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Reflections on Online Instructional Technologies and Materials Used During the COVID-19 Pandemic

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ABSTRACT

In the process of the COVID-19 pandemic, the traditional face-to-face education system was transitioned to a distance education system. Undoubtedly, this significant change in the education field has affected teachers and students the most. Therefore, shedding light on the experiences of teachers and students in online classes is believed to contribute to the success of future distance education practices. For this purpose, in this study, the experiences and views of English teachers and high school students regarding the instructional technologies used in online teaching were investigated. The phenomenological design, which is one of the qualitative research designs, was used in the study. Twenty English teachers and thirty high school students participated in the study from the schools within the research permission. A semi-structured interview form developed by the researcher was used in the study. The findings obtained from the interviews were analyzed using content analysis method. It was found that in the early stages of distance education, teachers and students faced difficulties in adapting to technology usage. Teachers who were interested in technology usage experienced fewer challenges in using instructional technologies and materials. Students who had internet and device access and were motivated to attend classes benefited more from online class opportunities. Students mentioned that using lesson materials that appealed to their interests would be a driving force for their participation in online classes, while teachers stated that they had to use various instructional technologies to actively engage their students in classes and, therefore, they improved their technology proficiency.

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INTRODUCTION

Before the COVID-19 outbreak, the use of technology in education was limited to teachers' preferences for incorporating technology into their teaching activities. However, after the outbreak of the pandemic, conducting teaching and learning activities have become challenging when learners and educators cannot interact in person. On the other hand, thanks to technological advancements, teaching is no longer confined by distance or time limitations and can occur anywhere and anytime (Chisango et al., 2020; Kalimullina et al., 2021; Konyana & Motalenyane, 2022). Consequently, the incorporation of technology in education has become a necessity for the sustainability of teaching and learning activities. Using technology in education is seen as a tool that can improve teaching, learning, and assessment in creative ways, as stated by Lotherington et al. (2021). This means that incorporating technology has the potential to enhance how teachers teach and how students learn (Maja, 2023). Moreover, it is stated that online learning and classes are progressively becoming integral parts of the worldwide educational system (Kanojiya, 2020). On the other hand, the COVID-19 pandemic has brought a different perspective toward online education globally due to the large-scale use of online platforms by learners and educators (Hoofman & Secord, 2021). The transition to online learning has brought forth several advantages, including flexibility, convenience, accessibility, and a personalized learning experience. However, there are also associated challenges- it has posed numerous difficulties for universities worldwide and encountered various barriers such as infrastructure deficits, extracurricular activities, technical issues, and ensuring sufficient resources for effective and efficient knowledge dissemination (Aguilera-Hermida, 2020). Futhermore, it's certainly not easy for students to embrace and put into practice the transition from traditional learning approaches to online methods, which require them to adapt (Ahdiyah, 2023).

Throughout the period of distance education, both teachers who are familiar with technology and those who are less experienced found themselves deeply engaged in technological endeavors. Foreign language teaching, in particular, requires practical lesson activities aimed at developing four key language skills. At this point, the use of technology comes to the rescue of the teachers. The use of technology has significantly mitigated the lack of interaction opportunities that were originally present in face-to-face education environments during distance education. By incorporating technology into teaching activities and presenting diverse information sources and visually engaging activities, the quality of educational experiences can be greatly enhanced (Gülcü et al., 2013).

Teaching materials refer to all the content presented through various tools to achieve lesson objectives (Yanpar & Yıldırım, 1999). In another definition, teaching materials are the application of existing knowledge to achieve certain purposes (Özdemir & Özdemir, 2019). Teaching materials can be divided into classic and modern categories. Traditional teaching materials include items such as whiteboard, textbooks, classroom board, pictures, graphics, posters, etc., while modern teaching materials include projection devices, computers, digital teaching materials, and similar tools (Sever & Koçoğlu, 2017). With the pandemic, distance education has taken the lead in teaching processes, and the use of modern teaching materials has become inevitable in instructional practices. In this context, the diversity and effectiveness of digital teaching materials are essential to engage students in the learning process, which means establishing teacher-student and student-student interactions in online education classes.

Teaching a skill-based lesson in online education can be quite challenging. Engaging students actively during the lesson, managing the lesson duration, and motivating all students to achieve educational objectives are not easy tasks for teachers. However, with the inclusion of appropriate tools, applications and techniques, online classes can become truly enjoyable for both teachers and students.

The problem of research

1. What are views and experiences of the teachers and students regarding online classes?
2. What are pros and cons of online instructional technologies from the teachers' viewpoint?
3. What instructional technologies were used during online classes?

