from the quantitative data. Qualitative findings are presented below with the frequencies of codes in relation to the theme of the advantages.
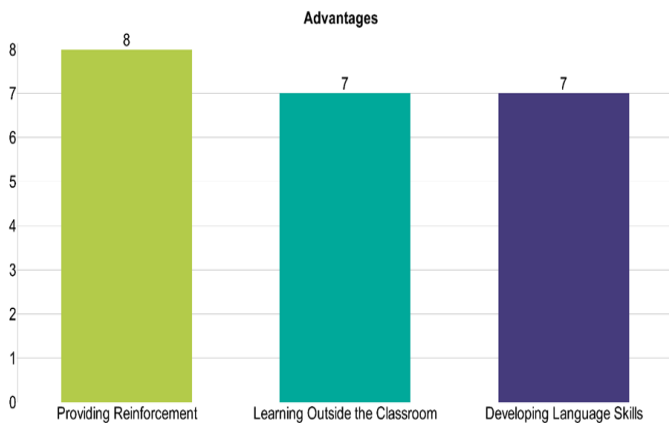

Figure 6. Frequency of coded sections regarding the advantages of EIN-based blended learning

Figure 6 shows that three different codes related to the advantages theme emerged. These codes include providing reinforcement (f=8), learning outside the classroom (f=7), and developing language skills (f=7). According to this data, the code "providing reinforcement" (f=8) has the highest number. Students expressed their ideas on how EIN-based blended learning reinforced them as follows:

"If it has been a month since we first learned a topic, watching the narrated video of that topic once more helped us to review that knowledge." (S8)

"Lesson videos, quizzes, and activities for reinforcement helped me a lot." (S3)

Regarding the additional benefits of EIN-based blended learning, students noted that they could continue learning outside of the classroom and improve their language skills in the following excerpts:

"Definitely beneficial for language learning. There are so many useful activities, and notably the listening texts we listen to improve our speaking abilities favourably since we hear the right pronunciation of words." (S7)

"Yes, since there are listening activities and so on... because the system shows the completion rate of the exercises, it makes me feel more driven, and I feel like I have to finish the exercises as my friends did, and I want to do them better, so it is good for me." (S14)

"It makes me more interested in English, for example, since I can do something that allows me to study English not just in the classroom but also outside of it." (S9)

Findings for the Third Research Question Regarding Disadvantages

Table 8. Descriptive Statistics for the Disadvantages of EIN-Based Blended Learning

Relevant Items	n	M	SD
36. For me, studying on the EIN portal is extremely difficult.	122	2.93	1.32
43. I get bored when I study on the EIN portal.	122	3.30	1.34
52. Activities on the EIN portal are annoying and pointless for me.	122	2.86	1.39

Table 8 indicates that learners partially agree that EIN-based blended learning has some disadvantages. Besides, learners find that getting bored during online activities (3.30) is the biggest disadvantage.
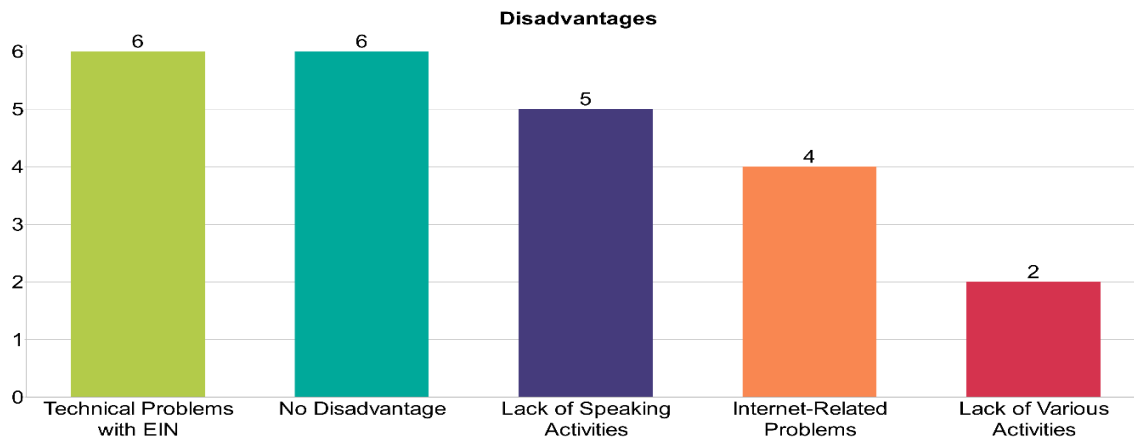

Figure 7. Frequency of coded sections regarding the disadvantages of EIN-based blended learning

Figure 7 shows the codes regarding the disadvantages of EIN-based blended learning. According to the findings, the most stated codes are the "technical problems with the EIN portal" (f=6) and the "no disadvantage" code (f=6). Besides, the code "lack of speaking activities" (f=5) comes second while "internet-related problems" (f=4) come third. On the other hand, the code in relation to the "lack of various activities" has got the lowest number (f=2), which means it is the least mentioned disadvantage by students.

