

**REPUBLIC OF TURKEY  
ÇUKUROVA UNIVERSITY  
INSTITUTE OF SOCIAL SCIENCES  
DEPARTMENT OF ENGLISH LANGUAGE TEACHING**

**EFL STUDENTS' AND TEACHERS' PERCEPTIONS OF EDUCATIONAL  
INFORMATICS NETWORK LIVE CLASS APPLICATIONS DURING ONLINE**

**Remzi BALCI**

**MASTER OF ARTS**

**ADANA / 2021**

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EDUCATION**

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**MASTER OF ARTS**

**ADANA / 2021**

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## ÖZET

# ÇEVİRİMİÇİ EĞİTİM DÖNEMİNDE YABANCI DİL OLARAK İNGİLİZCE ÖĞRENCİLERİ VE ÖĞRETMENLERİNİN EĞİTİM BİLİŞİM AĞI CANLI DERS UYGULAMALARI HAKKINDAKİ ALGILARI

**Remzi BALCI**

**Yüksek Lisans Tezi, İngiliz Dili Eğitimi Anabilim Dalı**

**Danışman: Prof. Dr. Yasemin KIRKGÖZ**

**Haziran 2021, 121 sayfa**

Eğitim teknolojisi yıllardır eğitim paydaşları arasında büyük önem kazanmakta ve birçok ülke eğitim teknolojisi alanındaki gelişmeleri kademeli olarak eğitim sistemlerine entegre etmek için çalışmaktadır. Ancak, Covid-19 salgını eşi benzeri görülmemiş bir eğitim krizine neden olmuş ve neredeyse tüm ülkeler yüz yüze eğitim faaliyetlerini askıya almaya ve sanal veya canlı sınıflar aracılığıyla uygulanan çevrimiçi eğitimle devam etmeye karar vermiştir. Geleneksel yüz yüze eğitimden çevrimiçi eğitime bu ani geçiş her sorunu çözecek midir? Bu soru ve tüm sınıf düzeylerinde yabancı dil eğitimi bağlamında çevrimiçi eğitimin olası sonuçları güncel bir tartışma konusudur. Bu nedenle, bu çalışmanın başlıca amacı, hem yabancı dil olarak İngilizce öğrencilerinin hem de öğretmenlerinin çevrimiçi dil öğrenme/öğretme bağlamında Eğitim Bilişim Ağı (EBA) Canlı Ders Uygulaması'nın (CDU) zorluklarına ve faydalarına yönelik algılarının bulgularını ve ayrıntılarını ortaya çıkarmaktır. Çalışmanın bir diğer amacı ise, öğrencilerin sınıf düzeyi, cinsiyet ve eğitim aldıkları okul türüne göre görüş farklılıklarını ve İngilizce öğretmenlerinin cinsiyet, yaş, eğitim durumu, öğretmenlik deneyimi ve görev yaptığı okul türü değişkenlerine bağlı olarak algınlıklarında önemli bir farklılık olup olmadığını karma desen araştırma yöntemiyle incelemektir. Bu çalışmanın belirlenen bağlamı, Milli Eğitim Bakanlığı'na (MEB) bağlı tüm ilkökul, ortaokul ve liselerdir. Bu çalışmanın bulgularına göre, katılımcılar canlı ders uygulamasının derslerde e-içeriklerden faydalanmak ve zaman tasarrufu sağlamakla esnek olmak gibi belli başlı faydalar sunduğuna inanmaktadır. Bunun yanı sıra, araştırma sonuçları, hem öğretmenlerin hem de öğrencilerin internet bağlantısı ve elektrik kesintileri gibi başlıca teknik sorunlarla karşılaştıklarını göstermektedir. Son

olarak, tüm katılımcılar yüz yüze eğitimin sadece yabancı dil eğitimi için değil, tüm eğitim faaliyetleri için gerekli olduğunu ileri sürmüştür.

**Anahtar Kelimeler:** Eğitim Bilişim Ağı, EBA, Canlı Ders Uygulaması, CDU, FATİH Projesi, Eğitim Teknolojisi, Sanal Sınıf, Yabancı Dil Eğitimi



**ABSTRACT****EFL STUDENTS' AND TEACHERS' PERCEPTIONS OF EDUCATIONAL  
INFORMATICS NETWORK LIVE CLASS APPLICATIONS DURING ONLINE  
EDUCATION****Remzi BALCI****Master Thesis, Department of English Language Teaching****Supervisor: Prof. Dr. Yasemin KIRKGÖZ****June 2021, 121 pages**

Educational technology has been gaining great significance among the stakeholders of education for years, and several countries have been working on integrating the developments in the field of educational technology into their education systems gradually. However, the Covid-19 pandemic has caused an unprecedented education crisis, and nearly all countries have decided to suspend their face-to-face education activities and proceed with online education implemented through virtual or live classes. Is this sudden shift from traditional face-to-face education to online education a panacea? This question and the possible outcomes of online education in terms of foreign language education in all grades remain controversial. Therefore, the main objective of this study is to reveal the findings and details of both EFL students' and teachers' perceptions of the challenges and benefits of Educational Informatics Network (EIN) Live Class Application (LCA) by means of online language learning/teaching process. Another purpose of the study is to investigate the differences in opinions of students in terms of their grade, gender and type of school, and whether there is a significant difference in the perceptions of EFL teachers with regards to their gender, age, educational status, teaching experience, and type of school through a mixed methods research design. The specific context of this study is all primary, secondary, and high schools affiliated with the Ministry of National Education (MoNE). The findings of the study have demonstrated that participants believe live class application offers certain benefits such as making use of e-contents during classes and its' being time-saving and flexible. On the other hand, the findings also suggest that both teachers and students encounter several flaws mainly based on technical problems including

internet connection problems and power cuts. Finally, participants unanimously allege that face-to-face education is necessary not solely for language education but for all educational activities.

**Key Words:** Educational Informatics Network, EIN, Live Class Application, LCA, FATIH Project, Educational Technology, Virtual Class, Foreign Language Education



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**LIST OF ABBREVIATIONS**

**CALL:** Computer Assisted Language Learning

**CDU:** Canlı Ders Uygulaması

**EBA:** Eğitim Bilişim Ağı

**EFL:** English as a Foreign Language

**EIN:** Educational Informatics Network

**ELT:** English Language Teaching

**FATİH Project:** Movement of Enhancing Opportunities and Improving Technology  
Project

**ICT:** Information and Communication Technology

**IT:** Internet Technology

**LCA:** Live Class Application

**MoNE:** Ministry of National Education in Turkey

**WHO:** World Health Organization

**YEGİTEK:** General Directorate of Innovation and Educational Technologies

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## CHAPTER I

### INTRODUCTION

#### 1.1. Background of the Study

On January 7, 2020, the World Health Organization (WHO) announced that a respiratory disease was emerging in China. With the declaration of a “global emergency” on January 30, 2020, the governments have been obliged to take precautions to stop the spread of the virus by declaring curfews, partially or entirely, and travel restrictions, most importantly closing educational facilities due to the Covid-19 pandemic. An unprecedented educational crisis has been caused by the closure of schools in the entire world. With the closure of school facilities, plenty of countries have decided to proceed with online learning in order to prevent students’ learning loss along with maintaining their and the whole societies’ health. Like many countries in the world, Turkey has also closed schools on March 12, 2020, across the country, and accordingly, the online learning process has started via Educational Informatics Network (EIN) Live Class Application (LCA). EIN is an interactive educational platform developed by the General Directorate of Innovation and Educational Technologies as a part of the FATİH Project which was introduced in 2011 by the Ministry of National Education (MoNE). This Project has five essential components listed below (FATİH Project, 2021):

- 1) Providing Hardware and Software Infrastructure,
- 2) Providing and Managing the Educational e-Content,
- 3) Efficient Internet Technology (IT) Use in Curriculum,
- 4) In-service Training for Teachers,
- 5) Ensuring the Conscious, Safe, Manageable, and Measurable Use of ITs.

As an essential component of the project, EIN was developed to be used as an online educational platform and a technological innovation integrated with teaching and learning environments. According to FATİH Project, EIN involves main applications and modules such as EIN Market, EIN Search, EIN Course, EIN Library, EIN Exam Center, and Content Development Tools (Kurnaz, 2020). In 2019, new modules were added to the platform including EIN e-Portfolio, EIN Academic Support, and EIN

Career Development for teachers (MoNE, 2019). After the closure of schools due to the Covid-19 outbreak, EİN Live Class Application was added to the platform for only the 8<sup>th</sup> and 12<sup>th</sup> graders on 13 April 2020 (MoNE, 2020a). The scope of the application has gradually been broadened to all grades by improving the number of classes that could be held concurrently. According to the report published by the MoNE, 150,000 live classes were held during the first week of the application with the 8<sup>th</sup> and 12<sup>th</sup> graders across the country (MoNE, 2020b). With the latest improvements and the integration of alternative applications such as Zoom, Google Meet, and Skype into the EİN Live Class System, the capacity of daily online classes has been increased up to 3 million which could be used for all grades (MoNE, 2021a). As the integration of technology into the education system has been increasing all around the world, there are many opportunities for both students and teachers afforded by the technology. As Grismore (2012) states the effective integration of technology into education offers teachers and students more than just accessing the information through the Internet. These opportunities include meeting the learning needs of students with different learning styles, ensuring a high level of academic success, helping students to take responsibility for their own learning, and increasing student participation (Grismore, 2012). In addition to these utilities, thanks to technology, Online Learning Environments (OLEs) have been developed and learning/teaching processes have been taken beyond the education facilities. However, the effectiveness, benefits, and potential challenges of these OLEs are issues that need to be addressed.

Concerning this background information, this thesis focuses on the perceived benefits and potential challenges of EİN LCA in terms of online language learning/teaching by both English as a Foreign Language (EFL) students and EFL teachers. Moreover, the effects of the particular variables of gender, grade, and type of school on students' perceptions, and the effects of the gender, age, educational status, teaching experience, type of school, and the availability of in-service training on how to use EİN LCA on teachers' perceptions of EİN LCA are studied in this research.

## **1.2. Statement of the Problem**

As most of the countries worldwide whose education systems have been trying to respond to the pandemic conditions, Turkey has also started the online learning process as quickly as possible to prevent students' loss of learning and limit the physical

proximity in the schools. Accordingly, EIN Live Class Application was developed and brought into use gradually by the MoNE. This application is a software itself as well as being integrated with alternative applications to advance its capacity. However, this application requires specific hardware devices and an internet connection in order to be able to participate in live classes, yet many students might have difficulty in having the necessary devices or a proper internet connection, especially in rural areas. Furthermore, the effectiveness, benefits, and challenges of online learning are being questioned by all stakeholders of education. Therefore, these problems are the main points of this study regarding the perceived benefits and potential challenges of EIN LCA in terms of online language learning/teaching by both students and teachers.

### **1.3. Purpose of the Study**

This research is a mixed-methods study collecting both quantitative and qualitative data. The study investigates the students' and teachers' perceptions about the benefits and challenges of online language learning which is held via EIN LCA. According to Creswell (2008), when both quantitative and qualitative research are brought together, the strengths of both approaches are combined, leading, presumably, to a better understanding of research problems than either approach alone. Therefore, the explanatory sequential research design is used in this study. This research design includes collecting the quantitative data first and then explaining the findings concerning qualitative data. The questionnaire and structured interview are used as appropriate and applicable methods to gather data in this study. In the context of this study, it is significant to collect opinions and perceptions of as many EFL students and teachers as possible during the pandemic. Therefore, firstly, the questionnaire is conducted to collect quantitative data with both EFL students and EFL teachers and then in the second part of data collection, written interviews are applied according to the results of the questionnaires in order to obtain detailed information with the participation of a group of EFL students and teachers on their perceptions about EIN LCA.

This research seeks answers to the following research questions:

1. What are the EFL students' perspectives on online language learning through the EIN Live Class Application in terms of its

- a) benefits and
  - b) potential challenges?
2. Do gender, grade, and type of school affect EFL students' perceptions of EIN LCA in terms of its benefits and challenges?
  3. What are the EFL teachers' perspectives on online language teaching through the EIN Live Class Application in terms of its
    - a) benefits
    - b) potential challenges?
  4. Do gender, age, educational status, teaching experience, and type of school affect EFL teachers' perceptions of EIN LCA in terms of its benefits and potential challenges?

#### **1.4. Significance of the Study**

This study is significant in revealing the findings and details of both participant EFL students' and teachers' perceptions of the challenges and benefits of EIN LCA in the online language learning/teaching process through a mixed methods research design. In this regard, the literature review suggests that most of the previous studies (Aktay & Keskin, 2016; Demir, Özdiñ & Ünal, 2018; Maden & Önal, 2018) were interested in teachers' perspectives of the EIN platform and the effectiveness of online learning while this study presents in-depth analysis from the perspectives of both EFL students and teachers about the benefits and potential challenges of EIN LCA in online language learning and teaching.

#### **1.5. Assumptions**

It is assumed that this study will be objective, valid and reliable in all its aspects because it was piloted beforehand, and the opinions of the participants were analyzed without prejudice. Moreover, the data collected for this study will not be shared and be kept only for this study. The responses and opinions of the students and teachers are reliable as well because there was no pressure to participate in the study; only volunteer ones participated. Furthermore, the perceptions of the participant EFL students and teachers are consistent within the scope of the objectives of the study because the EIN live class application is implemented in all schools affiliated with the MoNE.

## 1.6. Limitations of the Study

The present study was applied only in Hatay city of Turkey; therefore, the findings might not be generalized due to the fact that the living conditions of the region and the characteristics of the participants might be different compared to other parts of the country, and this may affect the perceptions of the participants on the benefits and challenges of EIN live classes. Furthermore, more participants could be involved in the study to obtain more detailed data. Another limitation is that this study was carried out during the Covid-19 pandemic; thus, the perceptions of the participants may be under the effect of pandemic conditions.

## 1.7. Definitions

The operational definitions and their explanations used in this study are listed as follows:

**EIN (*EBA in Turkish*):** As an online social educational learning platform, EIN (*Educational Informatics Network*), also known as EBA (*Eğitim Bilişim Ağı*) in Turkey, was founded to disseminate the course e-content to be used in cooperation with the FATİH Project (EBA, 2019). The abbreviation of “EBA” is used with reference to “EIN” throughout the study.

**LCA (*Live Class Application*):** It is a subcategory of EIN which enables students and teachers to have live classes. There is also a mobile application to have live classes called VClass developed by the MoNE. Students and teachers can have synchronous classes through this application.

**Educational Learning Platform:** A system that provides integrated support for the six activities: creation, organization, delivery, communication, collaboration, and assessment- in an educational context (Piotrowski, 2010). Educational learning platforms provide connections between students and teachers.

**Educational Technology:** It refers to the study and ethical practice of supporting learning and improving performance through the creation, use, and management of technological processes and resources (AECT, 2008). The integration of technology into education created the educational technology concept. Educational technology supports educational activities with innovations in the field.

**EFL Student:** It refers to one who learns English as a foreign language. Moreover, learners who attend English classes in non-native English-speaking countries. The term refers to students who attend English language classes in Turkey in the context of this thesis.

**EFL Teacher:** This term means one who teaches English as a foreign language. Teachers who teach English in non-native English-speaking countries. The term refers to English teachers working in a city in Turkey in the context of this thesis.

**FATİH Project:** It is a project implemented in Turkey by the Ministry of National Education. The project seeks to integrate state-of-the-art information and computer technology into Turkey's public education system (FATİH Project, 2021). Furthermore, it is the current educational initiative to enhance the quality of education in Turkey.

**Internet Connection:** It is the process of connecting to the internet using personal computers, laptops, or mobile devices by users or enterprises (Techopedia, 2016). When used in this thesis, it refers to internet access required for live classes by the EFL teachers and students.

**Ministry of National Education (MoNE):** It refers to the Ministry of National Education in Turkey throughout this study. It is the ministry that is responsible for the educational activities in Turkey. Fundamental and compulsory education grades including primary, secondary, and high schools are in the jurisdiction of the MoNE.

**Online Learning Environments (OLEs):** It refers to the e-learning environment with no physical location and is supported by hardware and software infrastructure throughout this study. OLEs enable students and teachers to have classes and proceed with educational activities regardless of time and location.

## CHAPTER II

### LITERATURE REVIEW

Essential concepts and a review of the literature are introduced in this chapter. Educational technology and its use in foreign language education are presented, respectively. Furthermore, examples of educational platforms from different countries in the world and the Educational Informatics Network (EIN) are presented.

#### 2.1. Educational Technology

Technology began its journey to affect our daily life a long time ago; therefore, its integration with education was an inevitable end to keep up with the latest developments in every aspect of human life. Both technology and education are significant for the entire world. Technology is developed rapidly, and it constantly alters the whole world and beyond. As a result, change and development become inevitable in every field, especially in education; otherwise, humanity will not survive (Tobin, 1984). As we are in a competitive world and rapid developments in technology affect education systems of all countries, teaching and learning environments and tools are changing accordingly (Arpaci & Gürbüz, 2011). Currently, traditional teaching methods are accepted to be insufficient, and novel methods and instruments are needed, leading to the emergence of the term educational technology (Alabay, 2015). Since the integration of technology into education has gained significant importance over time, educational activities need to be shaped in the same direction with technological developments (Amiel & Reeves, 2008). With the recent developments in the integration of technology into education, teachers can create a virtual setting that goes beyond the traditional methods, which are sometimes accepted as boundaries, and have a global classroom to teach their students (Kumari, 1998).

Education and technology play a significant role in enhancing the quality of human life. Education is a concept that serves to reveal the inner power and abilities of human beings and helps them to be more mature, creative, productive, and stronger intellectually in their personal development process. On the other hand, technology supports human beings to benefit from the skills and knowledge they acquire through education more effectively and efficiently and to apply them more systematically and reasonably. Therefore, educational technology has been an essential factor in helping

people to be more powerful and dominant against nature and their environment (Alkan, 2011).

The concept of educational technology refers to the discipline that investigates using educational resources effectively. It helps education stakeholders to reach the main goals of educational policies (Çilenti, 1998). It is stated by Alkan (2011) that educational technology is the concept of making learning and teaching processes functionally structured by using relevant knowledge and skills to have control over education in general and learning in particular.

The essential aim of educational technology is to combine theoretical knowledge in educational sciences with technological innovations. Both educational sciences and technology are constantly developing, and it is crucial to combine their developments and innovations in order to benefit from educational technology more effectively and comprehensively. The primary function of educational technology is to bridge between theory and practice because it is accepted as a discipline that provides functional integrity between educational sciences and education and training applications (Ünal & Kürüm, 2009).

## **2.2. Technology Use in Language Education**

With the rapid development of educational technology worldwide, the significance of using it in all disciplines of education has become inevitable. Language teaching through educational technology instruments has become one of the pioneers in the education field, and it has gained popularity among all countries. There have been tremendous changes in language education processes in recent years (Shrestha, 2014). Furthermore, information and communication technologies (ICTs) have played an important role in the development of language education including English language teaching (Chapelle, 2010). Shrestha (2014) states that using ICTs in language education has led to the establishment of Computer-Assisted Language Learning (CALL). Thanks to the availability of ICTs, regardless of time and location, their practical use in English language education has gained importance and started to be used widely by educators (Chik, 2013). Developments in educational technology in language education help language teachers to benefit from a variety of instructional modes such as videos, images, audios, etc., that motivate students to learn a foreign language. It is believed

that these CALL-related technologies may help students improve their language skills (Khoshnevisan, 2021).

Following the latest developments in the field of educational technology, interactive websites and language applications have started to be used widely by EFL teachers. Due to the frequent use of personal computers and smartphones, various language applications and interactive websites for EFL learning and teaching have become increasingly popular. Furthermore, the interest in language applications by designers is increasing because these applications are easy to access regardless of time and location to search for information, and they enable language learners to find the meanings of unknown vocabulary or collocations easily (Yurdagül & Öz, 2018). These technological tools, including interactive websites and language applications, are also widely used since they appeal to students with different learning styles, they meet the learning needs of individuals, and increase their motivation (Liu, 2016). However, the advantages of these language applications and interactive websites are not limited to accessing information easily and practicing a foreign language. Most of these interactive websites and language applications have been developed by adding live class features during the Covid-19 outbreak, and many countries have started to use these applications in order to be able to continue their academic year because most of the countries had to suspend face-to-face education. Thanks to these websites and applications, education extends beyond the boundaries of school, and both teachers and students are offered the opportunity to continue their teaching and learning in unprecedented situations.

Besides the benefits of educational technology, there are some negative aspects and challenges of it in education such as a decrease in younger generations' writing ability, which is a controversial issue because it is argued that coding and typing might place the physical writing action in the future, focusing problems and deterioration in learners' thought and imagination (Raja & Nagasubramani, 2018). Moreover, Aggen (2012) mentions that students are exposed to communicating with machines instead of their teachers and classmates, and this may cause them to have low speech skills in society, and they suffer from a lack of focus in their classes. Furthermore, Alam (2020) lists five possible challenges of online education: first, adaptability problems because it is the first experience to get connected with live classes; second, interruptions occurred during live classes because of poor internet connection, especially in rural areas; third, lack of knowledge on handling technological devices such as computers and smartphones by students, teachers, and parents, forth, time managements problems

because many live class applications offer a limited time, and finally classroom management problems faced by teachers during live classes.

The use of technology in language education has been growing in all countries, especially after the Covid-19 outbreak. A sudden switch to having classes online has inevitable consequences. Education stakeholders have both beneficial and challenging features; that is why it is a very controversial topic nowadays and needs to be researched. A variety of applications are implemented by governments, and each offers different qualifications. These qualifications vary from application to application. Some applications provide live classes to their users, and others are solely used as an educational platform that functions as social media networks where users could share posts with each other. Examples of these applications used by different countries are presented in the next section.

### **2.3. Educational Technology in the World**

It is considered that social media, one of the developing technologies, “offers a great potential to be used as a formal and informal learning tool” (Akın, Ergem, Güleröğlü & Gürbüz, 2013, p. 697). Therefore, several countries started to develop and implement educational platforms to increase the quality of their educational systems. The U.S.A has been the first country to start technology use in education and integrate it into its educational programs. Different countries such as England, Canada, Singapore, New Zealand, Brazil, India, Egypt, and Turkey have followed this attempt and started to integrate technology into their educational programs (Bardakçı & Keser, 2017). Countries like Argentina, Australia, Finland, and Portugal have also started to use educational applications within the context of technology integration into education.

#### **2.3.1. The U.S.A.**

Khan Academy was founded in the United States of America by Salman Khan in 2006, and it became one of the world’s most significant educational platforms. It was developed by a group of experts from the field of education in order to offer quality education not solely to American students but to everyone from worldwide for free. For this objective, it was translated into many languages such as Portuguese, French, Turkish and Spanish. Khan Academy offers many subjects for all grades starting from primary school to university students. Furthermore, practice exercises, instructional

videos for every subject from science to history, and personalized learning programs are offered to learners in order to help with their studies. This platform can be used both in the classroom and in any place where learners need it (Khan Academy, 2021).

### **2.3.2. Argentina**

With the Educ.ar Project, the Ministry of Education in Argentina has provided net-books that have the necessary applications as set up for students. Thanks to these applications and Educ.ar educational platform; students, directors, teachers, and families are offered activities, articles, literature, and pedagogical materials in E-book or textbook formats. One of the main reasons for offering the platform to families is to involve parents in the learning process of their children. The platform provides:

- Audiovisual materials,
- Thematic Clips,
- Documentaries,
- Resources to work in the classroom,
- Audio-books,
- Podcasts,
- Historical Archive Material,
- Narrations, Music, and Audios in foreign languages (Educ. ar, 2021).

There are also interactive resources including educational content and resources in new formats to teach and learn innovatively. In addition to these features, the platform enables teachers and students to have virtual classes during the digital education process, and a set of tools can be used to have live classes. It also offers the necessary training for teachers and students through video tutorials through its platform. Finally, the platform can only be used in Spanish (Educ. ar, 2021).

### **2.3.3. Australia**

The national digital educational platform of Australia is called Scootle, and it provides online learning features compatible with the main characteristics of the Australian Curriculum. All education stakeholders including teachers, school

administrators, and students countrywide can access this platform. The online resources used in education in Scootle are as follows:

- Interactive and multi-media resources,
- Audio, photo and video resources,
- Open-ended tools for teachers and students to create learning resources,
- Interactive assessment resources,
- Work samples,
- Collections of curriculum resources,
- Teacher ideas and units of work.

The platform offers online resources to increase the effective use of the published Australian Curriculum for specific subjects such as science, math, history, and English. The Australian Curriculum can also be found on the platform. Thanks to Scootle, teachers can prepare a personalized learning program for their students, and students can access these programs called “learning path” regardless of time and location. There are two sub-categories that teachers and students can access in the platform, which are “Scootle Community ” and “Language Learning Space.” The online tools and resources provided in these subcategories are developed mainly by Education Services Australia (ESA) which is responsible for the development and offering of the resources in Australia (Scootle, 2021).

#### **2.3.4. Finland**

After the Finland government announced its decision on using Information and Communication Technologies (ICTs) in education, the Finnish National Agency for Education designed and brought an educational platform called Edu.fi into use by students and teachers. The purpose of this platform is to provide all online educational resources to students and teachers. E-learning materials are offered in this platform to increase the quality of education with the objectives of increasing interaction in classes, preparing individual learning programs, providing efficient feedback, and enhancing collaboration between students and teachers. The platform also provides all the necessary information about the Finnish educational system and its core goals in education. The English version of the platform is available for international students as

well (Edu.fi, 2021). However, this platform does not offer live class features; therefore, teachers in Finland are using different applications such as Qridi, Zoom, Teams by Microsoft, and WhatsApp (Life & Society, 2021).