METHOD

Research Design

This research was designed in accordance with the phenomenological design which is one of the qualitative research methods, aiming to gather the views of English teachers and students regarding the instructional technologies and materials used during the distance education process. When there is a need to explore a problem or issue and understand how participants approach a problem or issue in a specific context or setting, qualitative research is conducted (Creswell, 2020). The phenomenology (phenomenological) design was preferred to conduct an in-depth investigation by making inferences from the views expressed by English teachers conducting online classes and students attending online English lessons during the distance education process, regarding the relevant technologies. The phenomenology design is a research approach derived from philosophy and psychology. In this kind of research, the researcher attempts to analyze the shared experiences of individuals about a phenomenon. In this study, which is based on the experiences of a small number of individuals, the researcher reaches the essence he/she wants to achieve in the research through the data obtained (Giorgi, cited in Creswell, 2014, p. 42).

Research Sample/Study Group/Participants

This research was conducted during the months of February-March of the 2021-2022 academic year and involved English teachers working in high schools in Bolu province and their students. Participant selection was conducted on a voluntary basis. Table 1 illustrates the composition of the study group.

Table 1. *Study Group*

Gender	Teachers	Students
Female	17	22
Male	3	8
Total	20	30

Data Collection And Analysis Process

The data collection and analysis process followed a qualitative research design. Qualitative data were gathered from a total of 20 teachers (17 female, 3 male) and 30 students (22 female, 8 male). Prior to conducting interviews with student participants, parental consent forms were obtained. The data collection process commenced upon receiving the necessary consents. Due to the pandemic conditions, semi-structured interviews were conducted through phone calls and Zoom connections, with each interview lasting approximately 10-15 minutes.

For the analysis of the semi-structured interviews, content analysis, a commonly used technique in qualitative research, was employed. Content analysis is a method within qualitative research that involves analyzing documents, records, and similar materials using specific rules, such as coding, category creation, and theme determination (Metin & Ünal, 2022). During content analysis, the audio files obtained from the recorded interviews were transcribed. The coding process was manually carried out by the researcher, wherein findings were expressed with words or symbols based on their purpose (Yıldırım & Şimşek, 2018). The text files were read multiple times, and similar views were grouped and labeled accordingly. The creation of codes, categories, and themes was guided by the research questions and theoretical framework. According to Karasar (2007), it is crucial to establish

codes based on research questions and the theoretical framework. After the codes were established, categories and themes were created. Expert views were sought for the emerging codes, categories, and themes. The frequencies and percentages of the codes were calculated. The data, systematically brought together and organized, were described and interpreted in line with the research aims (Huberman & Miles, 1994).

The coding, frequency, and percentage calculations, as well as content analysis, were used to explore English teachers' perceptions of self-efficacy in the context of technology during the pandemic period of distance education, their usage of instructional technologies and digital materials in classes, and the advantages and disadvantages of these technologies and online teaching in general. Additionally, their views and suggestions regarding the process were examined. Similarly, coding, frequency, and percentage calculations, along with content analysis, were used to explore students' perceptions and suggestions regarding the instructional technologies and digital materials they encountered in classes, as well as the advantages and disadvantages of these technologies.

Ethic

The research implementation obtained ethical approval from the Institutional Review Board of Bolu Abant İzzet Baysal University with decision number 2021/470 dated November 29, 2021 and from the Bolu Provincial Directorate of National Education with a document dated January 4, 2022.

FINDINGS / RESULTS

Reflections On Online Instructional Technologies and Materials

In this section, the findings related to the problem of research are presented. The findings cover various aspects, including the online teaching process, the relationship between technology usage and learning, the use of digital teaching materials in online classes, as well as the advantages and disadvantages of using technologies in distance education. The collected responses are summarized in Table 2.

Table 2. *Views and experiences of the teachers regarding online classes*

Theme	Category	Code	f	%
Experiences	Positive Experiences	Well-conducted classes	9	45.0
		Use of resources	3	1.0
		Technological competence	2	10.0
		Cooperation with colleagues	2	10.0
		A different teaching experience	1	5.0
		Time saving	1	5.0
	Negative Experiences	Misuse of online education	7	35.0
		Increase in technology addiction	4	20.0
		Forgetting to turn off the microphone	2	10.0
		Forgetting school rules	1	5.0

During the interviews with the participating teachers, 10 codes under 2 categories in 1 theme were obtained in response to the question "What are your views and experiences regarding online classes?" (Table 2). Under the theme of experiences, the codes in the positive experiences category were; “well-conducted classes (n=9), use of resources (n=3), technological competence (n=2), cooperation with colleagues (n=2), a different teaching experience (n=1), time-saving (n=1)”, while in the negative experiences category; “misuse of online education (n=7), increase in technology addiction (n=4), forgetting to turn off the microphone (n=2), forgetting school rules” (n=1) codes were identified.