Students provided their views on the following basic drawbacks of EIN-based blended learning:

"I believe there is a disadvantage. The site's interface is awful, it's not useful, and there are some bugs. As I previously stated, when you enter the application, the system logs you out without completing it, and you must enter it again; when this happens, I don't want to log in to the portal again, and it diminishes my motivation." (S6)

"Our attention is diverted by the lengthy delays in our activities or our incapacity to perform specific tasks." (S3)
Nonetheless, several students recognized no downside to EIN-based blended learning as seen by the following mentions:

"I don't believe it has a disadvantage; I mean, as long as you have access to the internet or other opportunities, it's really effective when we enter the portal, that is, it helps to our learning." (S7)

Students also mentioned the lack of speaking activities as a disadvantage:

"Well, first and foremost, I believe there should be exercises aimed at strengthening our speaking skills, as this is our only issue." (S12)

Another drawback identified by students is internet-related concerns. The following extracts from student interviews illustrate their points:

"I reside in the student dorm, and I'm having a lot of difficulties since there are internet connection issues, and even students who have a modem at home are experiencing problems. I believe that most of the issues stem from the internet connection." (S14)

"For students who stay in the countryside, it is a disadvantage as there are internet connection problems in villages." (S9)
Moreover, the following statement shows why EIN-based blended learning is thought to lack various activities:

"There are exercises, but they're all on the same theme and, in my opinion, there's not enough diversity." (S5).

DISCUSSION and CONCLUSION

The purpose of this study was to uncover EFL students' perceptions of EIN-based blended learning applied in a state high school. The findings proved that students had neutral views towards the blended learning implementation and favored face-to-face learning. This finding is in accordance with the previous studies (AI Zumor, 2013; Balci, 2017; Gamble, 2018; Oztas, 2022; Purnawarman et al., 2016; Yapici, 2019) which show that students have neutral views towards blended learning. The students' viewpoints on the use of the EIN portal, which was utilized as an LMS in blended learning, and the English activities it contains may be the primary explanation for this result since the EIN portal represents the online part of blended learning in the current study.

Furthermore, as for the second research question, the analyses of both quantitative and qualitative data indicated that students had neutral views toward the impact of EIN-based blended learning on language skills development, assessment, learner autonomy, and classroom atmosphere. As for the development of language skills through the EIN, the participant students of the current study reported that their perceptions were at a moderate level and this conclusion is in parallel with the prior research (Balci, 2017; Oztas, 2022; Yapici, 2019) that found the student had neutral views toward the development of language skills in the online environment. In terms of their most developed skills through the EIN portal, both the quantitative and the qualitative data revealed that students thought they improved their vocabulary the most (Gamble, 2018; Hos et al., 2016; Oztas, 2022; Yapici, 2019). Students may have thought this way since the course activities in EIN are mostly focused on vocabulary items, with few activities focusing on other language skills. In addition, according to the questionnaire findings, students also acknowledged that the EIN portal helped them enhance their grammar as well as their vocabulary.

Regarding the assessment, quantitative findings showed that students partially agree that online assessment aids their learning process while they find traditional assessments are more beneficial. This result reflects those of Balci (2017), Oztas (2022), Rianto (2020), and Yapici (2019) who also found that students' opinions of traditional assessment are more favourable compared to online assessment. Yet, the qualitative findings indicated more positive results about online assessment such as better learning, increased motivation, and interaction outside the classroom. This disparity in results could be attributed to students' evaluating their thoughts on the subject from a more in-depth perspective in semi-structured interviews. In addition, the fact that they focused on the teacher feedback they get via EIN may have resulted in more favourable results. This finding agrees with those obtained by Aksel (2021), Guclu (2018), and Snodin (2013) who concluded that students' perceptions of online assessment were quite favourable thanks to the personalized feedback they received from their teachers outside the classroom.

Another statistical finding regarding EIN-based blended learning is that students are in partial agreement with the impact of blended learning on fostering their autonomy (Yapici, 2019). Surprisingly, the findings from the interview demonstrated that students mostly focused on the benefits of blended learning in improving students' autonomy such as providing them with flexible and self-paced study in addition to giving them control over their own learning though there is still one opinion that it has no contribution on learner autonomy. These findings imply that the fact that there are both positive and negative opinions regarding learner autonomy may have led the questionnaire results to be neutral and the negative opinion might have stemmed from the fact that students who were unable to enter the portal at any time found blended learning challenging for personalized learning and developing their autonomy. However, the positive results from the interviews corroborate the findings of the previous work (Alabay, 2017; Banditvilai, 2016; Bitlis, 2011; Snodin, 2013) that indicated the online part of the blended learning developed students' autonomous learning.