### **2.3.5. Portugal**

Portugal invested in ICTs in education and developed a transformation policy to ensure social equality through universal access to education. Thus, the e-school initiative, which was one of the most comprehensive educational technology programs in the world, started to be applied in the country. This program aimed to provide students and teachers with personal computers and internet connections. Many teachers across the country had in-service training within the context of this program. Furthermore, the students of the country were provided with comprehensive orientation training. The objective of this program was to introduce the educational technology of the countries around the world thanks to computers and the internet. In addition to this, students were enabled to access interactive educational resources through the interactive website E.escola 2.0. E.escola is a digital learning network that includes interactive resources to help teachers improve their teaching skills and offer students easy access to information (E.escola 2.0 initiative, 2021).

### **2.4. Educational Informatics Network (EIN)**

The concept of educational technology can be accepted as innovative in Turkey because its implementation into the Turkish education system does not date back a long time. The MoNE is responsible for the preparation and implementation of materials in both state and private schools in Turkey, and the process of the integration of technology into education is also administered by the same institution. Like many countries in the world, Turkey has started the technological transformation in education with the implementation of ICTs in the education system. The first realization of educational technology in Turkey was the initiative of the “Computer-Aided Education Project” launched in 1988. The objective of this project was to enhance the quality of computer education, but its scope was expanded to computer-aided education (Yılmaz, 2011). After this initial attempt in educational technology implementation in the education system, several different projects such as the National Education Development Project, the Catching the Era in Education 2000, Intel Teacher Education

Project, Basic Education Support Project, and 100% Support to Education Campaign were launched respectively (Yılmaz, 2011). However, the most comprehensive initiative in educational technology called the FATİH Project was introduced and started to be applied in 2010. This project attempts to provide equal opportunities for students and develop the technological infrastructure in schools to appeal to students with different learning styles during their educational process. The FATİH Project consists of five essential principles (FATİH Project, 2021):

**Accessibility:** It can be accessed regardless of time and location.

**Productivity:** It offers productive and target-oriented learning environments.

**Equality (Equal Opportunities):** It aims to provide the best service for all users.

**Measurability:** It provides reliable measurements and outcomes of the process and gives efficient feedback to evaluate the development properly.

**Quality:** It endeavors to increase the education quality.

The FATİH Project also provides e-content and educational platforms for students and teachers, and it has four main components including the essential objectives to be achieved as follows (FATİH Project, 2021):

1. Supporting the domestic production of goods and increasing added-value by researching and developing new technologies,
2. Providing hardware, software and network infrastructure, e-content materials, and a broadband internet connection to all schools in Turkey,
3. Improving both teachers' and students' analytical thinking, collaboration, effective communication, problem-solving, and technology use skills, which are accepted as 21<sup>st</sup>-century citizenship skills,
4. Enabling students and teachers to access information easily and enhancing information technology in schools.

Within the scope of the main components of the FATİH Project, Turkey's current and comprehensive educational platform, the Educational Informatics Network (EIN, also referred to as "EBA" in this research), was founded. The operations of EIN were started in 2011 by the MoNE, and it has been constantly developed to offer

practical and interactive content compatible with the core objectives of curriculums of all disciplines taught in Turkey. The MoNE introduced the “Education Vision 2023” in 2018, and the objectives of EİN were mentioned in the second step of the goals section of foreign language education. According to these goals, students will be offered videos prepared by native speakers of English, French and German to be involved in the English-speaking world. Students are also provided with digital learning environments in order to improve their foreign language skills. Therefore, it is aimed to supply innovative and digital resources from both international and national providers to enrich the contents and materials provided in EİN (MoNE, 2021b). Taking these objectives stated by the MoNE into consideration, it is evident that EİN has the potential to be developed and used in the Turkish education system.

EİN platform consists of a variety of modules and portals to be used by students and teachers. These modules and portals along with their features, objectives, and functions are introduced in the following chapters. These modules are EİN Main Page, Lessons, Live Class Application, Test Center, Library, Lists, Assignments, Reports, Career Development, Academic Support, Groups, Portfolios, Personal Files, Calendar, e-Content Production, and The System Questions and Exams. The platform also provides some portals such as Language Learning Portal, Cyber Security Portal, and Pre-School Education Portal. Furthermore, there are some applications offered to the use of teachers, students, and parents, which are designed and provided by the Directorate-General for Innovation and Educational Technologies (YEGİTEK). These applications are EİN Application, EİN Academic Support, EİN VClass (Virtual Class) Application, and EİN Guess What Application.

The EİN Platform can be reached via the website “<https://www.EBA.gov.tr/#/anasayfa>.” The homepage appears as in Figure 1.

Figure 1. EIN Homepage

Source: EIN, 2021

After logging into this page, students, teachers, and parents can continue with the EIN educational platform by verifying their username and password, or they can reach the above-stated portals and materials produced by both the relevant directorate of the MoNE and private publishers. The platform also enables teachers to produce or upload their own materials and share them with students and colleagues. The design and contents of the platform are constantly being developed to keep up with the latest improvements in education technology. The current modules and sections of EIN are listed in the following section:

#### 2.4.1. EIN Main Page

EIN Main Page is the first page that appears when signing in with the username and password by the users. This page shows the personal information of the user, message inbox, and notifications about the relevant posts to the user, the modules in the platform, a search bar, a section to post messages or start discussions, calendar, assigned studies, upcoming events, and current discussion started by users. The points that users get for their activities in the platform are shown under their profile pictures; a user can get points by visiting the platform or completing assignments, watching videos, or checking the reports section. These points are used to motivate the users to spend more time on the platform and use it more actively. Apart from this personal information, the

live class invitations made or assignments sent by teachers are also listed starting from the newest to the oldest. Every school has its own page, and none of the users can interfere with another school's page. The posts shared on this page can be liked or commented on by students and other teachers in the school. Figure 2 shows the main page including the personal information of a teacher user and the features stated above.

The screenshot displays the EİN (Eğitim İhtiyaçları) main page for a teacher named Remzi Balcı. The page is divided into several sections:

- Header:** Includes the EİN logo, a search bar, and the user's name 'Remzi Balcı'.
- Profile:** Shows the teacher's profile picture, name 'Remzi Balcı', and a score of '3867 puan'. Below the name is the school information: 'Abdurrâhman Gülizar Karadeniz Çok Programlı Anadolu Lisesi'.
- Navigation Menu:** A vertical list of options including 'Sayfam', 'Dersler', 'Canlı Dersler', 'Sınavlar', 'Kütüphane', 'Listeler', 'Çalışmalar', and 'Raporlar'.
- Activity Feed:** Displays a post from 'Remzi Balcı - Öğretmen' with a video thumbnail and text: 'İngilizce - REMZİ BALCI 07.05.2021 11:50 - 12:20 Uygulama: Zoom'. Below the post are options for '0 beğeni' and '0 yorum'.
- Calendar:** A calendar for May 2021 showing dates from 26 to 06. A sidebar on the right lists events for '07 Mayıs Cuma', including 'D isimli canlı dersiniz başlıyor' and 'Başlangıç: 07 Mayıs Cuma 09:50'.

Figure 2. EİN Main Page

Source: EİN, 2021

### 2.4.2. Lessons

This section presents supporting course materials such as video tutorials, answered questions, EİN TV contents, interactive activities, textbooks, and the interactive version of textbooks for all subjects taught in Turkey. Teachers can benefit from all materials by selecting the grade, lesson, and chapter. Contents in this section are categorized under the units of the chosen subject, and these contents can be used in classes, especially in live classes as well as being assigned to students by determining a deadline to complete the assignment. Teachers can also assign their students unit tests to assess the comprehension of the related unit. The materials provided in this section are constantly developed and updated in compliance with the goals of the curriculum, and they are offered to the use of teachers at the beginning of the current academic year. In Figure 3, a sample page of an English language teacher is shown.

The screenshot displays the EİN platform interface. At the top, there is a search bar with the text 'Ne aradığınız?' and a search icon. The user's name 'Remzi Balci' is visible in the top right corner. Below the search bar, there is a navigation menu with options: 'Ders Kitapları', 'Etkileşimli Kitap', 'Destek Anlatımlar', and 'Çözümlü Videolar'. The 'Destek Anlatımlar' section is active, showing two video thumbnails: 'What should I Take?' and 'Conditional Sentences'. The user's profile information is shown on the left, including a profile picture, name 'Remzi Balci', and school 'Abdurrâhman Gülizar Karadeniz Çok Programlı Anadolu Lisesi'. The user has a score of 3867. The bottom of the page shows a folder icon and the text 'Size Ait İçerikler' with a button 'İçerik Ekle' and a link 'İçerik Ekleme Standartları'.

Figure 3. EİN Lessons

Source: EİN, 2021

### 2.4.3. EİN Live Class Application

EİN Live Class Application has recently been developed and added to the EİN platform to continue educational processes during the Covid-19 pandemic. School administrations and teachers can allocate live classes according to the weekly schedules, and they can make use of different applications to schedule a live class such as Zoom, Google Meet, and Skype. However, each class is required to be allocated separately, and this procedure needs to be renewed every week. While allocating the classes, teachers must determine a title for the class, the grade, date and time, the application used to create the live class, the link and entrance password of the class, the name of the lesson, and the classroom name. Figure 4 shows the page of allocating live classes

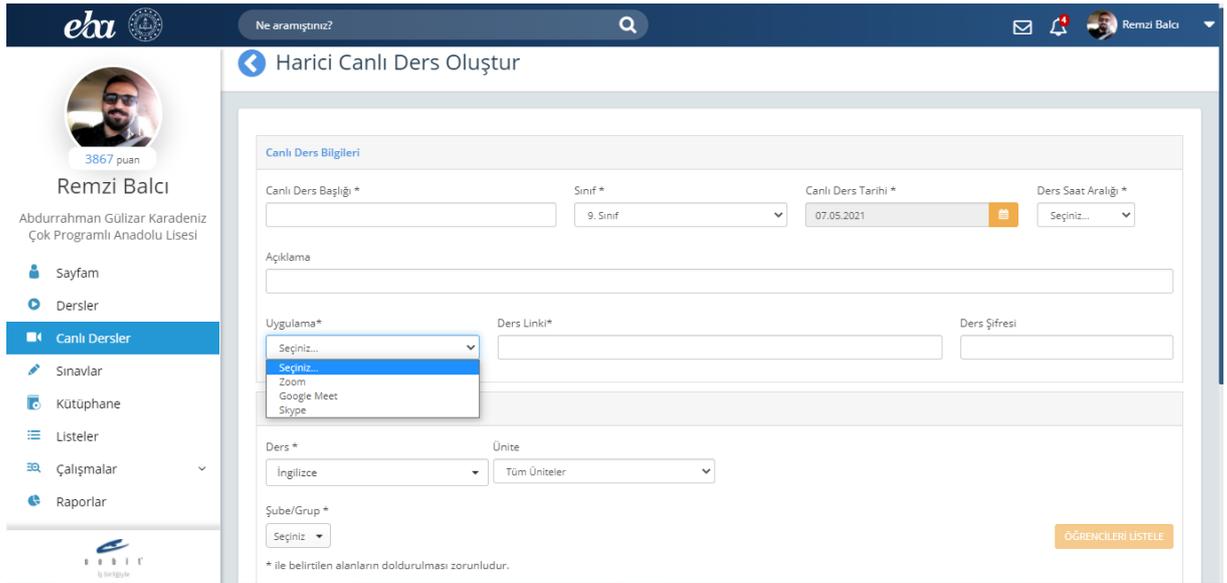
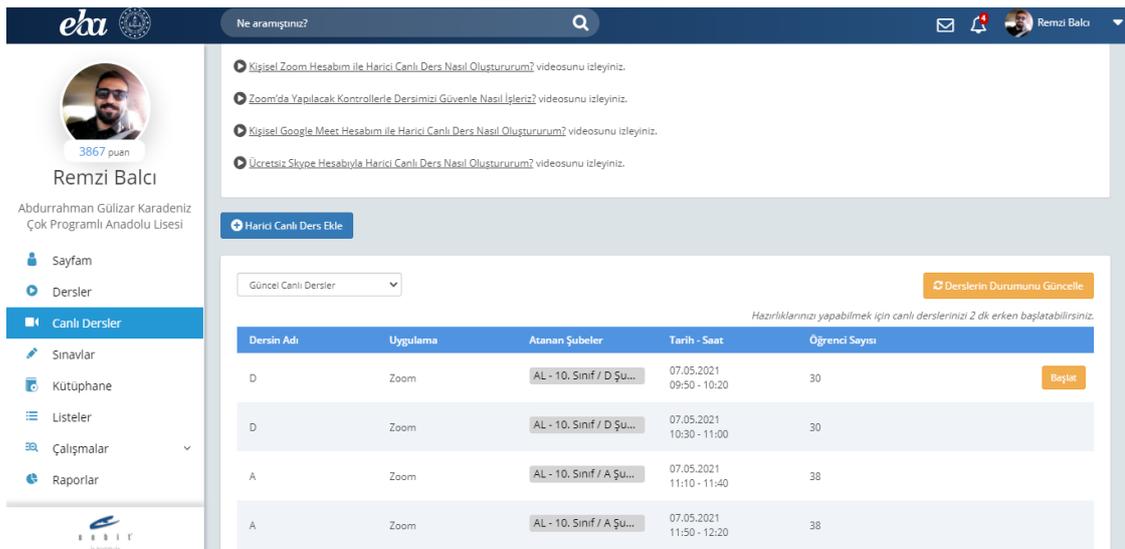


Figure 4. EİN Live Class Application

Source: EİN, 2021

The duration of live classes is 30 minutes long, and there is a 10 minutes long break between classes. The teachers and students are informed about their live classes with a notification, and they can see their upcoming live classes in this section. Furthermore, training videos about how to allocate live classes and teach through live classes via using different applications are offered to all teachers, as seen in Figure 5, given below:



Dersin Adı	Uygulama	Atanan Şubeler	Tarih - Saat	Öğrenci Sayısı
D	Zoom	AL - 10. Sınıf / D Şu...	07.05.2021 09:50 - 10:20	30
D	Zoom	AL - 10. Sınıf / D Şu...	07.05.2021 10:30 - 11:00	30
A	Zoom	AL - 10. Sınıf / A Şu...	07.05.2021 11:10 - 11:40	38
A	Zoom	AL - 10. Sınıf / A Şu...	07.05.2021 11:50 - 12:20	38

Figure 5. EİN Live Class Application

Source: EİN, 2021

When teachers start their classes from EIN Live Class Application, students can participate in live classes through their EIN account. In these live classes, it is not recommended to turn on the participants' cameras, but they can activate their microphones to talk about their ideas, answer questions and participate in the activities. All students of a classroom to which the live class is allocated can get a live class invitation, but they are not obliged to attend classes. Teachers are allowed to make use of the interactive textbooks or other e-contents provided in the platform during their live classes by sharing the screen of their device with the participant students. It is also possible for teachers to determine a co-host for the class in case they lose connection during the live classes. These co-hosts are allowed to share their screen and continue with the lesson by using the provided materials in the platform because students can also have access to some of the e-contents. Both teachers and students attending the live class can see the current participants in the class through the participants section.

Figure 6 shows a sample live class with the participants section from the user account of an English language teacher. In this particular class, a 10th-grade English interactive textbook provided by the MoNE is used.

The screenshot shows a live class session. The main content area displays a lesson titled "RULES AND REGULATIONS" with text explaining their purpose and a table for students to fill in. The table has columns for "Rule and Regulation" and "Purpose". Below the table, there are sections for "4 A MENTORING" and "4 B" with a list of youth problems. A "Participants (6)" sidebar on the right shows a list of participants with their initials and names, including the host "Remzi Balci (Host, me)" and others like "K. G.", "D. Y.", "E. M.", "H. A.", and "S. Ç.". The interface includes a search bar at the top right and a "Stop Share" button at the top center.

Rule and Regulation	Purpose
Slow down, school ahead.	To protect the driver and pupils from an accident.

Figure 6. EIN Live Class Application

Source: EIN, 2021

#### 2.4.4. EIN Test Center

This section offers different types of tests such as developmental screening tests, exercises, sample exams for all branches, personal exams prepared by the user teachers,

worksheets, tests to evaluate the comprehension of course objectives, skill-based tests, and revision tests. In addition to these tests, there are also sample questions for central exams applied to students by the MoNE and the Council of Higher Education. These exams determine the high schools and universities that the students will be accepted according to their exam results. Teachers can assign their students with all of the e-contents in this section by specifying a start and due date, and they can check the results through the reports section in the platform.

#### 2.4.5. EIN Library

In the EIN Library section, contents are categorized under seven subtitles: entertainment and games, health and sports, culture and art, guidance and counseling services, science and technology, Turkish language and foreign languages, nature, and environment. These categories also have different sections in order to access the materials easily. A variety of interactive activities, visuals, applications, magazines, books, documents, external links to relevant materials, and videos are presented in the sections. Users can also access the library materials by typing a keyword into the search bar on the main page and searching for it. After reaching the materials via a keyword, users can select the category and the content type they are looking for. Figure 7 illustrates how to access the materials by using the search bar.

The screenshot displays the EIN Library interface. At the top, there is a search bar with the text "İngilizce" and a search icon. Below the search bar, the user's profile is visible, including a profile picture, the name "Remzi Balcı", and a score of "3874 puan". The main content area shows search results for "İngilizce" with a total of 2856 results. The results are categorized into "Ders İçerikleri (2692)", "Kütüphane İçerikleri (152)", and "Mesleki Gelişim İçerikleri (12)". The "Kütüphane İçerikleri" section is selected, showing a grid of content items. Each item includes a category, a title, and a thumbnail image. The categories listed are "Türk Dili ve Yabancı Diller (142)", "Rehberlik Hizmetleri (8)", "Kültür ve Sanat (1)", and "Eğence ve Oyun (1)". The content types listed are "Video (117)", "Uygulamalar (25)", "Kitap/Dergi (8)", and "Görsel (2)". The search results include items such as "23 Nisan Benim Adım Çocuk (İngilizce)", "İngilizce Kelime Kartı (2-3-4.Sınıf)", "(İngilizce) Zihinsel Yetersizliği Olan Bireyler \*Aileler İçin Rehber...", "(İngilizce) Bedensel Yetersizliği Olan Bireyler \*Aileler İçin Rehber...", "(İngilizce) İhtime Yetersizliği Olan Bireyler \*Aileler İçin Rehber...", "(İngilizce) Görme Yetersizliği Olan Bireyler \*Aileler İçin Rehber...", "(İngilizce) Otizm Spektrum Bozukluğu Olan Bireyler \*Aileler İçin...", and "(İngilizce) Özel Öğrenme Güçlüğü Olan Bireyler \*Aileler İçin Rehber...".

Figure 7. EIN Library

Source: EIN, 2021

#### **2.4.6. EIN Lists**

The EIN Lists section offers a list of supportive e-contents related to the units for every subject. E-contents in this section are categorized according to the grades. In this section, teachers can assign their students with the materials, or they can use them in their classes.

#### **2.4.6. Assignments**

This section offers two sub-categories as digital assignments and verbal and written assignments. Digital assignments are already provided, but teachers need to prepare their own materials if they desire to make use of verbal and written assignments. Teachers can also check the reports of assignments that they send to their students in an elaborative way. For example, they can view the percentage of completion, the status of whether the student has started or not, and the average performance percentage of students individually can be viewed for each assignment.

#### **2.4.7. Reports**

The Reports section provides the most comprehensive analysis of statistical information about the assignments. It consists of three sub-categories: assignment-based reports, reports based on individual study, and general performance reports. The assignment-based reports category presents information about the assignments and the students. The data of starting date, deadline, and titles of the assignments can be viewed in this section. Moreover, the number of students in a classroom and the information about the number of students who have completed the studies along with the general performance rate can be checked. The other categories mainly provide similar reports with different statistical data.

#### **2.4.8. Career Development**

The Career Development section appeals to the teachers affiliated with the MoNE and aims to help them contribute to their career and personal development process with a variety of activities and materials. The section has five sub-categories: groups and contents, my courses/classes, my schedules, live training sessions, and the library. Teachers can be members of public groups that can be found in this section and

interact with each other to discuss current developments in education or educational technology, teaching methods, classroom management techniques, and other education-related topics. Teachers can also get online in-service training from this section. Furthermore, a library with books in pdf format on career development, the development of education, and assessment and evaluation in education are also offered to the use of teachers. This section also presents books from Turkish literature and world classics. In Figure 8, the career development section is shown.

The screenshot displays the EBA Mesleki Gelişim (Career Development) section. On the left, there is a user profile for Remzi Balci with a score of 3874. The main content area is titled 'EBA Mesleki Gelişim' and shows 'Sizin İçin Önerilen Kurslar' (Courses Recommended for You). There are four course cards visible:

- Geri Bildirim - Öğretmenler İçin El Kitabı**: Bitiş Tarihi: 30 Haziran 2021, 4,7/5
- EBA Akademik Destek İle Uzaktan Eğitim**: Bitiş Tarihi: 30 Haziran 2021, 4,9/5
- EBA İle Uzaktan Eğitim Kursu (5 - 10. Sınıf Öğretmenleri İçin)**: Bitiş Tarihi: 30 Haziran 2021, 4,8/5
- Bilişimle Üretim Eğitimi - Sınıf Öğretmenleri İçin**: Bitiş Tarihi: 01 Nisan 2022, 4,7/5

Figure 8. EIN Career Development

Source: EIN, 2021

#### 2.4.9. EIN Academic Support

EIN Academic Support is a new module in the platform, and it is still being developed by the MoNE. It is an interactive platform based on artificial intelligence technology. This section provides its services for only 11<sup>th</sup> and 12<sup>th</sup> graders, and its primary purpose is to prepare these students for the university entrance exam applied by the Council of Higher Education. This module offers materials related to a variety of lessons, but foreign languages have not been included yet. The basic functioning principle of this module is to evaluate the students' school performances with a comprehensive test after the students specify their goals in terms of what they desire to study at university. According to the result of the test, a personal study program is

prepared for each student. Teachers can also check the improvement scales of their students and they can assign supportive homework through this module. In Figure 9, a general theme of this module is presented.

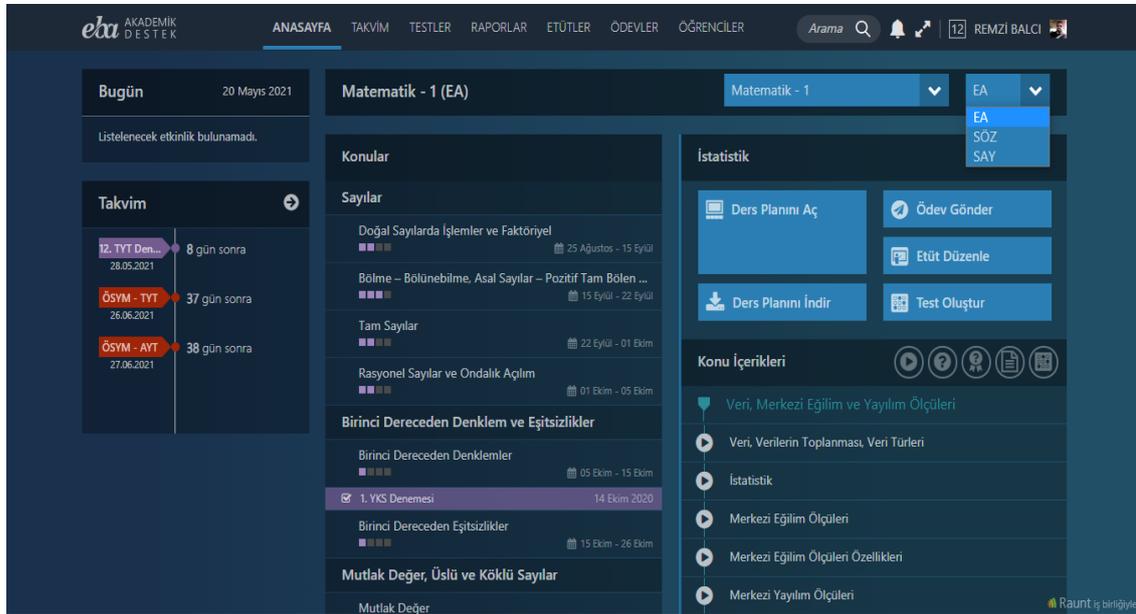


Figure 9. EIN Academic Support

Source: EIN, 2021

The other sections in this platform include Groups, Portfolios, Personal Files, Calendar, e-Content Production, The System Questions, and Exams. These are supportive modules of the previous sections.

#### 2.4.10. EIN Language Learning Portal

EIN Language Learning Portal offers four different categories; these are Turkish, English, Arabic, and other languages including French and German. The portal provides a variety of applications, supporting materials, videos, worksheets, visual and auidial materials, dictionaries, textbooks, and tutorial videos used during the pandemic for learning these languages. This portal offers open access to everyone who desires to learn or teach a foreign language. In the English section, educational publications provided by both the MoNE and private publishers, videos, and visual and audio materials are presented. All of the materials offered in this section consist of e-contents, and teachers can easily use them in their live classes because the interactive versions of the textbooks and worksheets are also provided.

Figure 10 demonstrates the main page of the English section in the Language Learning Portal. Language learning applications provided by the MoNE and private publishers and other supportive materials can be seen in the figure.

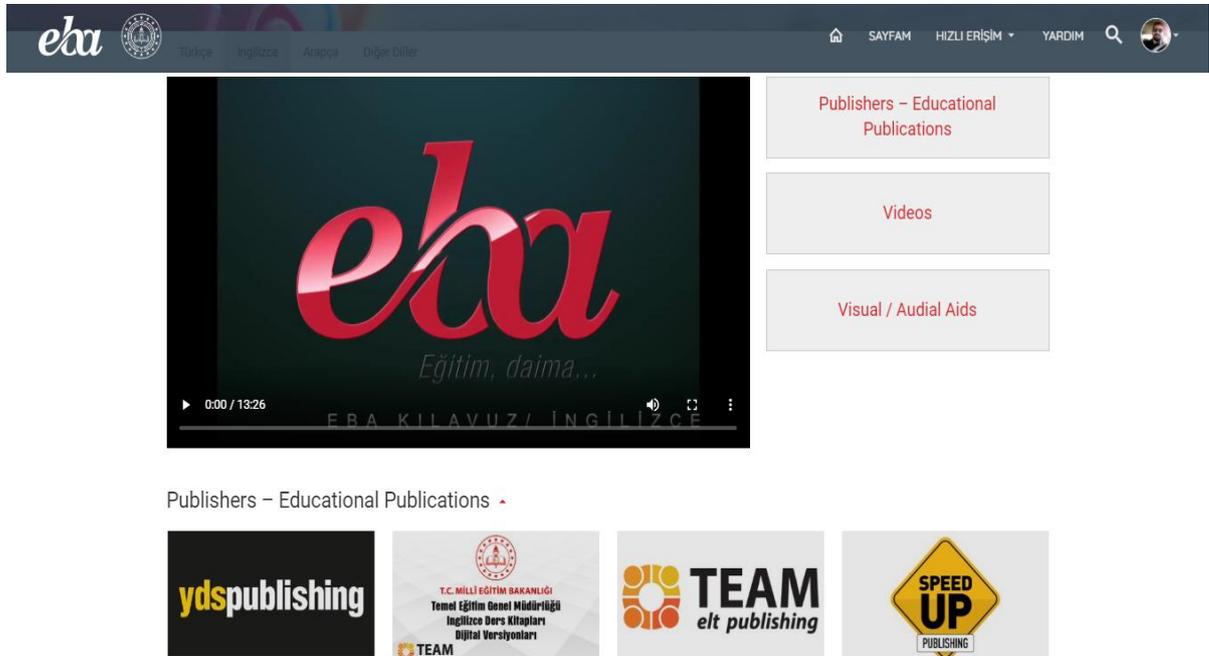


Figure 10. EİN Language Learning Portal

Source: EİN, 2021

#### 2.4.11. EİN Mobile Applications

EİN educational platform is supported by a set of mobile applications to enable users to access the platform easily. These applications are designed and presented to the use of students, teachers, and parents by the Directorate General for Innovation and Educational Technologies (YEGİTEK). EİN Application, EİN Academic Support Application, EİN VClass (Virtual Class) Application, and EİN Guess What Application can be downloaded through IOS and Android application markets. There are various objectives of these applications. Firstly, EİN Application provides the exact format of the EİN platform, and users can access reliable e-contents, interactive, visual, and audial materials, documents, books, and magazines. This application also enables students and teachers to access their live classes. Secondly, EİN VClass Application aims to continue the educational process in distance in order to keep up with the latest developments in educational technology. Teachers can teach their classes by using live classes through EİN Virtual Class Application just as they teach in traditional classes at school. Thirdly,

EIN Academic Support Application has been designed to enable 11<sup>th</sup> and 12<sup>th</sup>-grade students to study regardless of time and location, and it provides personalized study programs and several question-solving videos for students. Finally, EIN Guess What Application consists of concepts and words that primary school students may frequently encounter in their daily lives. The main purpose of the application is to help primary school students to comprehend the Turkish language, which is their native language. Figure 11 shows these applications through the IOS application market.

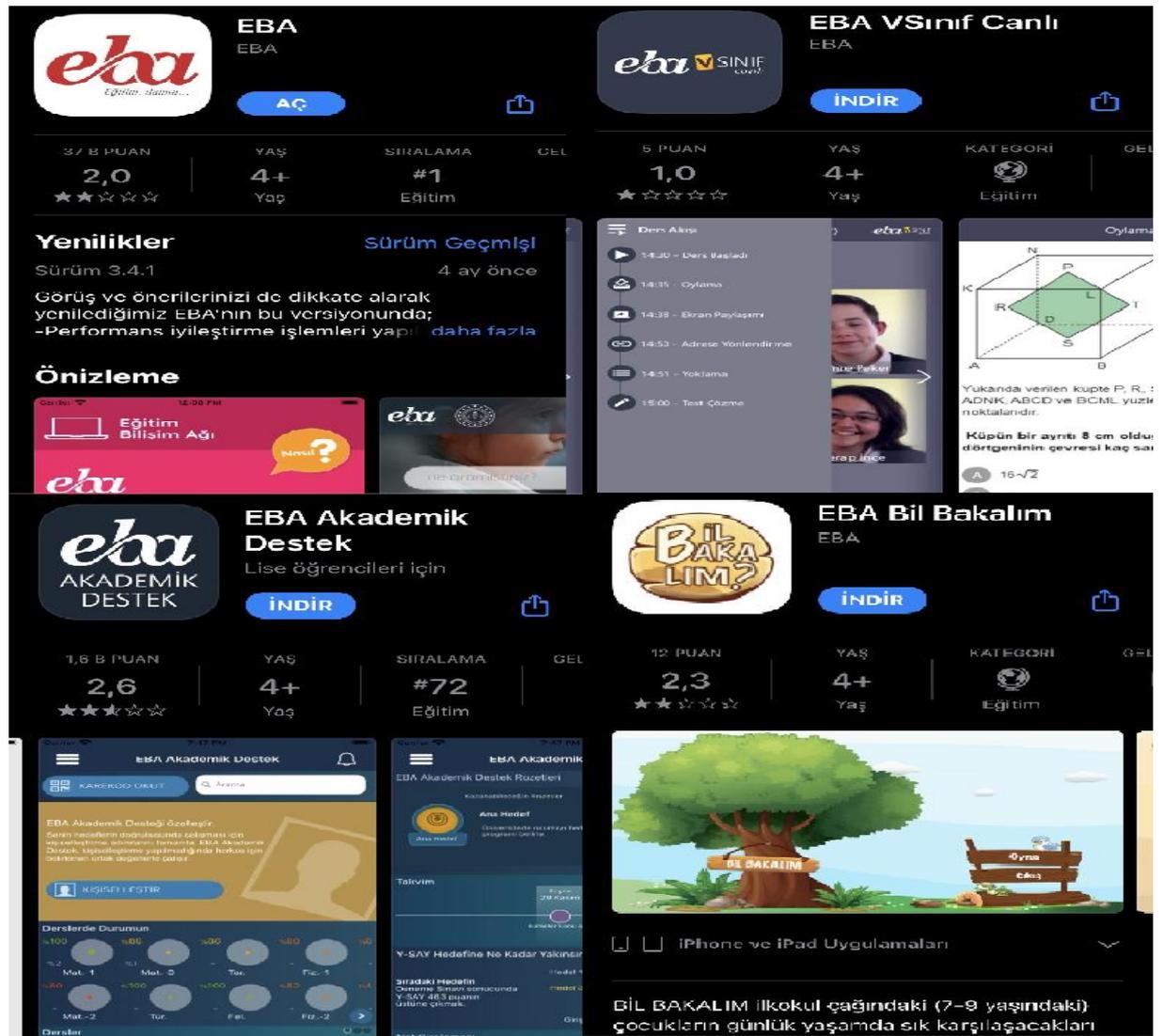


Figure 11. EIN Mobile Applications

Source: EIN, 2021

These applications and educational platforms are significant in foreign language education since the recent developments in educational technology offer plenty of new

methods and techniques. Moreover, the Covid-19 pandemic has affected the education of almost all countries in the world, and governments have attempted to find new ways to continue their education. Live and virtual classes have been the most applied instruments as learning and teaching environments during this process. However, they are new for all education stakeholders and need to be elaborately researched because they are used to replace traditional face-to-face education. Therefore, the benefits and potential challenges of live classes in online language education are the starting points of this study, and they are researched from the perspectives of both EFL students and teachers.

## **2.5. Research on the Benefits and Challenges of Live Classes**

As educational technology has developed and has been integrated into teaching and learning environments, online education has been an important part of our lives, especially during the Covid-19 pandemic. Many countries have suspended their face-to-face education and decided to continue with online education through live and virtual classes. However, this sudden switch from traditional educational programs to online environments has its own outcomes. While online education offers several benefits, it also has particular challenges and limitations confronted by both students and teachers. Therefore, online learning and teaching environments along with their benefits and challenges have been studied by various researchers in a variety of ways. In this section, significant studies are investigated in relation to live classes.

Kelly and Schonger (2002) carried out a study with 64 university students about the effects of learning preferences along with demographic differences including age, gender, cumulative general point average, teaching certification area, and ethnicity in terms of the benefits and challenges that participants encounter during the online education. They determined two different groups, one of which was the control group and the other one was the experimental group. The participants were distributed equally in terms of their demographic features in these groups in order to collect reliable data. The control group continued to attend traditional classes, but the experimental group participated in online classes. The researchers used two online data collection tools to specify students' learning preferences and their perceptions of online learning. According to their conclusion, students perceived online education as less effective.

Although learning preferences played an essential role in students' perceptions, no significant differences were identified in terms of demographic features.

Another study by Cavanaugh (2005) investigated the comparison of time required in online and traditional education and also the benefits of online education from the teachers' perspectives. The study was conducted with a control and an experimental group in a university context that offered online classes for students. In the control group, teachers taught their classes in traditional classrooms, and in the experimental group, the same teachers taught the same course in online classes using the same textbooks, activities, and assignments to make a reliable comparison. The results of the study revealed that the amount of time that teachers spent in online education were twice as much as the time they spend on traditional education. However, the author mentions that online education offers teachers flexibility in their schedules, which can be accepted as an important benefit of online education.

In addition to previous studies, Nikdel Teymori and Fardin (2020) conducted a review of the studies about the experiences of teachers during the Covid-19 outbreak and listed five essential principles as follows:

- Insufficiency of the availability of computer servers because of the overload caused by being used by a large number of educational stakeholders worldwide,
- The need to regulate course contents to assist students to stay focused during classes,
- The significance of being careful about the tone of voice and speech intelligibility by teachers,
- The importance of using social media networks to provide feedback to students,
- Making use of online education and offline self-learning collaboratively to increase the quality of the class and avoid time-consuming processes.

According to the conclusions of the study, online education may negatively affect teachers' attitudes toward teaching online over time, and this may cause dissatisfaction in students. Online educational environments may gain popularity among the countries across the world and be implemented into their educational systems; hence

it is of great importance to consider educational technology developments in the field and enhance the accessibility of these environments to students and teachers.

A further study carried out by Mondol and Mohiuddin (2020) aimed to investigate the outcomes of education shift from the traditional classroom to online education during the pandemic in a university context in Iran. A mixed-method research design including both quantitative and qualitative data was used. For the quantitative part of the study, a questionnaire was used, and focus group discussion was carried out in the qualitative part of the study. Thirty teachers and 50 students with a variety of socio-cultural and economic backgrounds participated in the study, and it was the first online education experience for most of the participants. According to the findings, teachers complain about two significant problems: internet connection problems along with power cuts causing an interruption during online classes and teachers' lack of expertise in terms of teaching online. The teachers also declared that these problems would cause a lack of motivation and less attendance to classes. Moreover, the participant teachers mentioned that some of their students did not have smart devices which were necessary to participate in their classes. The final point that teachers mentioned was that they had difficulty in following a rigid schedule and demanded it to be more flexible. On the other hand, most of the participant students stated that the physical appearance of their teachers was necessary because they could follow the class better with the help of their teachers' use of body language. Furthermore, most of the students complained about socializing problems they faced during this process; they stated that they could not socialize enough because of online education. Another problem mentioned in the study by students was that they could not follow the classes properly, and they thought the duration of classes, which was 90 minutes long, was too long, and they had difficulty in staying focused. The authors concluded that online education is a reality and it is an alternative to the pandemic crisis, so it is vital to focus on the challenges stated by students and teachers to solve the problems and enhance the quality of online education.

Another study was carried out by Mukhtar, Javed, Arooj and Sethi (2020) to investigate the students' and teachers' perceptions of the benefits and challenges of online education during the pandemic. The qualitative research design was implemented using focus group interviews, forming four focus groups including six people in each. Twenty-four people (12 teachers and 12 students) participated in the study from the field of medicine in a university context. According to the findings, teachers and

students perceived online education as flexible and effective because they could teach and attend their classes regardless of time and location. However, participant teachers and students stated that online education was inefficient in teaching and learning practical activities. Also, participant teachers mentioned that they had difficulty in getting feedback from their students. Another challenge encountered by the participants was the internet connectivity problem and its adverse effects on the quality of education. The authors recommended having shorter classes because the students stated that they had a shorter attention span in online classes than traditional classes, and the importance of setting ground rules for online classes in order to avoid any undesired and unexpected situations are underlined (Mukhtar et al., 2020).

In a further study, Bączek, Zagańczyk-Bączek, Szpringer, Jaroszyński and Woźakowska-Kapłon (2021) explored students' perceptions on online education during the Covid-19 outbreak. They implemented an online survey to collect data from medical students in the university context after eight weeks of online education. Eight hundred four medical students participated in the study, and they provided valuable data on the benefits and challenges of online education. The benefits of online education perceived by students are as follows:

- Staying at home and not traveling to school for studies,
- Accessing the online course materials regardless of time and location,
- Learning at their own paces thanks to personalized and flexible schedules,
- Feeling comfortable in a home environment during classes.

On the other hand, students mentioned some challenges such as lack of interaction during classes as they thought they were more active in traditional classes compared to online classes. They also stated that online education was less effective in improving the socialization process. Furthermore, technical problems were faced by students before and during online classes. Therefore, the authors recommend technical assistance to both teachers and students in this process. Another recommendation made by the authors is that teachers and students should collaborate with each other, and the online education process should not include only delivering the content but improving the students' skills and receiving useful feedback (Bączek, et al., 2021).

In addition to the above-mentioned challenges, Mohan, Sen, Shah, Jain and Jain (2021) investigated the frequency and prevalence of health issues among children who attend online classes during the Covid-19 outbreak. The specific health disorder researched in this study is the digital eye strain. An online survey was used to collect data from the children and their parents to determine the time spent with electronic devices before and during the pandemic. After gathering data through the survey, the authors measured the frequency of digital eye strain problems faced by children with the help of the Computer Vision Syndrome Questionnaire developed by the authors. It was determined that the duration of using electronic devices increased during the pandemic in addition to the eye health problems. 50% of the participant students were found to suffer from at least one eye issue, and itching in the eye and headache are specified as the most common problems encountered by children attending online classes. Therefore, the authors recommend parents to be more careful about the duration their children spend with electronic devices in order to minimize the possible eye strain problems during pandemic (Mohan et al., 2021).

Along with the benefits and challenges of online learning, its effectiveness is also a significant aspect to investigate. In this sense, Yu (2021) carried out a study on the effectiveness of online learning and the effects of gender, education level, and personality of students on online education during the coronavirus outbreak. The mixed method of research design was implemented in the study to collect both quantitative and qualitative data from the participants. One thousand one hundred fifty-two university students studying foreign languages in China participated in the study. The author used an interview to gather qualitative data. According to the results of the study, postgraduate students were in favor of online education while undergraduate students preferred face-to-face education. The author claims the reason for this situation might be the fact that postgraduates tend to be more self-regulated. Apart from this finding, no significant difference was identified among different variables and the educational outcomes (Yu, 2021).

In addition to these studies from different parts of the world, the benefits and challenges of online education have been studied in the Turkish context. Firstly, Kalelioğlu (2016) carried out a study on teachers' and students' experiences in live and virtual classes. It was a case study with a qualitative research design in the university context in Turkey. The participants of the study were five teachers and seven students who experienced virtual class settings. The online education process was carried out

with synchronous and asynchronous activities. The participant teachers were interviewed with a semi-structured interview through an online questionnaire including open-ended items to explore their experiences about online education. The results showed that both teachers and students encountered internet connection problems and challenges caused by the application used in the online education process. Teachers stated that they suffered from the noise pollution caused by environmental factors while students mentioned they had difficulty concentrating on the class during live classes. Moreover, some of the participant students declared that they had hardware and communication problems. Apart from the challenges of online education, the study also revealed that the first preference of students was face-to-face education, but they mentioned that this opinion could change depending on the circumstances while teachers preferred both online and face-to-face education. Based on the challenges and preferences of the participants, the author of the study made some recommendations such as using effective methods and techniques to motivate the students, sharing a variety of e-contents, and doing interactive activities during live classes to increase the quality of the online education (Kalelioğlu, 2016).

During the Covid-19 pandemic, the significance of online education has increased. In this sense, Duman (2020) conducted a study to evaluate the online education process during the outbreak from the perspectives of students in a university context. The study was carried out as a case study with a qualitative research design. The participants of the study were 28 education faculty students who were interviewed through online channels. The study revealed that students experienced several challenges as follows:

- The ineffectiveness of the teaching method used in online education,
- Lack of interaction between teachers and students,
- Insufficiency of the duration of classes,
- Distraction and demotivation problems,
- Absence of practical studies in online education,
- Insufficient feedback from teachers,
- Few opportunities to collaborate with other students,
- Connectivity problems are caused by poor internet signal and power cuts.

According to the results of the study, the participant students mentioned that there were benefits of the online education process. The most common benefit of online education as perceived by students is assignment-based assessment without any additional exams. There were other advantages of online education perceived by the participant students such as being able to attend classes regardless of time and location, the opportunity to watch the recording, easy access thanks to smartphones, and voluntary attendance to classes. Taking these challenges and benefits of online education into consideration, the participant students made some recommendations to increase the quality of online education. These recommendations are as follows:

- A hybrid system of education including both online and face-to-face education should be implemented,
- The teachers' expertise in teaching through online channels should be increased,
- Online education applications should be enhanced in terms of quality,
- E-contents should be prepared for online classes.

Following the perceptions of the participant students, the author highlighted the importance of the developments in online education, the interaction, and communication between teachers and students in this process. This study sheds light on the challenges and benefits of online education from the perspectives of students. Moreover, it presents the recommendations of students in enhancing the quality of online education.

Another study from the perspectives of students was carried out by Pınar and Dönel Akgül (2020) who researched the perceptions of secondary school students about live classes in online science lessons. It was a case study with the qualitative research design in a secondary school context in Turkey. The authors used a multi-stage sampling method including different methods for each step of the study, and 1000 students participated in the study from different parts of Turkey. An online open-ended questionnaire was used to collect data. The study revealed that participants mentioned both benefits and challenges of online education. One of the most common benefits of online education was stated as the continuation of the education process and not falling behind in their studies. Other beneficial aspects mentioned include a comfortable home environment, better preparation for exams, higher motivation, the opportunity to get

instant feedback from teachers, and enjoyable live classes. In spite of these benefits of online education, students stated a list of challenges they face before or during live classes. The most significant challenge stated by students is that they cannot experiment with live classes that they can in face-to-face education. Moreover, students mentioned that they could not comprehend the topics taught in live classes. Another challenge is that students encounter technical problems concerning the internet or electronic devices based problems. Students also expressed live class application-based problems such as constant failure of live class application, not being able to attend classes because of overloading to the application by users, and the insufficiency of the duration of live classes (Pınar & Dönel Akgül, 2020).

In addition to studies investigating the perceptions of students on the online education process, teachers' perspectives are also of great importance because they are one of the fundamental figures of education. In that sense, Bayburtlu (2020) researched the teachers' perceptions on live classes using a case study with a qualitative research design in the Turkish context. Thirty Turkish language teachers, who work for the MoNE, participated in the study, and they were interviewed with a semi-structured interview developed by the researcher. According to the results, teachers mentioned a set of flaws they face while teaching through the EIN live class application. The main problems encountered by teachers during live classes are listed below:

- Infrastructure based problems in terms of the application used to teach through live classes,
- Students' lack of the availability of technological devices and a proper internet connection that is necessary to attend live classes,
- Absence of e-contents and interactive versions of Turkish language textbooks in EIN platform,
- Professional illiteracy on preparing and designing e-contents,
- Connectivity problems to EIN live class application and the time limitation for the duration of live classes,
- Low participation of students.

After determining the challenges encountered by teachers during the online education process, teachers made specific recommendations to eliminate the problems

and enhance the quality of live classes. First of all, teachers stated that the educational technology infrastructure should be developed, and the EIN live class application is required to be updated constantly in order to serve a large number of students and teachers to have live classes at the same time. Secondly, students should be provided with the necessary equipment including smart devices and a proper internet connection. Thirdly, e-contents and interactive versions of Turkish language textbooks should be prepared and uploaded to the EIN platform, and teachers need to be provided in-service training on e-content preparation. Finally, teachers alleged that online education could never be a substitute for face-to-face education. However, it is crucial to be ready for this kind of educational crisis in the future (Bayburtlu, 2020).

Another study titled “Examining the Distance Education Experiences of Secondary School Teachers in the Covid-19 Outbreak Process” was conducted to reveal the perceptions of teachers on online education by Canpolat and Yıldırım (2021). The phenomenological research design was applied in the study, and 8 secondary school teachers from different disciplines participated. The researchers developed and designed a semi-structured interview to gather data from the participant teachers. The results of the study were demonstrated under the benefits and challenges of EIN live classes in the online education process. Perceived benefits of EIN live classes by secondary school teachers are as follows:

- The application allows students and teachers to continue their educational activities,
- Technological competencies of both teachers and students have improved thanks to living class applications,
- Live class application is a substitute for face-to-face education,
- Easy use of live class application tools,
- Live classes increase the interaction between students and teachers,
- The EIN platform provides e-contents that appeal to students with different learning styles.

According to the perceptions of the participant teachers, there appears to be a variety of challenges caused by different aspects of the application of online education such as teacher, student, infrastructure, live class application, and administration-based

problems. The most common flaws encountered by teachers in live classes are as follows (Canpolat & Yıldırım, 2021).

- Inexperience and illegibility of teachers in terms of teaching through live classes,
- Low student participation,
- Internet connection problems,
- Lack of having technological devices to have live classes,
- Participation in live classes is based on a voluntary basis; therefore, it is perceived as unnecessary to attend classes by students.

In conclusion, previous studies revealed that online education offers several benefits; however, it is obvious that there are a number of challenges encountered by both teachers and students, especially in live classes (Bączek et al., 2021; Canpolat & Yıldırım, 2021; Duman, 2020; Mukhtar et al., 2020). With the declaration of the Covid-19 pandemic, many countries had to suspend their face-to-face education activities and started to implement online education applications. The significance of these online education applications increased all around the world; however, education stakeholders have been reporting challenges that they encounter in the online education process because of the sudden shift from face-to-face education to online education, virtual and live classes (Mondol & Mohiuddin, 2020). On the other hand, live class applications are alleged to be more common in the future by education stakeholders because they also offer many opportunities such as flexibility, a comfortable environment, and availability regardless of time and location (Bączek et al., 2021; Cavanaugh, 2005).

## CHAPTER III

### METHODOLOGY

#### 3.1. Introduction

This chapter presents the methodology, the design of the research, participants, data collection tools, and the methods used in the analysis of the data. Detailed information about the allocations of research questions according to sampling techniques and the participants is also included through a descriptive table.

#### 3.2. Research Design

This study aims to investigate the EFL students' and teachers' perceptions of the benefits and possible challenges of online language learning/teaching through the Educational Informatics Network (EIN) Live Class Application (LCA). The explanatory sequential design of the mixed-method research design strategies is used in this research. This research design is applied by gathering and analyzing the quantitative data first and then focusing on qualitative data to discuss and elaborate the findings (Creswell & Plano Clark, 2007). To achieve this objective, the research consists of two different but parallel questionnaires in order to collect quantitative data, one of which is for EFL students and the other one is for EFL teachers. After collecting and analyzing the quantitative data via questionnaires, two structured interviews, one for each participant group, are distributed online and in written form to the voluntary participants to gather qualitative data and have a better understanding of the information collected through the questionnaires. The whole research process is illustrated in Table 1.

Table 1.

*Summary of Research Questions, Sampling Technique, Participants, Data Collection Tools, and Timing*

<b>Research Questions</b>	<b>Sampling Technique</b>	<b>Participants</b>	<b>Data Collection Tools</b>	<b>Time</b>
What are the EFL students' perspectives on online language learning through EIN Live Class Application in terms of its benefits and potential challenges?	Convenience Sampling	325 EFL Students	EIN Questionnaire	January - March 2021, 20 minutes
Do gender, grade, and type of school affect EFL students' perceptions of EIN LCA in terms of its benefits and challenges?	Voluntary Sampling	20 EFL Students	Written Interview	April 2021, 20 minutes
What are the EFL teachers' perspectives on online language teaching through EIN Live Class Application in terms of its benefits and potential challenges?	Convenience Sampling	81 EFL Teachers	EIN Questionnaire	January - March 2021, 15 minutes
Do gender, age, educational status, teaching experience, and type of school affect EFL teachers' perceptions of EIN LCA in terms of its benefits and potential challenges?	Voluntary Sampling	27 EFL Teachers	Written Interview	April 2021, 20 minutes
Do gender, age, educational status, teaching experience, and type of school affect EFL teachers' perceptions of EIN LCA in terms of its benefits and potential challenges?	Convenience Sampling	81 EFL Teachers	EIN Questionnaire	January - March 2021, 15 minutes

Table 1, presented above, illustrates a summary of the research questions, the procedure of data collection instruments, the sampling techniques and the allocation of research questions, data collection tools employed in the current study. As indicated in Table 1, EIN questionnaires were carried out with 81 EFL teachers and 325 EFL students to address four research questions in the period from January to March 2021. As demonstrated in Table 1, the present research seeks answers to four questions, using a mixed-method research design with qualitative and quantitative data collection tools. The first research question aims to find out Turkish EFL students' opinions about online language learning through EIN Live Class Application in terms of its benefits and

potential challenges. To address this research question, a questionnaire and interview are held with students. The second research question aims to investigate the effects of gender, grade, and school type on students' perceptions towards the benefits and potential challenges of EIN live classes. In investigating this question, the same research tools were employed. As in the first research question, data was collected through interviews to collect answers for this research question. The third research question aims to identify the EFL teachers' perspectives on online language teaching through EIN Live Class Application in terms of its benefits and challenges. Overall, both quantitative and qualitative data were collected through the two sets of the questionnaire (Appendix 1 and 2), and interviews (Appendix 4 and 6) held with the two cohorts of participants to investigate the EFL students' and teachers' perspectives of EIN Live Class application in terms of its benefits and potential challenges.