The last sub-question of the second research question was related to the effect of blended learning on classroom atmosphere. For this question, quantitative findings unveiled that student had neutral attitudes toward the influence of blended learning on their classroom atmosphere. This result is consistent with the earlier finding by Yapici (2019) who also explored that student had unbiased views regarding the classroom atmosphere in a blended learning environment. Yet, this finding contrasts with that of Balci (2017), who discovered that the online component of blended learning did not improve students' in-class achievements and was not regarded as a supplemental tool. On the other hand, as mentioned by the students during the interviews, cooperation, interaction and socialization, competition, and social learning were the perceived contributions of blended learning to the classroom atmosphere even though it was emphasized by one student that it had no contribution to the classroom atmosphere at all. These findings reflect those of other studies (Mohamed, 2022; Sheet, 2019; Sahin-Kizil, 2014) which found that students believed blended learning to be beneficial in terms of enhancing their collaboration and interaction with each other. On the other hand, the negative result could be attributed to the fact that the student believed not all students followed the activities on the portal on a regular basis and thus blended learning was unable to create the same positive classroom environment for every student.

The third research question which is about the advantages and disadvantages of EIN-based blended learning revealed that students had neutral attitudes. On the other hand, students mentioned providing reinforcement, learning outside the classroom, and developing language skills as the advantages of blended learning during the interviews. These results match to some extent those observed in earlier studies (Banditvilai, 2016; Hos et al., 2016; Mohamed, 2022; Rachman et al., 2021; Wang et al., 2021) which discovered that students thought blended learning improved their language skills and learning outside the classroom. The disparity between quantitative and qualitative findings could be explained by the fact that students continued to prefer face-to-face learning, and some students found the EIN portal difficult to use owing to technical challenges and a lack of various activities.

Concerning the disadvantages, the findings of the questionnaire were consistent with the findings by Oztas (2022) and Yapici (2019) indicating that students had both positive and negative feelings for the disadvantages. Nevertheless, content analysis of the semi-structured interviews with students demonstrated that it was equally cited by students that there were technical problems and there

were no disadvantages. This result can be explained by the fact that students who can easily access the internet and do not experience technical problems at home think that there is no disadvantage, while other students who have problems in viewing or completing activities believe that technical problems are the biggest disadvantage. This result is in line with those of previous studies (Rianto, 2020; Rojabi, 2019; AI Zumor et al., 2013) that concluded technical problems, inadequate infrastructure and inconsistent internet connection problems were the main disadvantages perceived by the students. Nonetheless, this finding is contrary to those of earlier studies (Kilic, 2020; Pehlivan, 2020) which found that middle school and primary school students who took English classes supported with EIN portal activities had favourable attitudes towards the implementation of the EIN portal. Furthermore, the other disadvantages listed by interviewed students are lack of speaking activities, internet-related problems, and lack of various activities. There are similarities between the attitudes expressed by students in this study and those described by students in the study by Tuysuz and Cimen (2016) as the EIN portal was expected to have additional games and fun educational activities.

IMPLICATIONS and LIMITATIONS

Based on the findings and the related discussion, this study offers several implications for English language teachers, EFL learners, and EIN course and material developers for potential future pedagogical practice.

- The initial action plan of the authorities responsible for the EIN portal should be to upgrade its infrastructure and make it more user-friendly so that users can access and complete the activities without waiting and being distracted and teachers can implement blended learning more successfully. Additionally, EIN English content needs to be enriched and diversified in accordance with the curriculum of each grade.
- Keeping in mind that the digital divide is still persistent among some students, it is critical for the success of blended learning settings that each school is equipped with a computer classroom with internet connectivity that students can easily access and use.
- It is beneficial for EFL students to complete online activities on EIN since it aids in the development of language abilities, provides them with teacher feedback, promotes cooperation, interaction, and socialization in the classroom, and contributes to increasing their motivation and autonomy.

Lastly, the current study has inevitable constraints that make it challenging to generalize to other situations and some suggestions for prospective studies in this field.

- This study employed the EIN portal as an LMS for the online component of blended learning, thus the participants' perspectives on the EIN portal dominated their views regarding the online part. Prospective studies are suggested to implement different LMSs into blended learning environments to get various viewpoints.
- The sample of this study was limited to 122 high school students; subsequent studies on this subject are recommended to be carried out with secondary and elementary school pupils with a larger sample.
- Given that the implementation period was only 8 weeks, prospective research should be conducted over a longer time.
- This study only included students' perceptions of EIN-based blended learning; future studies may benefit from including teachers' perspectives on EIN-based blended learning as well.

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