### **3.3. Participants**

The population of the study consists of EFL students and teachers affiliated to the MoNE in the Hatay province during the academic year 2020-2021. Accordingly, the study collected data from all primary, secondary, and high school students starting from the 2nd grade to the 12th grade. Teachers are employed with different statuses in the state schools of Turkey such as permanent, contract, and paid, and all of them are involved as the population in this study. Therefore, 325 EFL students and 81 EFL teachers took part in the study through a convenience sampling method which is a non-probability sampling technique for the quantitative part of this research. The purpose of the selection of this method is that it is simple and efficient to obtain data from a large group of participants in a specific time period. All of the participants were contacted mostly online, but in some cases, face-to-face communication channels were also used; thus, both online and printed data collection tools were implemented. The Google Forms digital platform was used to collect data online from EFL students and teachers after the necessary permission was received from the directorate of national education and district governorship in Kumlu county of Hatay province (Appendix 8).

After the quantitative data of the research was gathered, the qualitative data collection procedure was carried out through two structured interviews in written form. 20 EFL students and 27 EFL teachers declared that they were volunteers to participate in the interview through the questionnaire. Therefore voluntary sampling of non-

probability sampling designs was included in this part of the research. This sampling method is used to collect data from the volunteered and qualified participants in the target population (Murairwa, 2015). The data gathering process was completed when all participant EFL students and teachers, who declared their preference as volunteers to take part in the interview in the last part of the questionnaire, responded to all of the interview questions.

### **3.4. Data Collection Tools**

Two data collection tools were used in this study including two different, but parallel questionnaires, one of them which is for EFL students and the other one is for EFL teachers. Two parallel sets of questionnaires were designed; one for the teachers, “Evaluation of EIN Live Class Application by EFL Teachers” and the other for the student, “Evaluation of EIN Live Class Application by EFL Students.” The questionnaire for students aims to explore student-related benefits and challenges, and the purpose of the teacher questionnaire is to find out the benefits and challenges encountered by teachers. The items in the questionnaires investigate the same feature according to the perspectives of the participant groups. Furthermore, two structured interviews in written form were conducted with these participant groups. The purpose of these data collection tools was to reveal responses to the research questions of the study. The questionnaires consist of two sections, the first section endeavors to collect demographic information, and the second section investigates the participants’ perceptions of EIN LCA in terms of its benefits and challenges. In the students’ questionnaire, the research analyzes the variables of gender, type of school, grade, availability of internet connection at home, a smart device or a computer at home, a personal smart device or computer, and a separate room to study at home. There are also certain variables analyzed in the teachers’ questionnaire such as gender, age, educational status, teaching experience, type of school, and having received any training about how to use EIN LCA. This section is followed by the items related to the students’ and teachers’ perceptions of the benefits and possible challenges of EIN LCA. Detailed information related to these research instruments is presented in the following section.

### **3.4.1. Questionnaire for EFL Teachers**

The “Evaluation of Educational Informatics Network (EIN) Live Class Application (LCA) by English as a Foreign Language (EFL) Teachers” questionnaire was initially developed by Alabay (2015) and adapted and translated by Kurnaz (2020). Afterward, it was adapted, redesigned, modified, and also some new items were added to be used in this study as one of the data collection tools by the researcher (Appendix 1). This questionnaire consists of two sections. In the first section, the questionnaire has six closed-ended questions gathering the demographics data of the participants’ gender, age, educational status, teaching experience, type of school, and having any training about how to use EIN LCA. In the second section, there are 22 items about the EFL teachers’ perceptions of the benefits and challenges of EIN LCA. The questionnaire items are responded based on the 5-point Likert scale with the options of (1) Strongly Disagree; (2) Disagree; (3) Neither Agree nor Disagree; (4) Agree; and (5) Strongly Agree according to the participant EFL teachers’ level of agreement.

### **3.4.2. Questionnaire for EFL Students**

The “Evaluation of Educational Informatics Network (EIN) Live Class Application (LCA) by English as a Foreign Language (EFL) Students” questionnaire was composed of 4 different studies (Alabay, 2015; Bernard et al., 2004; Kurnaz, 2020; McVay, 2001). It was adapted, redesigned, modified, and also some new items were added to be used in this study as one of the data collection tools by the researcher (Appendix 2). This student questionnaire comprises two sections. In the first part, there are seven close-ended questions to collect the demographic data of the participant students’ gender, type of school, grade, availability of internet connection, a smart device or computer, a personal smart device or computer, and a separate room to study at home. Four of these items aim at determining the social status of the participants. In the second part of the questionnaire, there are 22 items about the EFL students’ perceptions of the benefits and challenges of EIN LCA in terms of learning online language learning. The questionnaire items are responded based on the 5-point Likert scale with the options of (1) Strongly Disagree; (2) Disagree; (3) Neither Agree nor Disagree; (4) Agree; and (5) Strongly Agree according to the participant EFL students’ level of agreement.

The questionnaires were adapted based on different studies stated above. The new questionnaires prepared for this study were presented to be evaluated, consulted, and examined by five experts working in the field of language, education, and teaching. The researcher asked the experts to provide their opinions on whether each item in the questionnaires is comprehensive, understandable, and appropriate to collect data adequate to the context of the study. After the evaluation and examination of the experts, some items were modified, changed, or rewritten while some others were completely removed according to the suggestions made by the experts.

Following the determination of the questionnaires' ultimate versions, a pilot study was carried out with the participation of 59 EFL students for the student questionnaire and 11 EFL teachers for the teacher questionnaire. The study group was excluded in order to ensure that the questionnaires' items address the research questions properly, they are understandable for the participant groups, and they comprehend the topic being researched in the study. Based on the results of the pilot studies and feedback from the participants, little modifications and necessary adjustments were made through negotiations with the supervisor of the researcher. Furthermore, in the pilot study, the participants were interviewed individually about their opinions and suggestions for each item and the general structure of the questionnaires to avoid repetitive statements, incoherence, and lack of scope in the questionnaires. In line with the received feedback from both participants and experts in the field, items and the general structure of the questionnaires were updated to enhance their clarity and simplicity and to avoid misinterpretation and ambiguity. The final versions of the questionnaires were prepared both on the Google Forms digital platform and in printed format for the participants who were unable to reach the online form and shared with target participant groups online and in written form. By considering the students' English language competence, the questionnaire was conducted in Turkish (Appendix 3). Since the items were translated into students' native language by the researcher, they were back-translated into English by an expert from the field of language to assure the translation was accurate. Finally, the answers of the participants who filled in the printed version of the questionnaires were included in the online form by the researcher.

### **3.4.3. Structured Interview for EFL Teachers**

The structured interview enables the researchers to collect qualitative data by asking the same questions to each participant; therefore, the questions to be asked are prepared in advance (Mathers, Fox, & Hunn, 1998). The interview questions were initially prepared in English. Five experts were consulted to have their opinions of the interview questions. The supervisor of the thesis and three English teachers using EFL live classes were requested to assess the interview questions to ensure that each statement in the interview is appropriate and comprehensible for the interviewees. The feedback obtained helped the researcher modify the working of some of the questions for purposes of clarification, which helped decide on the final version of the interview questions.

The interviews were piloted with a group of EFL teachers who were not the participants of the study. The English version of the interview questions was later translated into Turkish, the native language of the participants of this study. Three language teachers, proficient in English and Turkish, were consulted to check the statements so as to verify that the translation of the items is accurate. The interviews were held three weeks after the implementation of the questionnaire. See Appendix 4 for the English version and Appendix 5 for the Turkish version of the interview protocol.

Twenty-seven teachers participating in the questionnaire expressed their agreement to be interviewed. Interviews were conducted in both English and Turkish in written form, and teachers were asked to respond to the interview questions in a language that they would feel more confident and comfortable in. The responses given in English were kept as they were, but the ones given in Turkish were translated into English by the researcher to proceed with the content analysis of the data. After the translation was completed, the back-translation technique was implemented with the assistance of an expert from the field of language to make sure the translation was accurate.

The interview was prepared as open-ended questions. Each participant was sent an online written interview protocol explaining the purpose of the interview along with the open-ended interview questions. It was estimated that the completion of each interview would take approximately 15-20 minutes.

The interview consists of two parts. In the first part, there are six questions based on certain variables, 5 of them are regarding the demographic information of EFL teachers, and the last question is to determine whether the participant EFL teachers have received any training about how to use EIN LCA. The second part of the interview aims to collect detailed information with ten items including 23 questions for more details and clarification on participants' perceptions about the benefits and potential challenges of EIN LCA in terms of online language teaching. The researcher prepared the interview items according to the questionnaire analysis results. The items in the questionnaire which received the highest, average, and lowest mean ratings were detected, and the interview questions were accordingly generated in order to collect more detailed data about the items asked in the questionnaire.

#### **3.4.4. Structured Interview for EFL Students**

The structured interview for EFL students used in this study (Appendix 6) was prepared to collect detailed data from 20 EFL students who participated in the questionnaire, which was the first step of the data collection tools used in this study, and stated their preference as a volunteer to contribute to the interview by taking part in it. The objective of this interview is to gather in-depth data from the participant students and solely volunteer participants who took part in it; therefore, the voluntary sampling method was applied.

The interview is composed of two parts. The first section presents seven questions based on certain variables, 3 of them are regarding the demographic information of EFL students, and the last four questions investigate the social status of the participants. In the second part of the interview, there are 11 items including 26 questions to collect more detailed information and clarify the participants' responses about their perceptions on the benefits and potential challenges of EIN LCA in terms of online language learning. The interview items and questions were prepared through negotiations with the supervisor of the researcher and an expert from the field. The interview items and questions were specified upon the questionnaire analysis results. The items in the questionnaire with the highest, average, and lowest mean ratings were determined, and the interview questions were prepared accordingly to gather detailed information about the items in the questionnaire. All participant EFL students were asked the same interview items and questions to increase the consistency and reliability

level of the data gathered; thus, the interview type was specified as structured (Mathers et al., 1998). Taking the students' English language competence into consideration, the interviews were conducted in the students' native language" (i.e., Turkish) and in written form (Appendix 7). Since the responses were given in students' native language, they were translated into English by the researcher to be analyzed and then back-translated into Turkish by an expert from the field of language to assure the translation was valid.

### **3.5. Data Collection Procedures**

As stated earlier, data was collected from EFL students and teachers during the Spring term of the 2020-2021 academic year. It is crucial to obtain ethical approval before any data collection is initiated. Initially, the necessary ethical procedures were completed. The study was conducted in two phases: The first phase of the study involved administering the questionnaire to students and the teachers.

Three weeks after the implementation of the questionnaire with both groups of participants, written online interviews were held with the 27 teachers and the 20 students to obtain an "in-depth exploration of a central phenomenon" (Creswell, 2004, p. 203). The participants who were interviewed had expressed their will through the questionnaire. The following section provides a detailed description of the implementation of the research.

In addition, detailed instruction was provided in the questionnaires and the interviews to the participants related to the study, and their approval to participate in the study was obtained through data collection tools. Additionally, confidentiality and anonymity of the participants were ensured during the study.

The structured interview was held so as to obtain an in-depth inquiry of EFL teachers' and the students' opinions about the benefits and challenges of EIN LCA and to uncover the meanings both cohorts of participants attach to their experience in EIN online learning and teaching platform.

### **3.6. Data Analysis**

Data analysis was carried out in two stages. First quantitative data from the students' questionnaire and the teachers' questionnaire were analyzed separately. In addition, qualitative data from the structured interviews were analyzed for both groups

of research participants by using the thematic analysis method. The following section offers detailed information about data analysis.

### **3.6.1. Analysis of the Descriptive Statistics**

The information derived from the questionnaire was entered into a computer to be evaluated by a statistical package program called Statistical Package for Social Sciences (SPSS) 21.0 version. In this study, before performing the different tests, data is checked for normal distribution. To answer the first research question of the present study, descriptive statistics were conducted to reveal mean and standard deviation scores of the 22 Likert scale items and to depict the perspectives of learners on online language learning through EIN Live Class Application in terms of its benefits and potential challenges.

In order to see whether the self-reported perspectives differ based on the different variables, which include grade and the school type for students, and gender and age for the teachers, Mann Whitney U Test was run. Additionally, Kruskal Wallis Test was employed to understand if the difference is significant or not. Findings from all these analyses are illustrated in Tables 1-5, and they are discussed in Chapter 4.

### **3.6.2. Analysis of the Qualitative Data**

To analyze the qualitative data collated from the structured interviews, the interview analysis method proposed by McCracken (1988) was adopted. Accordingly, the transcribed interviews were read, and significant emerging themes were identified based on codes and patterns for individual students. Then, similar patterns across different students are collated under the same theme. Some excerpts representing the teachers' and the students' opinions are presented verbatim in Chapter 4 of the thesis to illustrate the participants' experience with the online EIN classes from various perspectives.

To ensure confidentiality, the real names of the participants are kept anonymous. Namely, each participant was assigned a different code such as S1 (Student 1) and T1 (Teacher 1). Then, the written form of data was read over and over to obtain a general view of the information. During this step, short notes were taken, and general thoughts about the data were recorded. The results were sorted out into categories in order to

interpret and discuss the findings. The findings were categorized under themes derived from gathered data according to the research questions.

Another issue to be considered in analyzing qualitative data is related to reliability. To achieve inter-rater reliability, the complete interview data were analyzed independently by another researcher. As a result, a reasonably high degree of agreement between the researcher and the co-rater (87.5%) was identified. Furthermore, the supervisor of the study checked a sample of the data. For intra-rater reliability, the researcher reviewed the whole interview data after a particular time had passed from the initial analysis. In light of all these, all of the categories were rechecked and finalized. To assure trustworthiness in the qualitative data analysis part of the study, member checking was established with research participants (Creswell, 2009). Furthermore, the researcher is familiar with the use of EIN and has been using this platform for an extended period of time for educational purposes.

To conclude, this chapter has given information regarding the methodology of the present study. The design of the study, as the quasi-experimental research, participants and context of the study, data collection instruments, and data analysis methods has been described. Findings obtained from the questionnaires and interviews will be dealt with in the next chapter.

## CHAPTER IV

### DATA ANALYSIS AND FINDINGS

This chapter presents the main findings obtained from the questionnaire and the interviews. Firstly, findings from the “EFL Teachers’ Perceptions of EIN Live Class Application” and the “EFL Students’ Perceptions of EIN Live Class Application” questionnaires are presented. Next, findings from the interviews are described. To address each research question, a mixed-method research design was adopted, and quantitative and qualitative approaches were employed to collect data. The data was evaluated via a number of statistical methods including descriptive statistics to reveal mean and standard deviation scores of the Likert scale items in the questionnaire. In order to observe the variables on the self-reported perspectives of the participants, Mann Whitney U Test was run, and Kruskal Wallis Test was used to understand whether the self-reported perspectives differ based on certain variables. In addition, content analysis was applied to evaluate the qualitative data from the interviews.

#### 4.1. Analysis of Descriptive Statistics

In the analysis of the quantitative data from the student and the teacher questionnaire, demographic information of participants and frequencies in relation to certain variables were calculated. Such variables in the student questionnaire were gender, grades, the school type, home internet connection, availability of a smartphone or a computer, and having a personal room. In the Teacher Questionnaire, the variables included gender, age, teaching experience, educational status, and whether the teachers received EIN training. Descriptive statistics were employed to reveal mean and standard deviation scores of the 22 Likert scale items. Then, the mean scores and standard deviation for each sub-scale were calculated.

## Demographic Information

Table 2.

### *Demographic Information about Students*

<b>Variables</b>		<b>f</b>	<b>%</b>
Gender	Female	196	60.3
	Male	122	37.5
	Not specified	7	2.2
Grade	Grade 4	5	1.5
	Grade 5	9	2.8
	Grade 6	15	4.6
	Grade 7	56	17.2
	Grade 8	31	9.5
	Grade 9	75	23.1
	Grade 10	78	24.0
	Grade 11	46	14.2
	Grade 12	10	3.1
	School Type	Primary	5
Secondary		111	34.2
High-school		209	64.3
Home Internet Connection	Yes	240	73.8
	No	85	26.2
Availability of Smart Phone or P.C.	Yes	252	77.5
	No	73	22.5
Availability of Personal Smartphone or P.C.	Yes	120	36.9
	No	205	63.1
Personal Room	Yes	179	55.1
	No	146	44.9

Table 2 displays the personal information of 325 student participants. As seen from Table 2, in terms of the distribution of male and female participants, about 37.5 % of the participants are male (f: 122) and 60.3% female (f: 196). Namely, there are more female participants than male participants. With regard to grades of students, most participants were in grade 7, grade 9, and grade 10. Accordingly, 24.0% of the participants (f: 78) was attending grade 10 in their school education, 23.1 % of the participants (f: 75) was grade 9, followed by 17.2 % of the participants (f: 56) who was attending grade 7, and 14.2 % of the participants (f: 46) was attending grade 11 in their school education. In addition, 64.3 % of the participants are high school students (f: 209); 34.2 % of the participants are secondary school students (f: 111) while the rest are primary school students (f:5; 1.5 %).

Another item in the questionnaire aimed to find out whether participants had an

internet connection at home, availability of smartphones or computers along with a personal room. The responses given to those questions revealed that most participants (f:240; 73.8%) had internet connection while 26.2 % of the participants (f: 85) had no internet connection. In addition, 77.5 % of the participants (f: 252) indicated that they had smartphones and computers while 22.5% of the participants (f: 73) had no smartphones and computers. The questionnaire also intended to determine the student participants' possession of those smartphones and computers, and it revealed that 36.9% of the participants (f: 120) had smartphones and computers while the majority (f: 205; 62.1%) had no personal smartphones and computers. Lastly, 55.1% of the participants indicated they had personal rooms, whereas 44.9 % of the participants (f: 146) had no personal rooms.

Table 3.  
*Demographic Information about Teachers*

<b>Variables</b>		<b>f</b>	<b>%</b>
Gender	Female	55	67.9
	Male	23	28.4
	Not specified	3	3.7
Age	21-25	19	23.5
	26-30	26	32.1
	31-35	22	27.2
	36-40	5	6.2
	41 and more	9	11.1
	Teaching Experience	1-5 year(s)	38
	1-5 year(s).	2	2.5
	6-10 years	20	24.7
	11-15 years	7	8.6
	16-20 years	7	8.6
	20 years and more	7	8.6
Educational Status	Bachelors's Degree	54	66.7
	Post Graduate	27	33.3
Type of School	Primary School	10	12.3
	Secondary School	35	43.2
	High School	32	39.5
EIN Training	Yes	36	44.4
	No	45	55.6

Table 3 demonstrates the demographic information about the teacher participants. According to Table 3, the female participants (f:55. 67.9%) outnumber the

male participants (f: 23; 28.4%). The majority of the participants had Bachelors's degree (f:54; 66.7%) while the rest had a postgraduate degree (f:27; 33.3%). With regard to years of teaching experience, most participants had between 1-5 years of teaching experience at the time the present study was conducted. Accordingly, 46.9% of the participants (f: 38) had been working between 1-5 years, and 24.7% (f: 20) displayed 16-10 years of experience in teaching English. As for the age distribution of the teacher participants, it ranges from 21-25 to 41 and more. Accordingly, 32.1 % of the participants (f: 26) is at the age of 26-30; 27.2 % of the participants (f: 22) is at the age of 31-35, and 23.5 % of the participants (f: 19) is at the age of 21-25 while the rest is grouped at the age of "36-40" and "41 and more". In addition, the majority of the teacher participants seem to be working in secondary schools (f: 35; 43.2%) and high schools (f: 32. 39.5%) while 12.3 % of the participants (f: 10) are working in primary schools. As for the final question on this part of the questionnaire, it aimed to find out whether participants received any training on the use of EIN. The responses given to this item revealed that most participants (f: 45; 55.6% had not received any training on the use of EIN, and only a few participants (f: 36; 44.4 %) responded positively to this statement.

**Research Question 1. What are the EFL students' perspectives on online language learning through the EIN Live Class Application in terms of its benefits and potential challenges?**

To answer the first research question of the present study, descriptive statistics were conducted to depict the perspectives of learners on online language learning through EIN Live Class Application in terms of its benefits and potential challenges.

Table 4.

*General Perspectives of Students on Online Language Learning through EIN*

Items	N	Min.	Max.	$\bar{x}$	SD.
<b>22</b> I feel face-to-face contact with my teachers is necessary for learning to occur.	325	1.0	5.0	4.012	1.3877
<b>17</b> I lose connection during live classes because of poor internet.	325	1.0	5.0	3.674	1.4776
<b>15</b> I face some problems before and during live classes.	325	1.0	5.0	3.557	1.4210
<b>18</b> I find it difficult to follow the class during live classes.	325	1.0	5.0	3.480	1.4647
<b>19</b> Getting prepared for live classes is more challenging than traditional classes at school.	325	1.0	5.0	3.317	1.5854
<b>13</b> I can easily get feedback from my teachers during live classes.	325	1.0	5.0	3.292	1.3780
<b>2</b> I believe EIN LCA helps me learn English.	325	1.0	5.0	3.117	1.3489
<b>20</b> I believe the duration of live classes which is 30 minutes is not sufficient.	325	1.0	5.0	3.095	1.4741
<b>1</b> I think Educational Informatics Network (EIN) Live Class Application (LCA) makes learning difficult.	325	1.0	5.0	3.043	1.3579
<b>3</b> I feel comfortable communicating online with my teachers and classmates.	325	1.0	5.0	3.034	1.4621
<b>16</b> I have difficulty following my weekly schedule in EIN LCA.	325	1.0	5.0	2.988	1.4761
<b>14</b> Doing my homework assigned online in EIN LCA is time-consuming.	325	1.0	5.0	2.985	1.4412
<b>4</b> I think EIN LCA reduces the amount of time I spend on my studies.	325	1.0	5.0	2.815	1.3664
<b>6</b> I think learning English in EIN LCA appeals to my learning style.	325	1.0	5.0	2.738	1.3975
<b>21</b> I believe that I can improve my English language skills the same in EIN LCA and traditional classrooms at school.	325	1.0	5.0	2.711	1.3343
<b>7.</b> I think that EIN LCA should be incorporated into the curriculum.	325	1.0	5.0	2.671	1.3168
<b>12</b> EIN LCA makes learning English easier for me.	325	1.0	5.0	2.649	1.3766
<b>11</b> I feel more willing to participate in the classes on EIN LCA than traditional classes at school.	325	1.0	5.0	2.628	1.4380
<b>9</b> I can collaborate with other students while learning English during live classes.	325	1.0	5.0	2.594	1.3590
<b>8</b> English language classes are more enjoyable for me with EIN LCA.	325	1.0	5.0	2.511	1.3980
<b>5</b> I believe learning English in EIN LCA is more motivating than face-to-face education in traditional classrooms.	325	1.0	5.0	2.492	1.5488
<b>10</b> In EIN LCA. I can focus on my English language classes for a longer time than traditional classes at school.	325	1.0	5.0	2.471	1.3597

Table 4 displays the descriptive statistics of students' self-reported perspectives of the items in descending order. The students' reports showed that in *online language learning through EIN*, Item 22 "I feel face-to-face contact with my teachers is necessary for learning to occur " takes place at the top with a mean value of  $\bar{x} = 4.012$ , Item 17 which refers to "I lose connection during live classes because of poor internet," with a mean value of  $\bar{x} = 3.674$ , and Item 15 "I face some problems before and during live classes" follows with a mean value of  $\bar{x} = 3.557$ . On the other hand, Item 8 which states that "English language classes are more enjoyable for me with EIN LCA" takes its place at the bottom with a mean value of  $\bar{x} = 2.511$  along with Item 5 stating that "I believe learning English in EIN LCA is more motivating than face-to-face education in traditional classrooms" with a mean value of  $\bar{x} = 2.492$ , and with Item 10 mentioning "In EIN LCA I can focus on my English language classes for a longer time than traditional classes at school" with a mean value of  $\bar{x} = 2.471$ .

The student's scale consists of two subscales: the benefit sub-scale and the challenge sub-scale. The benefit subscale is composed of Item 2., Item 3., Item 4., Item 5., Item 6., Item 7., Item 8., Item 9., Item 10., Item 11., Item 12., Item 13 and Item 21 while the challenge sub-scale is composed of Item 1., Item 14., Item 15., Item 16., Item 17., Item 18., Item 19., Item 20 and Item 22.

Table 5.

*Students' Perspectives on Online Language Learning through EIN in terms of Potential Challenges*

Items	N	Min.	Max.	$\bar{x}$	SD.
<b>22</b> I feel face-to-face contact with my teachers is necessary for learning to occur.	325	1.0	5.0	4.012	1.3877
<b>17</b> I lose connection during live classes because of poor internet.	325	1.0	5.0	3.674	1.4776
<b>15</b> I face some problems before and during live classes.	325	1.0	5.0	3.557	1.4210
<b>18</b> I find it difficult to follow the class during live classes.	325	1.0	5.0	3.480	1.4647
<b>19</b> Getting prepared for live classes is more challenging than traditional classes at school.	325	1.0	5.0	3.317	1.5854
<b>20</b> I believe the duration of live classes which is 30 minutes is not sufficient.	325	1.0	5.0	3.095	1.4741
<b>11</b> I think Educational Informatics Network (EIN) Live Class Application (LCA) makes learning difficult.	325	1.0	5.0	3.043	1.3579
<b>16</b> I have difficulty following my weekly schedule in EIN LCA.	325	1.0	5.0	2.988	1.4761
<b>14</b> Doing my homework assigned online in EIN LCA is time-consuming.	325	1.0	5.0	2.985	1.4412

Table 5 displays students' perspectives on online language learning through EIN in terms of potential challenges. The students' reports showed that in *online language learning through EIN*, Item 22 "I feel face-to-face contact with my teachers is necessary for learning to occur" takes place at the top with a mean value of  $\bar{x}=4.012$ , Item 17 "I lose connection during live classes because of poor internet" with a mean value of  $\bar{x}=3.674$ , and Item 15 "I face some problems before and during live classes," follows with a mean value of  $\bar{x}=3.557$ . On the other hand, Item 16, "I have difficulty in following my weekly schedule in EIN LCA" takes its place at the bottom with a mean value of " $\bar{x}=2.988$ , along with Item 14 "Doing my homework assigned online in EIN LCA is time-consuming" with a mean value of  $\bar{x}=2.985$ .

Table 6.

*Students' Perspectives on Online Language Learning through EIN in terms of Benefits*

	N	Min.	Max.	$\bar{x}$	SD.
<b>13</b> I can easily get feedback from my teachers during live classes.	325	1.0	5.0	3.292	1.3780
<b>2</b> I believe EIN LCA helps me learn English.	325	1.0	5.0	3.117	1.3489
<b>3</b> I feel comfortable communicating online with my teachers and classmates.	325	1.0	5.0	3.034	1.4621
<b>4</b> I think EIN LCA reduces the amount of time I spend on my studies.	325	1.0	5.0	2.815	1.3664
<b>6</b> I think learning English in EIN LCA appeals to my learning style.	325	1.0	5.0	2.738	1.3975
<b>21</b> I believe that I can improve my English language skills the same in EIN LCA and traditional classrooms at school.	325	1.0	5.0	2.711	1.3343
<b>7</b> I think that EIN LCA should be incorporated into the curriculum.	325	1.0	5.0	2.671	1.3168
<b>12</b> EIN LCA makes learning English easier for me.	325	1.0	5.0	2.649	1.3766
<b>11</b> I feel more willing to participate in the classes on EIN LCA than traditional classes at school.	325	1.0	5.0	2.628	1.4380
<b>9</b> I can collaborate with other students while learning English during live classes.	325	1.0	5.0	2.594	1.3590
<b>8</b> English language classes are more enjoyable for me with EIN LCA.	325	1.0	5.0	2.511	1.3980
<b>5</b> I believe learning English in EIN LCA is more motivating than face-to-face education in traditional classrooms.	325	1.0	5.0	2.492	1.5488
<b>10</b> In EIN LCA. I can focus on my English language classes for a longer time than traditional classes at school.	325	1.0	5.0	2.471	1.3597

Table 6 displays students' perspectives on online language learning through EIN in terms of its benefits. The students' reports showed that in *online language learning through EIN*, Item 13 (I can easily get feedback from my teachers during live classes) takes place at the top with a mean value of  $\bar{x} = 3.292$ , Item 2 (I believe EIN LCA helps me learn English" with a mean value of  $\bar{x} = 3.117$ , and Item 3 "I feel comfortable communicating online with my teachers and classmates" follow with a mean value of  $\bar{x} = 3.034$ . On the other hand, Item 5 "I believe learning English in EIN LCA is more motivating than face-to-face education in traditional classrooms" takes place at the bottom with a mean value of " $\bar{x} = 2.492$ , along with Item 14 "In EIN LCA I can focus on my English language classes for a longer time than traditional classes at school" with a mean value of  $\bar{x} = 2.471$

Table 7.

*Descriptive Statistics of Total Mean Scores of Subscales in Students' Perceptions*

	N	Min.	Max.	$\bar{x}$	SD.
Challenge Sub-scale	325	1.00	5.00	3.3501	.83394
Benefit Sub-scale	325	1.00	5.00	2.7479	.75018

The descriptive statistics regarding the dimensions of the scale are displayed in Table 7. The dimension of the "benefits" owns a mean value of ( $\bar{x} = 2.747$ ) while the dimension of "potential challenges" owns a mean value of ( $\bar{x} = 3.350$ ).

**Research Question 2. Do gender, grade, and school type affect EFL students' perceptions of EIN LCA in terms of its benefits and potential challenges?**

The second research question of the present study aimed to unravel whether there is a significant difference among various variables such as gender, grade, and school types in terms of benefits and potential challenges. In order to see whether gender influences the self-reported perspectives of the students, Mann Whitney U Test was run. Additionally, Kruskal Wallis Test was employed to understand whether the self-reported perspectives differ based on the grade and the school type variable. These non-parametric tests were run because the normality test results of those variables were under 0.05. ( $p < .05$ ). Findings are illustrated in Tables 8-10.

Table 8.

*Mann Whitney U Test Results for Gender Variable*

Gender	N	X	Z	p
Female	196	161.90	-591	.554
Male	122	155.64		

p<0.01

Table 8 displays the *Mann Whitney U Test Results for Gender Variable*. The results of the analysis of the Mann Whitney U Test Results did not show any significant differences based on the students' perceptions of EIN in terms of its benefits and challenges based on the gender variable. It may be concluded that both male and female participants had similar experiences during online education.

Table 9.

*Kruskal Wallis Test Results for Grade Variable*

Grade	N	$\bar{x}$	Chi-square	df	p
Grade 4	5		143.405	8	.742
Grade 5	9		197.67		
Grade 6	15		191.17		
Grade 7	56		166.26		
Grade 8	31		175.82		
Grade 9	75		151.05		
Grade 10	78		159.51		
Grade 11	46		158.53		
Grade 12	10		178.75		

p<0.01

As seen from Table 9, Kruskal Wallis Test Result does not indicate a significant difference in the students' perceptions of EIN in terms of its benefits and challenges based on the grades. Namely, no matter what the student participants' grades were, they shared similar beliefs in relation to the benefits and challenges offered by EIN.

Table 10.

*Kruskal Wallis Test Results for School Type*

<b>School Type</b>	<b>N</b>	<b><math>\bar{x}</math></b>	<b>Chi-square</b>	<b>df</b>	<b>p</b>
Primary School	5	143.40	2.786	2	.248
Secondary School	111	174.84			
High school	209	157.18			

p&lt;0.01

As illustrated in Table 10, Kruskal Wallis Test Result does not indicate a significant difference in the students' perceptions of EIN in terms of its benefits and challenges based on the school types. Similar to the findings obtained above, student participants from primary to high schools seemed to have similar beliefs in terms of the benefits and challenges they experienced through using EIN online education.

**Research Question 3. What are the EFL teachers' perspectives on online language teaching through EIN Live Class Application in terms of its benefits and potential challenges?**

To answer the third research question of the present study, descriptive statistics were conducted to depict the perspectives of teachers on online language learning through EIN Live Class Application in terms of its benefits and potential challenges.

Table 11.

*General Perspectives of Teachers on Online Language Learning through EIN*

	N	Min.	Max.	$\bar{x}$	SD.
<b>22</b> I feel face-to-face contact with my students is necessary for learning to occur.	81	2.0	5.0	4.284	.9648
<b>17</b> My students and I lose connection during live classes because of poor internet.	81	1.0	5.0	4.099	1.0678
<b>15</b> I face some problems before and during live classes.	81	1.0	5.0	3.901	1.1248
<b>14</b> Preparing weekly or daily schedules in EIN LCA is time-consuming.	81	1.0	5.0	3.617	1.2305
<b>1</b> I think Educational Informatics Network (EIN) Live Class Application (LCA) can contribute to teaching problems.	81	1.0	5.0	3.519	.9888
<b>3</b> I feel comfortable communicating online with my students.	81	1.0	5.0	3.395	1.3480
<b>7</b> I think that EIN LCA should be incorporated into the curriculum.	81	1.0	5.0	3.358	1.2380
<b>13</b> I can easily give feedback to my students during live classes.	81	1.0	5.0	3.247	1.2603
<b>21</b> I believe EIN LCA makes a great contribution to the improvement and quality of education.	81	1.0	5.0	3.210	1.2218
<b>16</b> I have difficulty allocating my classes according to my weekly schedule in EIN LCA.	81	1.0	5.0	3.185	1.0501
<b>6</b> I think EIN LCA appeals to students with different learning styles (verbal, auditory, visual, numerical, social, individual, etc.)	81	1.0	5.0	3.074	1.1809
<b>12</b> EIN LCA makes teaching English easier.	81	1.0	5.0	2.778	1.2349
<b>8</b> Lessons are more enjoyable with EIN LCA.	81	1.0	5.0	2.704	1.2293
<b>19</b> Preparing materials for live classes is challenging.	81	1.0	5.0	2.679	1.2533
<b>18</b> I find it difficult to manage the class during live classes.	81	1.0	5.0	2.593	1.1914
<b>4</b> I think EIN LCA reduces my workload.	81	1.0	5.0	2.568	1.2741
<b>5</b> I believe teaching in EIN LCA has a positive effect on teacher motivation.	81	1.0	5.0	2.531	1.2154
<b>21</b> I believe that my students can improve their language skills the same in EIN LCA and traditional classes at school.	81	1.0	5.0	2.469	1.1946
<b>10</b> In EIN LCA. I can gather my students' attention for a longer time than traditional classes at school.	81	1.0	5.0	2.395	1.2008
<b>20</b> I believe the duration of live classes which is 30 minutes is not sufficient.	81	1.0	5.0	2.383	1.4540
<b>9</b> Having classes through EIN LCA increases the interaction with my students.	81	1.0	5.0	2.321	1.1600
<b>11</b> Participation in the classes I teach on EIN LCA is higher than traditional classes at school.	81	1.0	5.0	1.654	.9639

Table 11 displays the descriptive statistics of teachers' self-reported perspectives of the items in descending order. The teachers' reports showed that in *online language learning through EIN*. Item 22 (I feel face-to-face contact with my students is necessary for learning to occur .) takes place at the top with a mean value of ( $\bar{x}=4.284$ ), Item 17 (My students and I lose connection during live classes because of poor internet ) with a mean value of ( $\bar{x}=4.099$ ) and Item 15 (I face some problems before and during live classes.) follow with a mean value of ( $\bar{x}=3.901$ ). On the other hand, Item 20 (I believe the duration of live classes which is 30 minutes is not sufficient.) takes its place at the bottom with a mean value of ( $\bar{x}= 2.383$ ) along with Item 9 (Having classes through EIN LCA increases the interaction with my students .) with a mean value of ( $\bar{x}=2.321$ ) and with Item 11 (Participation in the classes I teach on EIN LCA is higher than traditional classes at school.) with a mean value of ( $\bar{x}=1.654$ ).

The teacher scale consists of two subscales: the benefit sub-scale and the challenge subscale. The group of benefit subscale is composed of Items 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, and Item 21, while the challenge sub-scale is composed of Item 1, 14, 15, 16, 17, 18, 19, 20, and Item 22.

Table 12.

*Teachers' Perspectives on Online Language Learning through EIN in terms of Potential Challenges*

	N	Min.	Max.	$\bar{x}$	SD.
<b>22</b> I feel face-to-face contact with my students is necessary for learning to occur.	81	2.0	5.0	4.284	.9648
<b>17</b> My students and I lose connection during live classes because of poor internet.	81	1.0	5.0	4.099	1.0678
<b>15</b> I face some problems before and during live classes.	81	1.0	5.0	3.901	1.1248
<b>14</b> Preparing weekly or daily schedules in EIN LCA is time-consuming.	81	1.0	5.0	3.617	1.2305
<b>1</b> I think Educational Informatics Network (EIN) Live Class Application (LCA) makes learning difficult.	81	1.0	5.0	3.519	.9888
<b>16</b> I have difficulty allocating my classes according to my weekly schedule in EIN LCA.	81	1.0	5.0	3.185	1.0501
<b>19</b> Preparing materials for live classes is challenging.	81	1.0	5.0	2.679	1.2533
<b>18</b> I find it difficult to manage the class during live classes.	81	1.0	5.0	2.593	1.1914
<b>20</b> I believe the duration of live classes which is 30 minutes is not sufficient.	81	1.0	5.0	2.383	1.4540

Table 12 displays *Teachers' perspectives on online language learning through EIN in terms of potential challenges*. The teachers' reports showed that in *online language learning through EIN*, Item 22 which is related to "I feel face-to-face contact with my students is necessary for learning to occur" takes place at the top with a mean value of  $\bar{x}=4.284$ , Item 17 indicating "My students and I lose connection during live classes because of poor internet" with a mean value of  $\bar{x}=34.099$ , and Item 15 (I face some problems before and during live classes" , follow with a mean value of  $\bar{x} =3.901$ . On the other hand, Item 18 "I find it difficult to manage the class during live classes" takes its place at the bottom with a mean value of  $\bar{x} = 2.593$ , along with Item 20 "I believe the duration of live classes which is 30 minutes is not sufficient" with a mean value of " $\bar{x}=2.383$ .

Table 13.

*Teachers' Perspectives on Online Language Learning through EIN in terms of Benefits*

	<b>N</b>	<b>Min.</b>	<b>Max.</b>	<b><math>\bar{x}</math></b>	<b>SD.</b>
<b>3</b> I feel comfortable communicating online with my students.	81	1.0	5.0	3.395	1.3480
<b>7</b> I think that EIN LCA should be incorporated into the curriculum.	81	1.0	5.0	3.358	1.2380
<b>13</b> I can easily give feedback to my students during live classes.	81	1.0	5.0	3.247	1.2603
<b>2</b> I believe EIN LCA makes a great contribution to the improvement and quality of education.	81	1.0	5.0	3.210	1.2218
<b>6</b> I think EIN LCA appeals to students with different learning styles (verbal, auditory, visual, numerical, social, individual, etc.)	81	1.0	5.0	3.074	1.1809
<b>12</b> EIN LCA makes teaching English easier.	81	1.0	5.0	2.778	1.2349
<b>8</b> Lessons are more enjoyable with EIN LCA.	81	1.0	5.0	2.704	1.2293
<b>4</b> I think EIN LCA reduces my workload.	81	1.0	5.0	2.568	1.2741
<b>5</b> I believe teaching in EIN LCA has a positive effect on teacher motivation.	81	1.0	5.0	2.531	1.2154
<b>21</b> I believe that my students can improve their language skills the same in EIN LCA and traditional classes at school.	81	1.0	5.0	2.469	1.1946
<b>10</b> In EIN LCA. I can gather my students' attention for a longer time than traditional classes at school.	81	1.0	5.0	2.395	1.2008
<b>9</b> Having classes through EIN LCA increases the interaction with my students.	81	1.0	5.0	2.321	1.1600
<b>11</b> Participation in the classes I teach on EIN LCA is higher than traditional classes at school.	81	1.0	5.0	1.654	.9639

Table 13 displays *Teachers' perspectives on online language learning through EIN in terms of benefits*. The teachers' reports showed that in *online language learning through EIN*. Item 3 "I feel comfortable communicating online with my students " takes place at the top with a mean value of  $\bar{x}=3.395$ , Item 7 "I think that EIN LCA should be incorporated in the curriculum" with a mean value of  $\bar{x}=3.358$ , and Item 13 "I can easily give feedback to my students during live classes," follow with a mean value of  $\bar{x}=3.247$ . On the other hand, Item 9 "Having classes through EIN LCA increases the interaction with my students" takes its place at the bottom with a mean value of  $\bar{x} = 2.321$ , along with Item 11 "Participation in the classes I teach on EIN LCA is higher than traditional classes at school" with a mean value of  $\bar{x}=1.654$

Table 14.

*Descriptive Statistics of Total Mean Scores of Subscales in Teachers' Perceptions*

	N	Min.	Max.	$\bar{x}$	SD.
Potential challenge sub-scale	81	2.11	4.56	3.3621	.55882
Benefit sub-scale	81	1.15	4.46	2.7464	.82387

The descriptive benefits of statistics regarding the dimensions of the scale are displayed in Table 14. The dimension of the "benefits" owns a mean value of ( $\bar{x}= 4.46$ ) while the dimension of "potential challenges" owns a mean value of  $\bar{x} = 4.56$ . This finding seems to suggest that teacher participants have a high perception of EIN live class application in terms of its potential challenges.

**Research Question 4. Do gender, age, educational status, teaching experience, and type of school affect EFL teachers' perceptions of EIN LCA in terms of its benefits and potential challenges?**

The first step in the analysis of the quantitative data was to run descriptive analysis to determine whether the data were distributed normally or not. In order to run parametric tests, the data must display normal distribution. When the test of normality was run for the teacher scale, it revealed that the significance value is  $p=.609$ ;  $df=81$  ( $p>.05$ ), which means that the data have a normal distribution. Therefore, to answer the fourth research question Independent Sample T-test and ANOVA tests were run to

display whether there is a significant difference based on the gender, age, educational status, teaching experience, and school type variables.

Table 15.

*Independent Sample T-test Results Based on the Gender and Educational Status*

	group	N	$\bar{x}$	SD.	t	p
Gender	Female	55	3.0165	.43610	.006	.995
	Male	23	3.0158	.57539		
Educational Status	Bachelor	54	3.0471	.49965	1.297	.198
	Postgraduate	27	2.9007	.43362		

According to Table 15, the mean score of the female group was found to be  $M = 3.0165$ , and the male group was  $\bar{x} = 3.0158$ . According to the results, *independent samples* T-test was performed to test whether there was a significant difference between female and male teachers and bachelor and postgraduate teachers. A significant difference was not found between the female and male teachers [ $t(76) = .0006$ . ( $p > .05$ )] based on the gender variable along with the educational status variable [ $t(79) = 1.297$ ; ( $p > .05$ )].

Table 16.

*One Way ANOVA test Results of Teachers' Perspectives Based on the Age, Experience and School Type*

	Variables	N	$\bar{x}$	SD.		KT	sd	$\chi^2$	F	Sig.
Age	21-25	19	3.0550	.35293	Between	1.078	4	.270	1.176	.328
					Groups					
	26-30	26	2.9143	.42002	Within	17.428	76	.229		
					Groups					
	31-35	22	3.0124	.60954						
	36-40	5	3.3727	.73392						
	41 & more	9	2.8788	.31980						
School Type	Primary School	10	3.3682	.46869	Between	2.121	4	.530	2.459	.053
					Groups					
	S. School	35	2.9221	.40108	Within	16.385	76	.216		
					Groups					
	High School	32	2.9787	.53546						
	P.&S. School	2	3.2500	.22499						
	P. & S.&H. School	2	2.5455	.00000						
Experience	1-5 year(s)	38	3.0562	.36630	Between	1.538	5	.308	1.359	.249
					Groups					
	1-5 year(s). 6-10 years	2	2.7273	.00000	Within	16.968	75	.226		
					Groups					
	6-10 years	20	2.9773	.62123						
	11-15 years	7	2.7403	.53636						
	16-20 years	7	3.2727	.61936						
	20 & more	7	2.8052	.32748						

Table 16 displays the One Way ANOVA test results of teachers' perspectives based on the age, school type, and experience variables. According to the Table 15, a significant difference was not found between the age groups [F= 1.176 (p >.05)], the school type groups [F= 2.459 (p >.05)], and for the variable of experience [F= 1.359 (p >.05)]. This finding seems to suggest that regardless of the type of school the teachers delivered their classes to use the EIN system and the years of teaching experience they had in the profession, they shared similar beliefs in terms of the benefits and challenges offered by EIN.

## 4.2. Analysis of the Interview

Of the 20 students who were interviewed, most were female (f:11), and 9 participants were male. Eight students were attending secondary school, another eight students to high school, and only four participant students were in primary education. It was found that most students had an internet connection (f:17), and they all had Smart devices at Home. As for having personal smart devices, half of them were found to have (f:10) while the remaining half (f:10) did not have personal smart devices. While most students had a personal room to study (f:14), some did not have a personal study room (f:6).

### 4.2.1. Analysis of the Student Interviews

#### 4.2.1.1. Students' Opinions Related to the Benefits of EIN LCA in Learning the English Language

Most students (f:18) found online activities used via the EIN LCA platform more fun, entertaining, and providing a lot of visual support games and videos. They stated that during the live classes, they could solve questions from different sources, play games, and watch videos related to the topic of the lesson. This allows them to access more information from various sources. Some students mentioned that they could make faster progress in learning English in the live classes held through EIN LCA, learn more efficiently, and feel motivated. The following interview excerpts illustrate students' opinions.

*“We can learn better through EIN LCA because our teachers share their screen, and I believe learning the English language is more enjoyable with interactive activities.” (S13)*

*“We watch videos and cartoons in English thanks to EIN LCA, and it makes our classes enjoyable.” (S18)*

*“It is practical and easier to learn vocabulary and make sentences when we learn English through EIN LCA. When we learn vocabulary, our teacher shows a picture and plays a video about the topic, and we learn it better.” (S20)*

Students also thought that EIN live classes are more efficient because they have a better opportunity to do the listening activities. One participant mentioned “*we cannot do them at school because we do not have the necessary equipment in the classroom.*” (S7). This is confirmed by another student who noted that “*In some schools, we do not have a projector, we cannot project the screen, but we can reflect it in live classes, so learning English through live classes is better for us for now.*”(S3)

In general, participants thought that both EIN LCA and face-to-face education are enjoyable to some extent; however, most expressed their preference towards face-to-face education because they found learning in the school environment more enjoyable due to a number of reasons. According to some, they can understand better in face-to-face education because they can communicate more easily with their teacher (S2), and there is more effective communication between students and the teacher and classmates. One participant (S13) remarked that face-to-face education is more fun because “*we can follow the lessons better.*” He added that “*there is a problem; the duration of the live class is too short, it is not enough, it would be better if the duration of it increases.*”

*“I think they are both fun, but face-to-face training is even more fun because I am with all my classmates and teachers at school, but in live classes, some of us cannot attend, and we cover the lesson with very few attendees.”* (S9)

*“Of course, face-to-face education at school is more enjoyable because I miss my friends and teacher so much. I learn better when I am in the same classroom with my friends.”* (S19)

Only two students found EIN LCA is more enjoyable “*because I feel very comfortable with learning on my chair and drinking tea. Our teacher speaks only when telling a topic, and that makes learning easier for me.*” (S20). Another participant mentioned that “*face-to-face education at school is better because I miss my friends and teacher so much. I learn better when I’m in the same classroom with my friends.*” (S19)

In relation to whether the students feel more motivated when learning English through EIN LCA, just under half the students (f:9) found online classes motivating and agreed that it affects them positively. The reason for this was because the teacher plays videos and songs during live classes. As one student stated “*I feel more motivated*

*because I think it is better to learn by talking to the teachers instead of watching the lesson on TV.” (S12)*

*“When we learn English vocabulary with visuals, I feel more motivated. We do not see visuals at school because we do not have an interactive smart board in our classroom.” (S18)*

*“When there is a listening text, teachers share the system sound with us. I listen on my headphones, and I can have a better idea of the pronunciations. The teacher wants us to take turns talking. It makes me respect my friends and to be respected.” (S20).*

Through the interview, the students were also asked their opinions about the homework assignments and whether their teachers assign online homework. Students unanimously agreed that (f:20) their teachers assign homework in online classes. They believed that online homework assignments are useful as it helps them understand the subject better and to revise the topic and thus remember it for a long time helps them reinforce what they learned that day. The type of assignments through EIN included some questions to be studied till the next lesson or the activities in textbooks.

*“I like the assignments with visuals. Our teacher assigns us with projects. I think they are really good because I can learn new general information, too.” (S20)*

In relation to how much time they usually spend on their studies and whether they think EIN LCA reduces the amount of time they spend on studies, most students (f:11) agreed that EIN LCA reduces the amount of time they spend on their studies because they thought that as they attend classes from home, it saves time. Some participants (f:7) expressed the reason in terms of not traveling to school every day, as illustrated below:

*“I spend 3 hours a day studying, and EIN LCA helps me reduce the time I spend for my studies because I do not have to prepare for and travel to school every day and I can study instead.” (S1)*

In support of this, another participant noted that *“Normally, a school day takes 4 or 5 hours, but EIN LCA reduces the time I spend on my studies because we are fasting and time flies in live classes.”* (S3). Another reason was related to flexibility in the school timetable and the tight schedule offered in terms of class time. As participants mentioned:

*“Normally, a class lasts for 40 minutes, but its duration is 30 minutes in live classes, yes it reduces the amount of time I spend for my classes, but I don't think 30 minutes will be enough for us.”* (S12)

*“Generally, I spend 6 hours a day because I am getting prepared for the university entrance exam. In a way, it reduces the time I spend because I do not have to travel to school during this process. However, since we do not have a certain schedule, on some days, we have 12 hours of live classes, and I feel like I have to devote my whole day for my studies.”* (S17)

#### **4.2.1.2. Challenges Students Experienced during Online Education**

Except for a few students (f:2) who stated that they do not experience much difficulty in online lessons, a majority of the participants (f:18) reported they experience problems while learning English through EIN LCA. These problems were mainly related to technical problems such as losing the internet connection causing students to lose their concentration in the lesson, as expressed in the following interview extracts:

*“Yes, I face some problems in live classes such as sound problems, poor internet connection, system dismissing me from the lesson and not being able to learn the topics covered in live classes. Also, it is really tiring for our teachers.”* (S11)

*“I lose my internet connection, and I cannot hear my teacher or my teacher cannot hear me. The place of the button to turn on the microphone switches all the time, and I cannot find it sometimes. I feel distracted, and I fall behind in my studies.”* (S15)

*“Yes, I face some problems. Sometimes I lose my internet connection or my teachers lose their connection. Also, my siblings distract my attention during live classes, or I cannot turn on my microphone to participate in the classes sometimes because they may suddenly enter my room and scream.” (S17)*

*“Sometimes the images freeze and the teacher’s voice sounds like a robot.” (S19)*

Most students (f:18) experienced various difficulties in attending online classes due to the teachers and students losing connection during live classes, power cuts, and being kicked off from the live classes.

*“The connection is disconnected, sometimes my mother runs out of mobile internet data, and I cannot attend classes. I can miss some lessons.” (S2)*

*“I have difficulty attending live classes sometimes. Yes, we lose connection because sometimes the app (EIN LCA) kicks us off from the live class and the teacher teaches something, and I miss it, so it affects my learning a little.” (S3)*

*“Yes, sometimes there may be problems in attending classes. The connection can be lost during the live class. When we get back to the lesson, I might miss some important parts.” (S6)*

*“Sometimes we lose connection, but not constantly. This is usually due to power cuts and poor internet connection. This causes a waste of time in the lesson.” (S9)*

*“Yes, sometimes I lose my connection, and I cannot hear my teacher's voice properly, so I have difficulty in following the lesson in live classes.” (S12)*

Poor internet connection was another difficulty expressed by student participants in following the lesson during live classes.

*“I have some difficulties. For example, I cannot attend some of my classes, and sometimes I lose my connection during the live class because of the poor internet signal we have in our house.” (S2)*

*“Losing internet connection caused students to fall behind, not to learn the topic covered in that class, students failing to hear the teacher properly.” (S4)*

Following online lessons from home created some challenges for the students, as stated by one student, *“Because there is a lot of noise at home and I can't pay attention to the lesson during live classes.” (S11)*. Another student noted that he has difficulty in following the lessons in live classes because he uses his parents' smartphones all the time, sometimes he has to share them with his siblings because they had live classes too, and unfortunately, they had only two smartphones at home (S13). Another student did not think staying in front of the computer for long was healthy because he remarked that he suffered from backache and eye pain problems(S15).

As mentioned in Chapter 2 of the study, one of the challenges students experience in online classes is the difficulty of focusing on lessons. The student participants' opinions related to whether they can focus on English classes in EIN LCA for a longer time than face-to-face education revealed interesting results. Interview findings revealed that most students (f:14) have a longer attention span in face-to-face education. Talking about the problems with online education, one student stated that *“I can't focus on the classes in EIN LCA because my eyes hurt because of looking at the screen for a long time.” (S1)*, another student added *“I can't focus on my lessons during live classes because it gets tiring to be on the screen all the time.” (S8)*

Others (f:12) complained about different environmental distractions due to having lessons at home *“No, I cannot focus on my classes because there are other things in the house that attract my attention.” (S2)*; *“No, I can't focus because school life is different from our home life. Problems such as family problems, noise, inability to focus may occur in the home environment.” (S6)* There were other distracting factors such as internet connection problems. A student mentioned that *“connection can be disconnected because of some reasons. And I cannot focus because the duration of the class is really short and not enough, leading to distraction easily in the home environment.” (S9)*

Those students (f: 6) who stated that their attention was distracted in online classes pointed out several reasons: *“I cannot focus on my classes for a long time in EIN LCA because there is always something distracting my attention at home.”* (S13), *“I cannot focus for longer because looking at a smartphone or tablet constantly makes my eyes tired and I feel distracted.”* (S14), other participants mentioned that *“No I cannot focus on my English classes for a long time because I can learn better at school, and I face some internet connection problems in live classes”* (S16), and *“I cannot focus on my classes for longer because my eyes hurt after a while, and sometimes I feel sleepy because I lie down during live classes”* (S17) and *“no because I am bored in live classes.”* (S18)

On the other hand, talking about the factors leading to students to concentrate on online classes, some (f: 5) students pointed out that the duration of online classes was shorter (30 minutes) compared to face to face lessons (45 minutes) and that they felt distracted after 30 minutes. *“Yes, I can. Face-to-face education is 45 minutes, and sometimes I feel like it will never finish. In live classes, it is 30 minutes, and when we start the class, there is no waste of time. We directly start the classes by having our teacher’s screen on our mobile devices.”*(S20), *“I can focus more on EIN LCA because we can turn off our camera and drink our water in live classes, but in face-to-face education, it is forbidden to take off our mask in class so I can focus more on live classes.”* (S3)

Collaboration with classmates is another important issue while learning English during live classes. This issue was directed to students through the interview. It was found that most students (f:12) were unable to collaborate in EIN LCA classes. Three main reasons were pointed out for students' lack of communication. First, some students (f: 2) thought that *“it is because the duration of the class is limited in EIN LCA, so we are doing activities with our teacher”* (S2), and that *“our teacher does not allow us to speak while doing activities or anything in live classes and nobody has such a desire to do so.”* (S4)

Computer-related problems such as having poor classroom management online issues was another reason preventing students from collaboration as expressed by some students (f:3). In relation to this, *“when everyone's microphone is on, it is like chaos.”* (S14). The students’ irregular attendance and/or lack of attendance was given as another problem *“I cannot collaborate with my friends because most of them cannot attend live*

classes.” (S11), and as expressed by another student *“We cannot collaborate because I think we need to be together to collaborate.”* (S14)

Some participants (f:7) thought that they were able to collaborate with their classmates while learning English during live classes to some extent. Two participants stated that they collaborate via chat room during live classes *“I can, we can talk and collaborate via chat room during the class.”* (S2). Another participant confirmed that *“our teacher gives us some time and allows us to discuss the topic or a question among ourselves. We can also collaborate via chat room during live classes.”* (S9) Other participants (f:5) stated that *“We help each other on issues that we cannot understand.”* (S6), *“I can partially collaborate with them since we cannot text each other on LCA. I can talk on the microphone when we do exercises.”* (S19)

The final question addressed to students was that if they think face-to-face education is necessary to learn English. While accepting the benefits of online education, a majority of the participants (f:15) agreed that face-to-face education is necessary, only some (f:5) stated that they could learn English through online education. Those who believed in the necessity of face to face education supported their reason as *“I think face-to-face education is necessary because I cannot always attend classes held through EIN LCA.”* (S2)

*“Yes, I think face-to-face education is necessary because I learn better when I am physically in my classroom with my teachers and friends. I believe my teachers teach better in the classroom at school.”* (S4)

Students also believe *“face-to-face education is more efficient”* (S5), *“it helps us to communicate better with our teachers at school and exchange ideas and practice our language skills”* (S14), *“face-to-face education is more motivating as we can easily ask questions and get answers”* (S8), *“face-to-face education is necessary to learn English because I feel more eager to learn English at school.”* (S11)

#### **4.2.2. Analysis of the Teacher Interviews**

In the present study, 27 EFL teachers were interviewed; most (f:19) were female, and 9 were male. As for the type of school they were teaching, most (f:12) were teaching in secondary education, followed by high school (f:10) and few teachers (f: 5)

were in primary education. Most teachers (f:17) did not receive EIN LCA training; some teachers (f:12) stated to have received training related to EIN LCA. All teachers had a Bachelor's degree; additionally, some (f:8) had a Postgraduate degree. Most teachers (f:22) had 1-5 year(s) teaching experience, two teachers had 6-10 years, another two 20 years and more, and one teacher had between 11-15 years. In relation to age, most teachers were between 26-30 years of age, followed by nine teachers who were 21-25, three teachers who were 31-35, and finally, two teachers who were 41 and more. It was found that 12 teachers were teaching secondary school students, ten were in high school, and the remaining five teachers were teaching primary school students.

#### **4.2.2.1. Teachers' Opinions about the Benefits of Online Education**

A great majority of the teachers believed that EIN LCA is beneficial in improving students' English language. It provides a better connection between students and teachers and helps teachers make use of the internet resources. With regard to language skills improvement, some participants (f:8) found EIN LCA beneficial, particularly for speaking and listening skills. As one participant stated *"In my classes, I can arrange some activities to enhance my students' skills of speaking, reading and listening."* (T26). The following interview excerpt highlights the opinion of most participant teachers:

*"English comprises four skills, and I believe those skills need to be acquired practically. LCA gives you the chance to be practical. While teaching face-to-face, you need to set the SmartBoard before starting your class, you need to plug your USB storage, and you need to fill the attendance sheet, etc. However, you don't waste time in live classes. You can give visual aids, examples, videos, authentic materials just in seconds. You can even turn your screen into a whiteboard."*(T17)

*"EIN LCA allows more and active listening activities, and it enables the students to feel more relaxed and comfortable, and they feel free to make mistakes during the learning process."*(T5)

*“EIN LCA enables teachers to reach the resources required for foreign language teaching more easily. Also, it allows listening activities to be done more frequently so students can have more opportunities than they can have in the class.”(T22)*

Some participants found *classroom management much easier than face-to-face education thanks to the developments in Live Class Application software*. One teacher participant noted that it is beneficial for teachers in terms of classroom management. Since the application has features such as microphone shutting of participants and raising or lowering hands, it is easier to control the flow of the lesson than in a traditional face-to-face classroom setting. Furthermore, he believed that *“if engaging interactive applications are used, like educational games, the live class application can be more effective and enjoyable than a face-to-face classroom setting.” (T8)*

Another benefit of EIN LCA is that it enables connection between teachers and students. Teachers thought that they could send homework assignments, make announcements, and also parents can be informed about the time of the lessons, and they can follow it. The use of the Internet through EIN is another benefit of online education as it provides a user-friendly online platform with endless resources and e-contents. It makes it easier to share videos, images, and slides. The participants believed that it is very advantageous in terms of exploring more varied materials, videos, games, and songs to catch students’ attention. It also gives instant access to use the Internet easily during classes.

*“It provides fast and easy access to information. It not only contains more diverse material support for students with different learning styles but also is a more convenient platform for using communicative methods instead of classical teaching methods. It is obvious that it saves time when I compare it to the time I spend teaching at school.”(T19)*

*“It enables us to use interactive materials that we do not always have the chance to use in all of our classes at school. In some ways, it is time-saving because we do not have to travel to school every day.”(T13)*

*“It gives us more opportunities to use technology. I can manage some visual and audio materials by using videos or photos easily and more comfortably than in the classroom. Saving time is the most important thing, of course. It presents the learning environment and interfaces customized for students. Secondly, students access streams, resources, and games.”(T23)*

Teachers’ opinions regarding the participation of students in EIN LCA classes revealed interesting findings. Most teachers (f: 25) complained of the low participation rate of the students to live classes because of the Internet connection problems, not having enough opportunity for internet access and lack of motivation, and reluctance to attend classes. Some participants stated that in most of the classes, half of the students and even a few students participate. One participant reported that the student attendance changes from class to class and even from school to school. She was teaching in two schools; one located in the city center, and the other in a village. Most of the students residing at the central part had a high participation rate. On the other hand, she reported that participation was not very high due to financial difficulties and lack of parent interest in some schools in the village. (T16) The following interview excerpts illustrate this point further:

*“The number of the students attending classes is very limited since most of the students don't have access to the Internet, or they don't have appropriate devices to attend the classes.”(T6)*

*“EIN live classes allow interaction with students through chats and comments, which helps to make the class more dynamic. However, all of my students didn't interact with each other. From my point of view, it is harder for students to grasp the concepts being taught. Also, online learning can cause social isolation. For example, some of my students muted their microphones, and they didn't want to communicate. Therefore, live classes can cause students to not develop needed communication skills.”(T11)*

*“Participation is really low in live classes. Most of our students cannot attend live classes because of mostly socio-economic reasons. Some of them do not have the necessary equipment, or they have to share the devices they use to*

*attend live classes with their siblings. However, there are some irresponsible students too, and they do not attend classes on purpose because they think that they are not going to fail at their classes, and they perceive this process as a summer vacation.”(T13)*

*“Unfortunately, participation is one of the worst aspects of live classes. By taking my opinions and observations regarding the participation of students in my live classes into consideration, I can absolutely say that the majority of the students do not participate in live classes. Some of them do not have the devices to connect to classes, and some of them have devices but do not have Internet. On the other hand, although some students have sufficient equipment to connect, they do not participate in live classes because they do not care about the lessons at all.” (T17)*

In relation to teachers’ opinions about the duration of live classes which is 30 minutes, a vast majority of the participants (f: 19) believed that the duration of online lessons is enough to keep the students' attention *“because even in 30 minutes we have many concentration problems, it could be harder if we extended the duration” (T2)*, *“students focus on even just 20 25 minutes as I can see” (T3)*. They stated that students might lose their attention on online platforms, and it becomes too difficult to draw their attention if students are bored. Some of the participants highlighted this point as follows:

*“I think it is like the golden ratio for our classes. It is neither too short nor too long. I believe the duration of classes should always be 30 minutes long from now on.”(T13)*

*“I think it is enough. I review the previous topics in one lesson and teach a new subject in the other one. This is fine considering the attention span of the students.”(T16)*

*“I strongly believe that the duration of classes must be a maximum of 30 minutes, so I think it is pretty enough to teach. Since I work with secondary school students, their attention span is much shorter compared to the higher*

*grade students. After 30 minutes, the students are bored, and it is tough to have their attention again.” (T17)*

Few participants did not think that 30 minutes of duration is enough because they stated that in some classes waiting for all students to participate in the class wastes time from the actual class hour, leaving them insufficient time to cover the day's content. One participant mentioned these challenges as follows:

*“I think it is absolutely not enough to cover my lesson. This duration could be more than 30 minutes. When you think about all of the problems that we face during the classes, we can't give all of the knowledge that we should to the students.” (T25)*

The participants mostly believed that EIN offers some advantages to learners with auditory and visual learning styles because they mostly used visual and auditory materials. As one participant mentioned *“I prepared online games, songs, and videos for each unit. I searched for new materials to help my students. I shared them in my live classes and also, I sent my materials to the students via our WhatsApp groups. For me, games and songs are really appealing to my students.” (T11)* Likewise, another participant thought *“EIN LCA appeals to students with different learning styles because I can use a variety of materials in my live classes thanks to my computer.” (T13)*

*“All of my colleagues know how effective the materials are in teaching English. Online education enables me to use the materials I want quickly and easily, so I think distance education is beneficial for students with different learning styles.”(T14)*

*“As I said, there are lots of visual and audio materials. I think this affects students' learning positively. For example, before I present a topic, I play a video or song that introduces the words related to the topic. Then I teach the lesson using live worksheets and do the exercises on that platform. Then we play a game related to the subject. When I am sure that they have learned well, we speak. It surely attracts someone's attention, and they learn.” (T16)*

*“I think it provides many opportunities like the technology is under your hands. You can open anything you wonder about immediately. Like you can watch videos, play online games, etc. For instance, I always brainstorm activities with wordart.com, I play games on word walls with the students, and I open some videos to familiarize the vocabulary, the culture, and the dialogues.” (T2)*

*“I think EIN LCA has both positive and negative issues over students' learning. Since it is a quieter and peaceful learning environment, some students can make use of this feature in a positive way. Nevertheless, being distant from the classroom environment can be an obstacle to their learning, especially for younger students. For different learning styles, I can say that live classes appeal to these styles. To exemplify, by screen sharing, I engage my students with different types of activities and learning resources that can appeal to different learning styles. Since students participate by themselves from their homes, LCA appeals to individual learning styles by nature. For social learning aspects, I generally interact with my students in the target language, so a social learning environment is created one way or another.” (T8)*

Participants believe that live classes affect their students' learning styles in a very positive way. *“For instance, sometimes some of my students may have difficulties understanding a vocabulary, and I directly google it on visuals and present them some videos about the related topic.” (T17).* Participants thought that it provides many opportunities. you can watch videos, play online games, etc. *“For instance, I always brainstorm activities with wordart.com, I play games on word walls with the students, and I open some videos to familiarize the vocabulary, the culture, and the dialogues.” (T2)*

*“One of the most effective ways to involve students in the lesson is to share content from their daily experience, so I add audio recordings, videos, or other visuals to posts, and it helps to draw the attention of students with different learning styles.” (T19).*

*“When technology interacts with education, it is more joyful. I use one website projecting school books with extra videos, songs that are beneficial and*

*entertaining for the learners. On the EIN platform, there are activities as well, but their level does not meet up to high school students' level. Animations are quite helpful for primary or secondary school students but not for high school students. These curriculum-related animations can be developed. Other documentaries work for students to broaden their horizons. There are eight types of multiple intelligences. I aim to use each type, for instance, I open a photograph or videos from Google. In one lesson, I opened an audio dictionary to have fun learning. Making them pair and work together or working alone activities help them to acquire the language. Needless to say, to achieve each type is almost impossible online.” (T20)*

*“We use different kinds of tools like flashcards, voice records, real-time talking, and chatrooms to interact with students.” (T21)*

*“It positively affects my students because I can use visual and auditory materials easily. I could need visual or verbal materials suddenly, and it just takes seconds to reach them and show students.”(T23)*

On the other hand, according to one participant *“Yes, EIN LCA appeals to students with different learning types but while they may develop their visual, verbal, auditory, individual skills, they may not develop social, numerical and kinesthetic skills. So it is hard to focus on every learning style because of the lack of suitable platforms. The lack of social activities is one of the most important problems.” (T9)*

#### **4.2.2.2. Teachers' Perceptions Related to Challenges in Online Education**

Teachers reported several problems they experienced while teaching English through EIN live classes. The connection problem was identified as the biggest problem when using EIN, which the participants found very annoying. As one participant stated *“I feel like I am talking to myself most of the time.” (T2)*. The connection problem is highlighted below:

*“The most frequent problem I face during LCA is the connection problems of both mine and the students. My students frequently say that they cannot see my*

*screen sharing since it is so blurry, so they cannot follow the activities, or they wait for their screen to be visible. Also, for internet connection, since some students have poor internet connections or incompetent devices in their home, they have problems when they want to participate in activities. Their sounds can be unintelligible, or they often disconnect. Apart from user-originated problems, the EIN website and Zoom application do not let students or teachers have a smooth lesson by disconnecting them or not letting them connect lessons in the first place.” (T8)*

*“Sometimes the Internet connection is lost, and this makes my lesson uncomfortable. Even if the Internet connection is not lost, there are some points where your voice sounds like a robot due to the poor connection quality. This situation makes communication very hard.” (T17)*

*“Due to internet connection, the words that we pronounce may not be heard or fully understood by students, and it wastes time. Since we cannot use body language and gestures, we have to spend more time on vocabulary teaching.” (T22)*

Related to the connection problem, another flaw was the occasional electricity cut, causing the teacher and the students to leave the class unwillingly. The next most frequently referred problem was low student attendance. The participants felt that having just a couple of students makes the process problematic because they could not decide whether to follow the curriculum or not. As one participant mentioned *“If I follow it, I will have to repeat everything once again when the schools are open, which is a big burden on my shoulders.” (T15)*

The participants unanimously agreed that power cuts and internet connection problems are encountered in most of the live classes, and these flaws disturb both the teacher and the lesson flow. They added that problems are inevitable because of the poor connection or old computers/tablets/phones. One participant mentioned that *“we suffer from weak connection during live classes, the reason for the Internet problems is the poor internet that students have at home.” (T6)*

*“Quality of internet connection of the students, EIN and Zoom servers are the reasons for disconnections. These disconnections affect the class in a bad way since students who have lost connection may miss important points about the class, and I have to repeat it when they reconnect.” (T8)*

*“There are many disconnections sometimes due to the teacher's internet, sometimes due to students’. The reason for the disconnections is due to the infrastructure of the province/district where education is provided. Unfortunately, the lesson cannot be taught at the desired level and efficacy, as disconnections disrupt the flow of the lesson.” (T14)*

*“Yes, we are. There are some reasons. Firstly, power-cuts happen a lot in the school area according to the students. Secondly, internet connection can be weak, and the system removes the students all of a sudden. Sometimes audio errors occur. We cannot hear each other properly. When these situations take place, the flow of the lesson is interrupted. Time is flying while we are getting back.”(T20)*

Preparing a daily or weekly schedule is an important responsibility in online education. Teachers are expected to allocate their classes. Teachers’ opinions related to the process of managing class allocation varied, but most teachers think the live class allocation process is time-consuming.

*“My schedule is prepared by the school administration. When I want to make changes, I allocate classes to the appropriate hours, taking care that they do not conflict with other classes. I do not have any difficulties in the allocation of live classes. I think class allocation is very easy.” (T14)*

*“The school administration prepares the weekly schedule for teachers, but we, as teachers, have to allocate our classes one by one every week. I think it is really time-consuming because EIN LCA works really slow in general, and I have to spend at least 2 hours to allocate my classes sometimes. Also, some teachers allocate their classes randomly, and it causes overlapping classes. When other teachers allocate a class to which the time I am supposed to allocate*

*according to the schedule, it is not easy to find who that teacher is and ask him or her to fix the problem. Sometimes I cannot allocate my classes because of these irresponsible teacher behaviors.” (T13)*

*“I have a pre-prepared timetable for my lessons, and I weekly or daily allocate them to the system. But it is time-consuming since everyone has a fixed timetable for their classes, so the system can define the lessons according to our timetables for each week. Also, especially on Sunday evenings and nights, it can be difficult for teachers to allocate their lessons to the system since it frequently crashes at these times.” (T8)*

*“I have a certain lesson schedule. Accordingly, I allocate my lessons the day before the live class. I do not have trouble allocating, but I have to remind each class of these lessons (to ensure high participation in the lesson). I also send a class link before the lesson. Yes, these are time-consuming processes like a teacher always ringing the school bell at school.” (T16)*

*“I would say allocating your lessons on the platform is the most time-consuming thing for the live classes. I allocate my live classes daily and sometimes weekly, even if it is very rare. It would be better if there was a schedule that automatically allocated your live classes. Especially during the busy times of the platform, allocating a lesson is almost impossible because there are thousands of people trying to do the same thing at the same moment.” (T17)*

In relation to the teachers’ opinions about whether they can gather students’ attention for a longer time in EIN LCA than face-to-face education, almost half of the participants stated that it is quite easy to get the attention of the students' thanks to various sources like PowerPoint slides, interactive textbooks, and videos related. Such participants believe that students can learn with the help of varied materials in online courses as teachers use e-contents and more Web2.0 Tools compared to the traditional face-to-face courses. They think that they are able to gather students' attention by using online games, songs, videos, interactive activities, and visuals through the help of EIN LCA.

*“Yes, I can because the number of the participants is really limited, so it is not very difficult to gather students' attention. Also, the online materials I use in my live classes are beneficial to keep students excited about what they are learning.”(T13)*

*“My students who are interested in face-to-face classes are also interested in the live classes. Because the material is diverse, it's easy to get their attention. However, there is also a situation like this; I could take care of my uninterested students more in face-to-face classes, but this is not possible in the live classes. Students who do not want to respond or participate can find many excuses in live classes. For instance, they shut their cameras, microphones or leave the class.” (T16)*

On the other hand, some mentioned that it is pretty challenging to keep the attention at the same level during the lesson due to many distractions such as cell phones or TV that may keep their attention away. They reported that *“It can never be compared to face-to-face education in terms of attention as Just a few students can focus on the lessons via EIN because they are distracted easily by the voice around themselves and by the notifications or messages they get. Furthermore, they may feel demotivated if they have connection problems.”(T2)* They believe classroom management and communication are more powerful in face-to-face education.

*“Actually, I cannot say the same things for all of my students. To compare my experiences of LCA and face-to-face education with my students, the first thing I would like to say is that most of the classes were more engaged, and they contributed more in the classes in face-to-face education than LCA. To illustrate, students who didn't raise their hands to participate in the activities in LCA confidently and eagerly participated in face-to-face education. So, I think I can't gather my students' attention for a longer time in LCA than face-to-face education. However, for some classes, it was nearly impossible for me to gather students' attention for even ten minutes in face-to-face education. They were better in face-to-face education in terms of attention and participation.”(T8)*

*“Since the cameras are turned off during the lesson, I do not know to what extent I can capture the attention of the students. I think just voice is not a sufficient criterion to check it.” (T19)*

*“I do not believe I can. In order to attract somebody’s attention, there should be fewer distracting factors. Of course, there are some distracting moments in both the classroom and EIN. However, managing these moments is comparatively easier in a classroom environment. In the class, you have a certain chance to gather their attention. Unfortunately, in online education, we are far from students and do not know what is happening out there. In my lessons, I encountered families, neighbors shouting at the children or talking to me as they shared the same room. It is naturally hard to draw students’ attention during online lessons.”(T20)*

In relation to teachers’ opinions related to the interaction with students during live classes, most participants (f:18) appeared to be unhappy about the interaction with their students. They noted that most of the time, students do not respond when the teacher calls out their names. One of the participants stated that *“since you cannot observe the students’ reaction when you teach a topic, the interaction is not sufficient enough.”* (T6). One participant listed some reasons that make online classes less interactive as follows:

*“Firstly, some of my students are shy, and they don’t want to join a speaking activity near their parents at home. Secondly, the number of students affects the interaction. Only a few students join online classes, and this makes the teaching process boring as the same students have to communicate or do the activities all the time. Because of social isolation, the students couldn’t develop social interaction. They experienced everything online, so this makes them exhausted. Same environment, same people at the same home.”* (T11)

*“Interaction with students during live classes is less than the interaction in the classroom environment, and it is not enough to teach foreign language effectively. Using body language and gestures, role-plays, showing unknown words with gestures in foreign language teaching makes the teaching more*

*effective and permanent. However, this interaction is not possible during live classes.” (T22)*

*“No, I am not happy with the interaction with my students during live classes. I cannot receive feedback in a good way because of the voice interruption. Students cannot hear my voice due to technical problems like the weakness of the internet. I always say, "Do you hear me guys?" or "Hello, are you there?". Nevertheless, I can't receive any response.” (T25)*

Those participants who expressed their satisfaction reported that it depends on the classroom. *“In some classes, I feel happy and sufficient. In others, I am not.” (T5).* One participant noted that *“I am pleased with some of the participants who want to learn the topic. They put in a great effort, and I get that.” (T20)*

Finally, in relation to teachers’ opinions related to face-to-face education, all of the participants thought of the necessity of face-to-face education for all kinds of teaching and learning. They believed that schools are not solely educational facilities but socializing areas for students. Moreover, they stated that communication in real environments is a crucial thing to learn a foreign language.

*“Absolutely yes because when you teach a language, you also present some points about the culture and norms of the same language. So, we do not see how our students' faces become when they learn new information about the language. This gives me a burden like worrying if the students understand the thing which we spend all lessons talking about or not.” (T6)*

*“I think face-to-face education is necessary because I cannot think of a language class without a classroom interaction, surely in the target language. Also, as I stated in previous questions, interactions should be maximized in a language class, and live classes have some barriers for interaction by nature.” (T8)*

*“Yes, I believe face-to-face education is necessary because conversation is everything in foreign language teaching. We should interact more so face-to-face interaction is the best for language education.” (T9)*

Participants believed that face-to-face education improves both educational and social skills, and it increases interaction between students and teachers. Students need to be in their social environment. They need to build relationships. Without providing their natural environment, the students will not be able to communicate and gain experience. One of the participant teachers mentions the significance of face-to-face education as “*I do not think it is necessary but compulsory because we need a real environment to get the students’ attention. We need eye contact, emotional reactions, etc. This encourages students. However, in live classes, the effectiveness of teachers is getting lower, I think.*” (T23)

*“Definitely, face-to-face education is more effective. I am not saying that English cannot be learned through distance education, but sharing the same atmosphere and interacting one-to-one increases the effectiveness of learning and teaching to a great extent.”* (T14)

*“Face-to-face education is essential to teach English. We can easily create a learning environment in the class. In face-to-face education, I can easily notice whether the students’ interests decrease, and I do different activities to gather their attention again. I can use my body language and gestures while teaching unknown words in the class.”* (T22)

This chapter has presented the essential research findings regarding the related literature and in accordance with the four research questions. The next chapter explores the conclusions extracted from the findings along with the discussions associated with the previous studies in the literature and suggestions for further studies.

## CHAPTER V

### DISCUSSION AND CONCLUSION

This chapter presents the summary of the whole study. Furthermore, the main findings are discussed in relation to the research questions and relevant previous studies shared in the literature review chapter. Finally, implications and recommendations along with the suggestions for further research are stated.

#### 5.1. Summary of the Study

The present study aimed to investigate and explore the Turkish EFL students' and teachers' perceptions of the benefits and challenges of the Educational Informatics Network (EIN-EIN) Live Class Application (LCA) in online language education. In addition, the study investigated if whether there was a significant difference in the perceptions of the participants in terms of gender, grade, and type of school on students' perceptions, and gender, age, educational status, teaching experience, type of school, and the availability of in-service training on how to use EIN LCA on teachers' perceptions. The specific context of the study consists of all primary, secondary and high schools in Hatay province in Turkey. The study is a mixed-methods research design gathering both quantitative and qualitative data. For the quantitative part of the data collection procedure, two different but parallel questionnaires were adapted to collect data from EFL students and teachers. The Evaluation of EIN Live Class Application by EFL Students Questionnaire was applied to 325 EFL students from different grades starting from the 4th grade to 12th grade, and the Evaluation of EIN Live Class Application by EFL Teachers Questionnaire was implemented to 81 EFL teachers. After analyzing the results of the questionnaires using a number of statistical methods including descriptive statistics to reveal mean and standard deviation scores of the Likert scale items in the questionnaire and Mann Whitney U Test to observe the variables on the self-reported perspectives of the participants, and Kruskal Wallis Test to understand whether the self-reported perspectives differ based on certain variables, two structured interviews were prepared to collect qualitative data according to the findings of the questionnaires. The interviews were conducted with 20 EFL students and

27 EFL teachers, who declared their preference and consent to participate, to collect detailed data, and content analysis was employed to evaluate the qualitative data.

## **5.2. Discussion of the Findings with reference to Research Questions**

The main objectives of this study were to reveal the perceptions of the Turkish EFL students' and teachers on the benefits and challenges of the Educational Informatics Network (EIN-EIN) Live Class Application (LCA) in online language education and to investigate whether there was a significant difference in the perceptions of the participants by means of gender, grade and type of school on students' perceptions, and gender, age, educational status, teaching experience, type of school and the availability of in-service training on how to use EIN LCA on teachers' perceptions or not. In this section, findings from the four research questions are presented along with their discussed relations with the previous studies explored in the literature review section respectively.

### **5.2.1. Research Question 1: What are the EFL students' perspectives on online language learning through the EIN Live Class Application in terms of its benefits and potential challenges?**

As revealed from the findings on the Likert questionnaire, EFL students unanimously agreed that they feel face-to-face contact with their teachers is necessary for learning to occur with the highest mean value ( $\bar{x}=4.012$ ). In addition to this, students agreed on the item referring to challenges "I lose connection during live classes because of poor internet" with the second highest mean value ( $\bar{x}=3.674$ ), and they also stated that they face problems before and during live classes with the third-highest mean value ( $\bar{x}=3.557$ ). On the other hand, participant students did not think English language classes were more enjoyable for them with EIN LCA because the item took its place at the bottom with a mean value of ( $\bar{x}= 2.511$ ). Moreover, they did not believe learning English in EIN LCA is more motivating than face-to-face education in traditional classes ( $\bar{x}=2.492$ ). Accordingly, they stated that they could not focus on their English language classes for a longer time in EIN LCA than traditional classes at school ( $\bar{x}= 2.471$ ).

According to students' perspectives on online language learning through EIN live classes in terms of its benefits, there are three items found prominent. The first item

is that “I can easily get feedback from my teachers during live classes” ( $\bar{x}=3.292$ ), secondly the participant students think that they believe EIN LCA helps them learn English ( $\bar{x}=3.117$ ), the item with the third-highest mean value showed that students feel comfortable communicating online with their teachers and classmates ( $\bar{x}=3.034$ ).

The responses given in the interview by students supported the findings of the questionnaire and provided detailed information about students’ perceptions of live classes. According to students’ responses in terms of the benefits of live classes, EIN live classes are perceived as fun, entertaining, and motivating. The main reason for these positive perceptions is e-contents including visuals, videos, songs, and online educational games used by teachers during live classes. Another benefit of online education stated by students is that live classes are time-saving because they can attend classes from home, and they do not need to travel to school for their studies. Furthermore, students thought that online homework assigned by their teachers helps them understand the topics better, and they can revise the lesson after live classes thanks to online homework. However, most of the participants’ responses (f18) confirmed and elaborated the findings of the questionnaire on the challenges students encounter in live classes. Students' responses indicated that the main problems they face are technical such as poor internet connection, power cuts in the area they reside, and occasional system failure occurring before and during live classes. Another challenge mentioned by students is about health issues such as suffering from eye pain and tiredness because of looking at the screen for long hours. Moreover, being unable to collaborate in live classes was identified as a flaw by students, and they stated three reasons for it: the limited duration of live classes, low participation of their peers in online classes, and computer-related problems.

A majority of students (f15) stated that they prefer face-to-face education in spite of its benefits because of various reasons: first, they proposed they can follow the classes better and practice their language skills at school; second, they experience environmental distractions, noise, and family issues at home; third they learn better in face-to-face education, and finally, they alleged that they could not participate in all of the live classes.

To sum up, the participant students in this study stated that they encounter many challenges in live classes along with some benefits. However, the challenges faced in online education outnumbered the benefits. Students’ perceptions are consistent with the arguments proposed by several researchers such as Duman (2020), Kalelioğlu (2016),

Mondol and Mohiuddin (2020), and Mukhtar et al. (2020). The findings are also in line with the study conducted by Mohan et al., (2021) who studied the prevalence of digital eye strain disorder among secondary school students, and they found that half of the participants suffer from at least one eye disorder because of the student exposure to computer screens in online education. However, the findings of the present study conflicts with results of the studies conducted by Bączek et al. (2021) and Pınar and Dönel Akgül (2020) because they proposed that the participants in their study perceived attending classes from home as a benefit due to the fact that they feel more comfortable in their home environment, but the participants in this study stated that participating in live classes from home causes distractions.

### **5.2.2. Research Question 2: Do gender, grade, and school type affect EFL students' perceptions of EIN LCA in terms of its benefits and challenges?**

In this study, there were 196 (60.3%) female students and 122 (37.5%) male students, 7 participants (2.2%) who preferred not to state their gender. This indicates that the number of female participants is higher. With regard to grades of students, most participants were in grade 7, grade 9, and grade 10. Accordingly, 24.0% of the participants (f: 78) were attending grade 10 in their schools, 23.1% of the participants (f: 75) were grade 9, followed by 17.2% of the participants (f: 56) who were attending grade 7, and 14.2% of the participants (f: 46) were attending grade 11 in their schools. In addition, 64.3% of the participants were high school students (f: 209); 34.2% of the participants were secondary school students (f: 111) while the rest were primary school students (f:5; 1.5%).

In addition to these certain variables, students' social status knowledge was also identified with four questions. According to students' responses, most participants (f:240; 73.8%) had an internet connection while 26.2% of the participants (f: 85) did not have an internet connection at home. In addition, 77.5 % of the participants (f: 252) indicated that they had smartphones and computers while 22.5% of the participants (f: 73) did not have smartphones and computers at home. The questionnaire also intended to determine the student participants' possession of those smartphones and computers, and it revealed that 36.9 % of the participants (f: 120) had smartphones and computers while the majority (f: 205; 62.1%) did not have personal smartphones and computers. Lastly, 55.1% of the participants indicated they had personal rooms to study, whereas

44.9 % of the participants (f: 146) did not have a personal room to study at home. In order to see whether gender influences the self-reported perspectives of the students Mann Whitney U Test was run. Additionally, Kruskal Wallis Test was employed to understand whether the self-reported perspectives differ based on the grade and the school type variables. The results of the tests do not indicate a significant difference in students' perceptions of EIN Live Class Application in terms of its benefits and challenges because it was found that students have similar beliefs about the whole online education process. These findings are in line with the study conducted by Kelly and Schonger (2002) which investigated the effects of learning preferences along with demographic differences including age, gender, cumulative general point average, teaching certification area, and ethnicity on online learning experiences and the benefits and challenges that participants encounter during the online education process in the university context. They found that learning preferences played an important role in students' perceptions, but there were no significant differences in terms of demographic differences. Another study carried out by Yu (2021) in China showed both consistency and mismatch with the findings of the present study in different aspects. The results are consistent regarding the gender variable because neither of the studies found a significant difference. However, Yu (2021) revealed an important difference between undergraduate and postgraduate students; the former preferred face-to-face education while the latter is in favor of online education when this finding is compared to the results of the present study in terms of the type of school and grade variables, the studies reveal a mismatch in their findings.

### **5.2.3. Research Question 3: What are the EFL teachers' perspectives on online language teaching through the EIN Live Class Application in terms of its benefits and potential challenges?**

Findings from the questionnaire and interview are used to address this research question. Data from the questionnaire with the Likert scale were analyzed through descriptive statistics to depict the perceptions of EFL teachers on the benefits and challenges of EIN Live Class Application in online language education. According to the questionnaire results, teachers' level of agreement was high to the statements "I feel face-to-face contact with my students is necessary for learning to occur" ( $\bar{x}=4.284$ ), "My students and I lose connection during live classes because of poor internet"

( $\bar{x}$ =4.099) and “I face some problems before and during live classes” ( $\bar{x}$ =3.901). On the other hand, teachers did not agree with the item “I believe the duration of live classes which is 30 minutes is not sufficient” because the item takes its place at the bottom with a mean value of ( $\bar{x}$ = 2.383), also, teachers did not think that having classes through EIN LCA increases the interaction with their students ( $\bar{x}$ =2.321), and finally teachers did not agree that the participation in the classes they teach on EIN LCA was higher than traditional classes at school because the item’s mean value was calculated as the lowest ( $\bar{x}$ =1.654).

In relation to the teachers’ perspectives on online language teaching through EIN live classes in terms of its benefits, the findings showed that teachers felt comfortable communicating online with their students ( $\bar{x}$ =3.395), and they stated that EIN LCA should be incorporated into the curriculum ( $\bar{x}$ =3.358) because they believe they can teach their classes online without experiencing any difficulties in giving feedback during live classes ( $\bar{x}$ =3.247). All in all, the descriptive statistics of teachers’ perceptions indicated that the dimension of the benefits owns a mean value of ( $\bar{x}$ = 4.46), whilst the dimension of the challenges takes a mean value of ( $\bar{x}$ = 4.56), this finding suggests that teachers had a higher perception on the challenges of EIN live classes.

The responses are given in the interview provided supportive evidence to the questionnaire finding of the teachers’ perceptions on the benefits and challenges of EIN LCA in terms of online language education. According to teachers’ responses in terms of the benefits of live classes, EIN live classes are perceived as good to improve students’ language skills because teachers reported that some students, who are shy and reluctant to participate in speaking or listening activities in traditional classes, feel free to make mistakes and they are more willing to participate in activities during live classes. Furthermore, teachers stated that it is easier to draw students’ attention in live classes thanks to varied online and interactive materials including visuals, audios, interactive versions of textbooks, and materials prepared by using web 2.0 tools that most teachers cannot make use of in their traditional classes because of lack of necessary multimedia equipment. Making use of these materials is proposed to offer easier classroom management by the participant teachers. Another benefit of live classes reported by teachers is that live classes enable the connection between students and teachers during the pandemic. Teachers believe that it is crucial to proceed with educational activities in terms of having live classes and assigning homework when face-to-face education is suspended. The final benefit of online education is about the

duration of live classes which is 30 minutes long. Teachers alleged that students have short attention spans; therefore, the duration is enough to have a class and that the duration of classes in face-to-face education, which is 40 minutes long, should also be regulated and decreased to 30 minutes. A participant teacher noted about the duration of live classes stating that “I think it is like the golden ratio for our classes. It is neither too short nor too long. I believe the duration of classes should always be 30 minutes long from now on”. In agreement with this, another teacher stated that “I strongly believe that the duration of classes must be a maximum of 30 minutes, I think it is pretty enough to teach”.

On the other hand, the results of the interview with teachers revealed five aspects in terms of live classes’ challenges: technical problems, low participation, lack of interaction, the distraction of students, and live class allocation problems. The main problem identified by teachers is technical-based including internet connection problems and power outages encountered during live classes. Teachers reported that their students lose internet connection and face occasional power cuts during live classes, and these problems interrupt the lesson flow. The second biggest problem reported by teachers is low participation in the live classes. Teachers unanimously agreed that at least half of their students do not attend live classes, and the class becomes boring because of low participation, and this causes the participant students to feel less motivated and become reluctant to participate in the activities done in the class. Moreover, teachers mentioned that they are indecisive about teaching the whole content to a very limited number of students because they think that they are going to have to start from the beginning if the other students participate in the classes. Another flaw mentioned by teachers is the lack of interaction in the class. Teachers reported that they are unhappy with the interaction because students turn off their microphones and do not respond to their teachers. Sometimes teachers are not even sure whether the students are following the class or not. Teachers also stated that students get distracted in their home environment because of family issues, noise around themselves, and devices including smartphones and computers they use to attend classes. The final problem encountered by teachers is the live class allocation process. Some of the teachers notified that they do not have any difficulty allocating their classes because their school administration allocates the classes for them. However, the majority of teachers attested that they are obliged to allocate their classes individually, and they believe this process is time-consuming. One of the participant teachers stated that “I would say allocating your

lessons on the platform is the most time-consuming thing for the live classes. I allocate my live classes daily and sometimes weekly, even if it is infrequent. It would be better if there was a schedule that automatically allocated your live classes”, and another teacher noted that “I have problems while saving lessons due to the internet connection or the slowness of the EIN LCA system, and this is a time-consuming process.”

In conclusion, EFL teachers in this study unanimously agreed that online education offers several benefits; however, face-to-face education is necessary to teach and learn English because they believe communication in the natural environment and classroom interaction is really significant in foreign language education. They also stated that although EIN LCA appeals to students with visual and auditory learning styles, it is not sufficient for social and kinesthetic learners. Moreover, most teachers mentioned the importance of using gestures, body language, and role-plays in foreign language education and that they can make better use of these in face-to-face education.

The findings of the study are consistent with some earlier research Nikdel Teymori and Fardin (2020) which reports teacher experiences in online education, and the study conducted in the Iran context by Mondol and Mohiuddin (2020), which reveals similar challenges such as technical problems, low participation of students and lack of motivation encountered by teachers. In addition, the participants’ perspectives on challenges and benefits are consistent with the research conducted in the university context in Pakistan which reveals that teachers have difficulty in getting feedback from their students during live classes; however, the shorter duration of classes is perceived as a benefit because of students’ short attention span (Mukhtar et al., 2020). Moreover, Cavanaugh (2005) investigated the comparison of the time spent by teachers in online and face-to-face education, and the findings of the study revealed that online education increases the time required as it was found out in this study that teachers need to spend more time to have online classes. There are also consistent studies in terms of the benefits and challenges of live classes conducted in Turkish contexts such as Kalelioğlu (2016) and Canpolat and Yıldırım (2021).

The findings seem to suggest that, as advocated by Bayburtlu (2020), online education can never be a substitute for face-to-face education; however, it is crucial to be ready for this kind of educational crisis in the future. In a similar vein, the participants in this study believed that online education should become a part of the curriculum. However, face-to-face education is necessary to teach and learn a foreign language for various reasons such as the need for communication in real environments,

the importance of classroom interaction, and to provide a more efficient learning environment to students.

#### **5.2.4. Research Question 4: Do gender, age, educational status, teaching experience, and type of school affect EFL teachers' perceptions of EIN LCA in terms of its benefits and potential challenges?**

In the present study, there were 55 female teachers and 23 male teachers. This indicates that the number of female participants is higher. With regard to the educational status of the teachers, 54 of the teachers have a bachelor's degree while 27 of them have a postgraduate degree. In order to reveal whether there was a significant difference in teachers' perceptions based on gender and educational status, Independent Sample T-test was run. According to the test results, a significant difference was not found between the perceptions of female and male teachers [ $t(76) = .0006$ . ( $p > .05$ )] along with bachelor and postgraduate teachers [ $t(79) = 1.297$ ; ( $p > .05$ )].

In addition to these certain variables, the One Way ANOVA test was run to find out whether there was a significant difference in the perceptions of teachers based on age, school type, teaching experience, and the availability of receiving any training on how to use EIN LCA variables. According to teachers' responses, the percentages of age variable were determined as the majority of the participants had a bachelors' degree (f:54; 66.7%) while the rest had a postgraduate degree (f:27; 33.3%). With regard to years of teaching experience, most participants had between 1-5 years of teaching experience at the time the present study was conducted. Accordingly, 46.9% of the participants (f: 38) had been working between 1-5 years, and 24.7% (f: 20) displayed 16-10 years of experience in teaching English. As for the age distribution of the teacher participants, it ranges from 21-25 to 41 and more. Accordingly, 32.1 % of the participants (f: 26) is at the age of 26-30; 27.2 % of the participants (f: 22) is at the age of 31-35, and 23.5 % of the participants (f: 19) is at the age of 21-25 while the rest is grouped at the age of "36-40" and "41 and more". In addition, the majority of the teacher participants seem to be working in secondary schools (f: 35; 43.2%) and high schools (f: 32. 39.5%) while 12.3 % of the participants (f: 10) are working in primary schools. As for the final question on this part of the questionnaire, it aimed to find out whether participants received any training on the use of EIN. The responses given to this item revealed that most participants (f: 45; 55.6% had not received any training on

the use of EIN, and only a few participants (f: 36; 44.4 %) responded positively to this statement. The results of the ANOVA test indicated that regardless of the variables, teachers shared similar beliefs in terms of the benefits and challenges of EIN LCA, and accordingly, a significant difference was not found.

These findings are in line with the study carried out by Mukhtar et al. (2020) to explore the perception of both teachers and students by means of online education's benefits, challenges, and recommendations in the Pakistan context; their study did not reveal a significant difference in the perceptions of teachers in terms of gender and age variables. Furthermore, the study conducted by Canpolat and Yıldırım (2021) to investigate the secondary school teachers' online education experiences in the Turkish context did not report any significant differences with regard to teachers' perceptions in terms of their gender, age, branch, teaching experience, and educational status. Another study carried out by Yu (2021) in China to find out the effects of gender and educational status in the online learning process with prospective and postgraduate teachers revealed no significant differences regarding the gender variable; however, the study also reported that teachers who had a postgraduate degree had a tendency to perceive online education as a more efficient implementation for teaching and learning environments whilst prospective teachers were in favor of face-to-face education. According to the results of the study by Yu (2021), the present study shows consistency in terms of the gender variable. However, the studies conflict by means of educational status.

All in all, both EFL teachers and students think that EIN Live Class Application offers some benefits; however, the challenges encountered before and during live classes outnumber them. Online education provides a connection between students and teachers during the Covid-19 pandemic, but especially technical-based problems interrupt the teaching and learning activities. The majority of the participants in the study stated that online education should be a part of the curriculum, but face-to-face education is necessary for teaching and learning to occur.

### **5.3. Implications**

The present study aimed to investigate EFL teachers' and students' perceptions of the benefits and challenges of EIN Live Class Application in terms of online language education in a province in Turkey. In the light of the findings, the study offers several implications for teachers, students, foreign language curriculum designers, and

education authorities with regard to the effective implementation of live classes. The implications specifically offer suggestions to eliminate the challenges of the online learning process and make better use of live class applications.

Teachers can be recommended to make use of e-contents including visuals, audios, interactive versions of textbooks, and web 2.0 tools in their live classes to draw their students' attention and help them stay focused and motivated during classes. Moreover, teachers need to support their teaching with collaborative activities including group or pair works so as to allow their students to communicate more with their classmates and increase the sense of collaboration. Another recommendation for teachers is that they are advised to assign online homework regularly to their students because students believe that homework assignments support their learning during the online education process.

Based on the findings of the present study, students are suggested to attend and actively participate in live classes. They are also advised to do their homework assignments and revise their studies regularly in order to prevent learning loss and reinforce their learning. Another recommendation for students is to attend live classes in an isolated room at home if possible; if not, they can remove the objects that might cause distractions because it is of great significance for students to pay utmost attention to follow their classes.

Another critical recommendation should be for the foreign language curriculum designers. According to the findings of the present study, the participant teachers highly suggest that EFL LCA should be incorporated in the curriculum as a part of foreign language education. Therefore, curriculum designers can conduct a comprehensive research about the perception of EFL teachers on the effective use of the live class application and regulate and support the curriculum with online education activities by considering the learning outcomes.

One of the essential factors revealed in the present study is the challenges encountered before and during live classes; hence these flaws should be eliminated by education authorities. Both teachers and students should be provided with proper internet connections and necessary devices to have live classes. Furthermore, the live class allocation process is vital to be enhanced because the majority of participant teachers in this study reported that it is time-consuming, and it would be better if the system allocated live classes automatically according to the teachers' weekly schedules prepared by school administrations.

#### **5.4. Suggestions for Further Research**

The present study mainly focused on investigating the EFL teachers' and students' perceptions of the benefits and potential challenges of EIN Live Class Application in online language education in state schools located in a province in Turkey. Future research could be carried out in different cities or nationwide to find out the differences and similarities on this topic. Furthermore, this study was conducted with EFL teachers and students, and similar studies could be carried out with students and teachers in other subject areas such as history, physics, literature, and mathematics.

In this study, questionnaires and interviews are utilized as data collection tools; therefore, observation sessions in EFL live classes could also be arranged to have an opportunity to reveal the level of interaction between students and teachers. In addition, longitudinal studies can be carried out to find out the effects of live classes on the learning outcomes of students.

Finally, the study was carried out during the Covid-19 pandemic when face-to-face education was suspended. Moreover, the online education process was the first experience of many students and teachers. Hence, after the pandemic is over, future research focusing on the benefits and challenges of the EIN Live Class Application can generate significant findings.

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6. Have you received any training about how to use EIN LCA?

( ) Yes ( ) No

7. Please, remark your level of agreement with each of the following statements on the Educational Informatics Network (EIN) Live Class Application (LCA).

	LEVEL OF AGREEMENT				
	1 <u>Strongly</u> <u>Disagree</u>	2 <u>Disagree</u>	3 <u>Neither</u> <u>Agree nor</u> <u>Disagree</u>	4 <u>Agree</u>	5 <u>Strongly</u> <u>Agree</u>
1) I think Educational Informatics Network (EIN) Live Class Application (LCA) can contribute to teaching problems.					
2) I believe EIN LCA makes a great contribution to the improvement and quality of education.					
3) I feel comfortable communicating online with my students.					
4) I think EIN LCA reduces my workload.					
5) I believe teaching in EIN LCA has a positive effect on teacher motivation.					
6) I think EIN LCA appeals to students with different learning styles (verbal, auditory, visual, numerical, social, individual, etc.).					
7) I think that EIN LCA should be incorporated into the curriculum.					
8) Lessons are more enjoyable with EIN LCA.					
9) Having classes through EIN LCA increases the interaction with my students.					
10) In EIN LCA, I can gather my students' attention for a longer time than traditional classes at school.					
11) Participation in the classes I teach on EIN LCA is higher than traditional classes at school.					
12) EIN LCA makes teaching English easier.					
13) I can easily give feedback to my students during live classes.					

14) Preparing weekly or daily schedules in EIN LCA is time-consuming.					
15) I face some problems before and during live classes.					
16) I have difficulty allocating my classes according to my weekly schedule in EIN LCA.					
17) My students and I lose connection during live classes because of poor internet.					
18) I find it difficult to manage the class during live classes.					
19) Preparing materials for live classes is challenging.					
20) I believe the duration of live classes which is 30 minutes is not sufficient.					
21) I believe that my students can improve their language skills the same in EIN LCA and in traditional classes at school.					
22) I feel face-to-face contact with my students is necessary for learning to occur.					

**The questionnaire is over. Thank you for your time and consideration. We would like to conduct a written interview to obtain more detailed information about EIN LCA from you. Participation in the interview is voluntary. Please state your preference below.**

I would like to give more details about EIN LCA in a written interview.

( ) Yes ( ) No

If “yes”, Please write your e-mail address: \_\_\_\_\_

## Appendix 2. Students Questionnaire

### EFL Students' Perceptions of Educational Informatics Network (EIN) Live Class Application (LCA)

Dear Students,

This thesis questionnaire is conducted by the English language teacher Remzi BALCI who works for the Turkish Ministry of National Education in the Kumlu county of Hatay/Turkey in the context of Çukurova University ELT Graduate Program. The aim of this questionnaire is to examine the students' perceptions of the challenges and benefits of the Educational Informatics Network (EIN) Live Class Application in terms of their grade, gender, and socio-economic background. Participation is based on a voluntary contribution. Your responses to the questionnaire will be confidential and will not be shared with anyone or any institutions except for the researchers. It is of great importance that you respond to all the questionnaire items and make sure that your answers are correct to ensure that the findings of the study are consistent and valid. I thank you with all my sincerity for your time and consideration. By participating in this questionnaire, you declare that you consent to take part in this study.

With kind regards.

**1. Gender:**

Male                       Female                       Prefer not to say

**2. Type of School:**

Primary School                       Secondary School                       High School

**3. Grade:**

2<sup>nd</sup> grade                       3<sup>rd</sup> grade                       4<sup>th</sup> grade                       5<sup>th</sup> grade

6<sup>th</sup> grade                       7<sup>th</sup> grade                       8<sup>th</sup> grade                       9<sup>th</sup> grade

10<sup>th</sup> grade                       11<sup>th</sup> grade                       12<sup>th</sup> grade

**4. Do you have internet connection at home?**

Yes  No

**5. Do you have a smart device or computer at home?**

Yes  No

**6. Do you have a personal smart device or computer?**

Yes  No

7. Do you have a separate room at home to study?

( ) Yes ( ) No

8. Please, remark your level of agreement with each of the following statements on the Educational Informatics Network (EIN) Live Class Application (LCA).

	LEVEL OF AGREEMENT				
	1 <u>Strongly</u> <u>Disagree</u>	2 <u>Disagree</u>	3 <u>Neither</u> <u>Agree nor</u> <u>Disagree</u>	4 <u>Agree</u>	5 <u>Strongly</u> <u>Agree</u>
1) I think Educational Informatics Network (EIN) Live Class Application (LCA) makes learning difficult.					
2) I believe EIN LCA helps me learn English.					
3) I feel comfortable communicating online with my teachers and classmates.					
4) I think EIN LCA reduces the amount of time I spend on my studies.					
5) I believe learning English in EIN LCA is more motivating than face-to-face education in traditional classrooms.					
6) I think learning English in EIN LCA appeals to my learning style.					
7) I think that EIN LCA should be incorporated into the curriculum.					
8) English language classes are more enjoyable for me with EIN LCA.					
9) I can collaborate with other students while learning English during live classes.					
10) In EIN LCA, I can focus on my English language classes for a longer time than traditional classes at school.					
11) I feel more willing to participate in the classes on EIN LCA than traditional classes at school.					
12) EIN LCA makes learning English easier for me.					
13) I can easily get feedback from my teachers during live classes.					
14) Doing my homework assigned online in EIN LCA is time-consuming.					

15) I face some problems before and during live classes.					
16) I have difficulty following my weekly schedule in EIN LCA.					
17) I lose connection during live classes because of poor internet.					
18) I find it difficult to follow the class during live classes.					
19) Getting prepared for live classes is more challenging than traditional classes at school.					
20) I believe the duration of live classes which is 30 minutes is not sufficient.					
21) I believe that I can improve my English language skills the same in EIN LCA and in traditional classrooms at school.					
22) I feel face-to-face contact with my teachers is necessary for learning to occur.					

**The questionnaire is over. Thank you for your time and consideration. We would like to conduct a written interview to obtain more detailed information about EIN LCA from you. Participation in the interview is voluntary. Please state your preference below.**

I would like to give more details about EIN LCA in a written interview.

( ) Yes ( ) No

If “yes”, Please write your e-mail address: \_\_\_\_\_

### Appendix 3. Turkish Version of the Students Questionnaire

Sevgili Öğrenciler,

Bu tez anketi, Çukurova Üniversitesi İngilizce Öğretmenliği Yüksek Lisans Programı kapsamında Hatay'ın Kumlu ilçesinde Milli Eğitim Bakanlığı'nda görev yapan İngilizce öğretmeni Remzi BALCI tarafından yapılmıştır. Bu anketin amacı, öğrencilerin Eğitim Bilişim Ağı (EBA) Canlı Sınıf Uygulamasının zorlukları ve faydaları hakkındaki algılarını sınıfları, cinsiyetleri ve sosyal durumları açısından incelemektir. Katılım, gönüllülük esasına dayanmaktadır. Ankete vereceğiniz cevaplar gizli tutulacak ve araştırmacılar dışında hiç kimse veya kurumla paylaşılmayacaktır. Çalışmanın bulgularının tutarlı ve geçerli olmasını sağlamak için tüm anket maddelerini yanıtlamanız ve yanıtlarınızın doğru olduğundan emin olmanız büyük önem taşımaktadır. Zaman ayırdığınız ve ilginiz için tüm samimiyetimle teşekkür ederim. Bu ankete katılarak, bu araştırmaya katılmayı kabul ettiğinizi beyan ediyorsunuz.

**1. Cinsiyetiniz:**

( ) Erkek ( ) Kadın ( ) Belirtmemeyi tercih ediyorum

**2. Okul Türünüz:**

( ) İlkokul ( ) Ortaokul ( ) Lise

**3. Sınıf Düzeyiniz:**

( ) 2. sınıf ( ) 3. sınıf ( ) 4. sınıf ( ) 5. sınıf  
 ( ) 6. sınıf ( ) 7. sınıf ( ) 8. sınıf ( ) 9. sınıf  
 ( ) 10. sınıf ( ) 11. sınıf ( ) 12. sınıf

**4. Evinizde internet bağlantınız var mı?**

( ) Evet ( ) Hayır

**5. Evinizde bir akıllı cihaz veya bilgisayar var mı?**

( ) Evet ( ) Hayır

**6. Kendinize ait bir akıllı cihazınız veya bilgisayarınız var mı?**

( ) Evet ( ) Hayır

**7. Evinizde ders çalışabileceğiniz ayrı bir odanız var mı?**

( ) Evet ( ) Hayır

**8. Aşağıdaki Eğitim Bilişim Ağı (EBA) Canlı Ders Uygulaması (CDU) hakkındaki ifadelere katılma düzeyinizi belirtiniz.**

	KATILMA DÜZEYİ				
	1 <u>Kesinlikle</u> <u>Katılmıv</u> <u>rum</u>	2 <u>Katılmıv</u> <u>rum</u>	3 <u>Kararsız</u> <u>m</u>	4 <u>Katılvor</u> <u>um</u>	5 <u>Kesinlikle</u> <u>Katılvoru</u> <u>m</u>
1) Eğitim Bilişim Ağı (EBA) Canlı Ders Uygulaması (CDU)'nın İngilizce öğrenmeyi zorlaştırdığını düşünüyorum.					
2) EBA CDU'nun İngilizce öğrenmeye yardımcı olduğuna inanıyorum.					
3) Öğretmenlerimle ve sınıf arkadaşlarımla online olarak rahatça iletişim kurabiliyorum.					
4) EBA CDU'nun derslerime ayırdığım zamanı azalttığını düşünüyorum.					
5) EBA CDU'yla İngilizce öğrenmenin geleneksel sınıflardaki yüz yüze eğitimden daha motive edici olduğuna inanıyorum.					
6) EBA CDU'yla İngilizce öğrenmenin benim öğrenme tarzıma hitap ettiğini düşünüyorum.					
7) EBA CDU'nun müfredata eklenmesi gerektiğini düşünüyorum.					
8) İngilizce dersleri EBA CDU'yla benim için daha eğlenceli.					
9) İngilizce öğrenirken canlı dersler esnasında diğer öğrencilerle iş birliği içinde çalışabiliyorum.					
10) EBA CDU'da İngilizce derslerime okuldaki geleneksel derslerden daha uzun süre odaklanabiliyorum.					
11) EBA CDU'daki İngilizce derslerime okuldaki geleneksel derslere göre daha fazla katılmak istiyorum.					
12) EBA CDU İngilizce öğrenmeyi benim için daha kolay hale getiriyor.					
13) Canlı dersler esnasında öğretmenlerimden kolayca dönüt alabiliyorum.					
14) EBA CDU'dan online olarak verilen ödevlerimi yapmak çok zaman alıcı.					

15) Canlı derslerden önce ve canlı dersler esnasında bazı sorunlarla karşılaşıyorum.					
16) EBA CDU'daki haftalık ders programımı takip etmekte zorluk çekiyorum.					
17) Zayıf internet bağlantısından dolayı canlı dersler esnasında bağlantımı kaybedip dersten kopuyorum.					
18) Canlı dersler esnasında dersi anlamakta zorlanıyorum.					
19) Canlı derslere hazırlanmak okuldaki derslere hazırlanmaktan daha zor/uğraştırıcı.					
20) 30 dakika olan canlı ders süresinin yeterli olmadığına inanıyorum.					
21) İngilizce dil becerilerimi EBA CDU'da okulda aldığım derslerimle aynı oranda geliştirebileceğime inanıyorum.					
22) Öğrenmenin meydana gelmesi için öğretmenlerimle yüz yüze temasın olması gerektiğini düşünüyorum.					

**Anket sona ermiştir. Vaktiniz ve ilginiz için teşekkür ederiz. EBA CDU hakkında daha detaylı bilgi elde edebilmek için sizinle yazılı bir görüşme yapmak istiyoruz. Bu görüşmeye katılım gönüllülük esasına bağlıdır, lütfen katılım tercihinizi aşağıda belirtiniz.**

EBA CDU hakkında daha detaylı bilgi vermek için yazılı görüşmeye katılmak istiyorum.

( ) Evet ( ) Hayır

**Cevabınız “Evet” ise, e-posta adresiniz: \_\_\_\_\_**

#### **Appendix 4. Teacher Interview Form.**

#### **EFL Teachers' Perceptions of Educational Informatics Network (EIN) Live Class Application (LCA)**

Dear Colleague,

I would like to start by expressing my appreciation for your precious time for participating in my study. In addition to the questionnaire in which you stated that you are volunteer to take part, this written interview is conducted as the second step of data collection about Educational Informatics Network (EIN) Live Class Application (LCA) within the context of the Çukurova University English Language Teaching (ELT) Master Program. The interview consists of 9 questions and takes about 10-20 minutes. The purpose of the interview questions is to obtain more detailed information about the benefits and challenges of EIN LCA. I kindly demand you to provide detailed explanations/responses to each question. I assure you that your answers will be kept confidential. By participating in this interview, you declare that you consent to take part in this study.

I thank you with my deepest sincerity for contributing to this academic study.

#### **A. Personal Information**

1) Gender:

Male                       Female                       Prefer not to say

2) Age:

21-25                       26-30     31-35                       36-40                       41 and more

3) Educational Status:

Bachelor's Degree                       Postgraduate

4) Teaching Experience:

1-5 year(s)                       6-10 years                       11-15 years                       16-20 years                       20 years and more

5) Type of School:

Primary School                       Secondary School                       High School

6) Have you received any training about how to use EIN LCA?

Yes  No

**B. Interview Questions**

- 1) What do you think are the benefits of EIN LCA in terms of teaching the English language?
- 2) What do you think about the participation of your students in the classes you teach through EIN LCA? Do you think all or most of your students participate in classes? If not, what do you think are the reasons for it?
- 3) Do you think you can gather your students' attention for a longer time in EIN LCA than face-to-face education? What could be the reasons for your response?
- 4) Are you happy with the interaction with your students during live classes? Do you believe it is sufficient for teaching a foreign language?
- 5) What do you think about the duration of live classes which is 30 minutes? Do you think it is enough to cover your lesson? Why? / Why not?
- 6) Do you face any problems while teaching English through EIN LCA? If so, can you state the problems you encounter during live classes and how they affect the lesson flow?
- 7) How do you prepare your weekly or daily schedule for EIN LCA? Do you have any difficulties while allocating your classes? Is the process easy to manage, or do you think it is time-consuming? Why?
- 8) How do you think EIN LCA affects your students' learning? Do you think it appeals to students with different learning styles (verbal, auditory, visual, numerical, social, individual, etc.) Please explain your responses with examples from your live classes.
- 9) Do you think face-to-face education is necessary to teach English? Why? / Why not?
- 10) Do you or your students lose connection during live classes? If so, what are the reasons for losing connection? How does it affect the class and your teaching?

## Appendix 5. Turkish Version of the Teacher Interview Form

Değerli Meslektaşım,

Çalışmama katıldığınız ve kıymetli vaktinizi ayırdığınız için size olan minnettarlığı ifade etmekle başlamak istiyorum. Katılmaya gönüllü olduğunuzu belirttiğiniz ankete ek olarak, bu yazılı görüşme Çukurova Üniversitesi İngiliz Dili Eğitimi (ELT) Yüksek Lisans Programı kapsamında Eğitim Bilişim Ağı (EBA) Canlı Ders Uygulaması (CDU) ile ilgili veri toplamanın ikinci aşaması olarak gerçekleştirilmektedir. Bu görüşme 9 sorudan oluşmakta olup, tamamlanması yaklaşık olarak 10-20 dakika sürmektedir. Görüşme sorularının amacı, EBA CDU'nun yararları ve zorlukları hakkında daha ayrıntılı bilgi elde etmektir. Her soruya ayrıntılı açıklama / yanıt vermenizi rica ediyorum. Cevaplarınız gizli tutulacak olup araştırmacılar dışında kimse ile paylaşılmayacaktır. Bu görüşmeye katılarak, bu araştırmaya katılmayı kabul ettiğinizi beyan ediyorsunuz.

Bu akademik çalışmaya katkıda bulunduğunuz için en derin samimiyetimle teşekkür ederim.

### A. Kişisel Bilgiler

1) Cinsiyetiniz:

Erkek       Kadın       Belirtmemeyi tercih ediyorum

2) Yaşınız:

21-25       26-30       31-35       36-40       41 ve daha fazlası

3) Eğitim Durumunuz:

Lisans       Lisansüstü

4) Öğretmenlik Deneyiminiz:

1-5 yıl       6-10 yıl       11-15 yıl       16-20 yıl       20 yıl  
ve daha fazlası

5) Okul Türünüz:

İlkokul       Ortaokul       Lise

6) EBA Canlı Ders Uygulamasının nasıl kullanılacağı üzerine herhangi bir eğitim aldınız mı?

Evet       Hayır

## B. Görüşme Soruları

- 1) EBA Canlı Ders Uygulamasının (CDU) İngilizce öğretimi açısından faydalarının neler olduğunu düşünüyorsunuz?
- 2) EBA CDU ile öğrettiğiniz derslere öğrencilerinizin katılımı hakkında ne düşünüyorsunuz? Öğrencilerinizin tamamının veya çoğunun derslere katıldığını düşünüyor musunuz? Katılmıyorlarsa bunun nedenleri sizce nelerdir?
- 3) Öğrencilerinizin ilgisini EBA Canlı Ders Uygulaması'nda yüz yüze eğitime göre daha uzun süre toplayabildiğinizi düşünüyor musunuz? Cevabınızın nedenleri sizce neler olabilir?
- 4) Canlı dersler esnasındaki öğrencilerinizle olan etkileşimden memnun musunuz? Bu etkileşimin bir yabancı dil öğretmek için yeterli olduğunu düşünüyor musunuz?
- 5) 30 dakika olan canlı derslerin süresi hakkında ne düşünüyorsunuz? Dersinizi işlemek için bu sürenin yeterli olduğunu düşünüyor musunuz? Lütfen cevabınızın nedenlerini açıklayınız.
- 6) EBA Canlı Ders Uygulaması aracılığıyla İngilizce öğretirken herhangi bir sorunla karşılaşılıyor musunuz? Eğer karşılaşıyorsanız, canlı derslerde karşılaştığınız sorunları ve bunların ders akışını nasıl etkilediğini açıklayabilir misiniz?
- 7) EBA Canlı Ders Uygulaması için haftalık veya günlük ders programınızı nasıl hazırlıyorsunuz? Derslerinizi atarken herhangi bir zorluk çekiyor musunuz? Sizce bu uygulanması kolay mı yoksa zaman alıcı bir işlem mi? Cevaplarınızı nedenleriyle açıklayınız.
- 8) EBA Canlı Ders Uygulaması'nın öğrencilerinizin öğrenmesini nasıl etkilediğini düşünüyorsunuz? Farklı öğrenme stillerine sahip öğrencilere (sözlü, işitsel, görsel, sayısal, sosyal, bireysel vb.) hitap ettiğini düşünüyor musunuz? Lütfen yanıtlarınızı canlı derslerinizden örneklerle açıklayınız.
- 9) İngilizce öğretmek için yüz yüze eğitimin gerekli olduğunu düşünüyor musunuz? Neden? / Neden değil?
- 10) Siz veya öğrencileriniz, canlı dersler esnasında bağlantınızı kaybediyor musunuz? Eğer kaybediyorsanız, bunun nedenleri nelerdir? Bu durum dersinizi ve öğretiminizi nasıl etkiliyor?

## Appendix 6. Student Interview Form

### EFL Students' Perceptions of Educational Informatics Network (EIN) Live Class Application (LCA)

Dear Students,

I would like to start by expressing my appreciation for your time for participating in my study. In addition to the questionnaire in which you stated that you are volunteer to take part, this written interview is conducted as the second step of data collection about Educational Informatics Network (EIN) Live Class Application (LCA) within the context of the Çukurova University English Language Teaching (ELT) Master Program. The interview consists of 9 questions and takes about 10-20 minutes. The purpose of the interview questions is to obtain more detailed information about the benefits and challenges of EIN LCA. I kindly demand you to provide detailed explanations/responses to each question. I assure you that your answers will be kept confidential. By participating in this interview, you declare that you consent to take part in this study.

I thank you with my deepest sincerity for contributing to this academic study.

#### A. Personal Information

1. Gender:

Male                       Female                       Prefer not to say

2. Type of School:

Primary School                       Secondary School                       High School

3. Grade:

2<sup>nd</sup> grade                       3<sup>rd</sup> grade                       4<sup>th</sup> grade                       5<sup>th</sup> grade  
 6<sup>th</sup> grade                       7<sup>th</sup> grade                       8<sup>th</sup> grade                       9<sup>th</sup> grade  
 10<sup>th</sup> grade                       11<sup>th</sup> grade                       12<sup>th</sup> grade

4. Do you have internet connection at home?

Yes  No

5. Do you have a smart device or computer at home?

Yes  No

6. Do you have a personal smart device or computer?

Yes  No

7. Do you have a separate room at home to study?

( ) Yes ( ) No

### **B. Interview Questions**

- 1) What do you think are the benefits of EIN LCA in terms of learning the English language?
- 2) Which one do you think is more enjoyable for your English classes: EIN LCA or face-to-face education at school? Why?
- 3) Do you feel more motivated when you learn English through EIN LCA? Can you describe how it affects your learning and the atmosphere of the class?
- 4) Can you focus on your English classes in EIN LCA for a longer time than face-to-face education? Can you explain the reason for your response?
- 5) Can you collaborate with your classmates while learning English during live classes? If so, please explain how; if not, why do you think you cannot collaborate?
- 6) How much time do you normally spend on your studies? Do you think EIN LCA reduces the amount of time you spend? Why? / Why not?
- 7) Do you face any problems while learning English through EIN LCA? If so, can you state the problems you encounter during live classes?
- 8) Do you have difficulty attending your classes? Do you or your teacher lose connection during live classes? If so, what are the reasons for losing connection? How does it affect the class and your learning?
- 9) What do you think about the homework assignments? Do your teachers assign you online homework? If so, can you explain what kind of homework assignments you are responsible for? Do you think they are beneficial or time-consuming? Why?
- 10) Do you think face-to-face education is necessary to learn English? Why? / Why not?
- 11) Do you have any difficulty in following the lesson during live classes? If so, please explain how and why you think that you have difficulty.

## Appendix 7. Turkish Version of the Student Interview Form

Sevgili Öğrenciler,

Çalışmama katıldığınız ve vaktinizi ayırdığınız için size olan minnettarlığı ifade etmekle başlamak istiyorum. Katılmaya gönüllü olduğunuzu belirttiğiniz ankete ek olarak, bu yazılı görüşme Çukurova Üniversitesi İngiliz Dili Eğitimi (ELT) Yüksek Lisans Programı kapsamında Eğitim Bilişim Ağı (EBA) Canlı Ders Uygulaması (CDU) ile ilgili veri toplamanın ikinci aşaması olarak gerçekleştirilmektedir. Bu görüşme 9 sorudan oluşmakta olup, tamamlanması yaklaşık olarak 10-20 dakika sürmektedir. Görüşme sorularının amacı, EBA CDU'nun yararları ve zorlukları hakkında daha ayrıntılı bilgi elde etmektir. Her soruya ayrıntılı açıklama / yanıt vermenizi rica ediyorum. Cevaplarınız gizli tutulacak olup araştırmacılar dışında kimse ile paylaşılmayacaktır. Bu görüşmeye katılarak, bu araştırmaya katılmayı kabul ettiğinizi beyan ediyorsunuz.

Bu akademik çalışmaya katkıda bulunduğunuz için en derin samimiyetimle teşekkür ederim.

### C. Kişisel Bilgiler

1) Cinsiyetiniz:

Erkek  Kadın  Belirtmemeyi tercih ediyorum

2) Okul Türünüz:

İlkokul  Ortaokul  Lise

3) Sınıf Düzeyiniz:

2. sınıf  3. sınıf  4. sınıf  5. sınıf

6. sınıf  7. sınıf  8. sınıf  9. sınıf

10. sınıf  11. sınıf  12. sınıf

4) Evinizde internet bağlantınız var mı?

Evet  Hayır

5) Evinizde bir akıllı cihaz veya bilgisayar var mı?

Evet  Hayır

6) Kendinize ait bir akıllı cihazınız veya bilgisayarınız var mı?

Evet  Hayır

- 7) Evinizde ders çalışabileceğiniz ayrı bir odanız var mı?  
 ( ) Evet ( ) Hayır

#### **D. Görüşme Soruları**

- 1) EBA Canlı Ders Uygulamasının (CDU) İngilizce öğrenimi açısından faydalarının neler olduğunu düşünüyorsunuz?
- 2) İngilizce dersleriniz için hangisinin daha eğlenceli/keyifli olduğunu düşünüyorsunuz: EBA Canlı Ders Uygulaması mı yoksa okulda yüz yüze eğitim mi? Neden?
- 3) EBA Canlı Ders Uygulaması aracılığıyla İngilizce öğrenirken kendinizi daha motive olmuş hissediyor musunuz? EBA Canlı Ders Uygulamasının öğrenmenizi ve sınıfın atmosferini nasıl etkilediğini açıklayabilir misiniz?
- 4) EBA Canlı Ders Uygulaması'ndaki İngilizce derslerinize yüz yüze eğitimden daha uzun süre odaklanabiliyor musunuz? Cevabınızın nedenini açıklayabilir misiniz?
- 5) Canlı dersler esnasında İngilizce öğrenirken sınıf arkadaşlarınızla işbirliği yapabiliyor musunuz? Eğer yapabiliyorsanız, lütfen nasıl olduğunu açıklayın; yapamıyorsanız neden işbirliği yapamadığınızı düşünüyorsunuz?
- 6) Normalde dersleriniz için ne kadar zaman harcıyorsunuz? EBA Canlı Ders Uygulaması 'nın harcadığınız zamanı azalttığını düşünüyor musunuz? Neden?
- 7) EBA Canlı Ders Uygulaması aracılığıyla İngilizce öğrenirken herhangi bir sorunla karşılaşılıyor musunuz? Eğer karşılaşıyorsanız, canlı derslerde karşılaştığınız sorunları ve bunların ders akışını nasıl etkilediğini açıklayabilir misiniz?
- 8) Canlı derslere katılmada zorluk yaşıyor musunuz? Siz veya öğretmeniniz, canlı dersler esnasında bağlantınızı kaybediyor musunuz? Eğer kaybediyorsanız, bunun nedenleri nelerdir? Bu durum dersinizi ve öğrenmenizi nasıl etkiliyor?
- 9) Ödevler hakkında ne düşünüyorsunuz? Öğretmenleriniz size canlı derslerde ödev veriyor mu? Eğer veriyorlarsa, nasıl ödevler veriyorlar? Bu ödevlerin faydalı olduğunu mu düşünüyorsunuz yoksa zaman alıcı olduğunu mu? Neden?
- 10) İngilizce öğrenmek için yüz yüze eğitimin gerekli olduğunu düşünüyor musunuz? Neden?
- 11) Canlı dersler esnasında dersi takip etmekte zorluk çekiyor musunuz? Eğer öyleyse, lütfen nasıl ve neden zorluk çektiğinizi düşündüğünüzü açıklayınız.

## Appendix 8. Permission from the Directorate of National Education



T.C.  
Kumlu Kaymakamlığı  
İlçe Milli Eğitim Müdürlüğü

Sayı : E-68643109-605.01-25608028  
Konu : Remzi BALCI  
T.C No: [REDACTED]

27/05/2021

### KAYMAKAMLIK MAKAMINA

İlgi : Abdurrahman Gülizar Karadeniz Çok Programlı Anadolu Lisesi Müdürlüğü'nün 21.05.2021 tarih ve 25386491 sayılı yazısı.

Okulumuz İngilizce öğretmeni aynı zamanda Çukurova Üniversitesi, Sosyal Bilimler Enstitüsü, İngiliz Dili Anabilim Dalı'nda Yüksek Lisans öğrencisi Remzi BALCI eğitimi kapsamında yürüttüğü "Çevrimiçi Dil Öğrenimi / Öğretimi Açısından Yabancı Dil Olarak İngilizce Öğrencileri ve Öğretmenlerinin Eğitim Bilişim Ağı (EBA) Canlı Ders Uygulamasının Yararları ve Olası Zorlukları Konusundaki Algıları" başlıklı tez çalışması için Müdürlüğümüze bağlı okullarda görev yapan İngilizce öğretmenleriyle ve aynı okullardaki İngilizce dersi alan öğrencilerle "EBA Canlı Ders Uygulamasının Değerlendirilmesi" başlıklı anket çalışması yapmak istemektedir. Müdürlüğümüzce uygun görülmektedir.

Makamlarınızca uygun görülmesi halinde Olurlarınıza arz ederim.

Mustafa TUNÇER  
İlçe Milli Eğitim Müdürü

OLUR

<...>

Ali CANDAN  
Reyhanlı Kaymakamı  
Kumlu Kaymakam V.

Adres :

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Internet Adresi : [KumluIlceMilliEgitimMudurlugu](http://KumluIlceMilliEgitimMudurlugu)

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