The following statements are highlighted participant comments regarding positive experiences during the online education process.

T1: "We watched a video with the students and provided explanations; it was a truly rewarding

experience. When they expressed how useful it was to them, I felt delighted. We tailored educational technologies according to the students' requests, breaking the monotony of our lessons. Visual and auditory aids are crucial in language teaching, especially when we lack the opportunity for a Native speaker. These materials allowed me to bring the experience of a Native speaker into my classroom, which was a tremendous blessing."

T2: "I consistently received positive feedback from the children, and I believe they grasped that learning goes beyond just paper and can happen anywhere. It reminded me of the famous scene from the Turkish movie 'Hababam Sınıfı' - 'The school is not just four walls.' During this process, they learned that learning can take place in various ways, with mutual effort, of course. While it can never fully replace face-to-face education, we witnessed that learning can continue in this manner too."

T3: "Even our colleagues who were initially unfamiliar with technology had to embrace it. Joining this system, which is inevitable for the 21st century, was an advantage for everyone, including our older colleagues. Sometimes, unfortunately, we even had to assist our friends with the e-school (electronic school management system). In this way, they were compelled to become competent in technology. I believe it's an advantage for them."

T8: "With Canva presentations, my students created captivating showcases of different countries' cultures based on the topic. These presentations were so wonderful and precious to me. Even now, when I assign them a performance project, they come up with amazing Canva presentations."

Along with positive experiences during the online education process, there have also been negative experiences, as illustrated by the following examples.

T13: " Once, a student playfully scribbled on my screen during an online class. The child thought it was a joke, but I quickly resolved the situation by closing the relevant tab."

T17: "In online classes, 5-6 students out of a class of 20 attended the lessons. So, the negative aspect is not being able to reach all the children, not being able to communicate with all of them. Even now, they say there's a difference between the lessons we covered there and the ones now. -Of course, it will be different. I managed with only 5-6 students in those classes."

T18: "Since we are conducting face-to-face education now, students themselves confess: 'We used to listen to you while playing games.' Or when I said 10 points for those who know the answer, 5 points for others, they would look at something behind and answer, I can tell."

T20: "I think the student opens the lesson and listens to me actively, but sometimes their parents sit there, watching me as a family, on behalf of the student."

This section of the research examines students' views and experiences concerning online classes and related technologies. The participant students were interviewed through semi-structured questions, and their responses are presented in Table 2.

Table 3. *Experiences and views of the students regarding online classes*

Theme	Category	Code	f	%
	Positive experiences and views	Engaging/Fun lessons	7	23,3
		Efficiency	5	16,6
		Effective time management	5	16,6
		Like private tutoring	4	13,3
		Reinforcement opportunities	4	13,3
		More conversational	3	10,0
		Comfortable learning atmosphere	3	10,0
		Unrestricted access to resources	2	6,6

		No connection problems	1	3,3
		Protection from COVID-19	1	3,3
		Activity at home	1	3,3
		Advantageous for introverted students	1	3,3
		Effortless usage of dictionaries	1	3,3
		Technological competence	1	3,3
Experiences and Views	Negative experiences and views	Technical/Infrastructure Issues	17	56,6
		Unlike traditional face to face education	11	36,6
		Self management issues	9	30,0
		Distracting factors	7	23,3
		Ineffective for practical skills	4	13,3
		Negative impact on eye health	3	10,0
		Inequality of opportunities	3	10,0
		Insufficient reinforcement activities	3	10,0
		Lack of feedback/ correction	2	6,6
		Teacher centered	2	6,6
		Challenges with screen-based learning	2	6,6
		Insufficient visuals	1	3,3
		Lack of long-lasting learning	1	3,3
		Numerous drawbacks	1	3,3
		Limited use of resources	1	3,3
		Long duration of lessons	1	3,3

During the research, participant students were asked about their views and experiences regarding the online classes. As a result, two themes, two categories, and 30 codes were identified. Under the category of "positive experiences and views" in the Experiences and Views theme, the following codes were identified: "engaging/fun lessons (n=7), efficiency (n=5), effective time management (n=5), like private tutoring (n=4), reinforcement opportunities (n=4), more conversational (n=3), comfortable learning environment (n=3), unrestricted access to resources (n=2), no connection problems (n=1), protection from COVID-19 (n=1), activity at home (n=1), advantageous for introverted students (n=1), effortless usage of dictionaries (n=1), technological competence (n=1) ". On the other hand, under the category of "negative experiences and views," the following codes were identified: "technical/infrastructure issues (n=17), unlike traditional face-to-face education (n=11), self-management issues (n=9), distracting factors (n=7), ineffective for practical skills (n=4), negative impact on eye health (n=3), inequality of opportunities (n=3), insufficient reinforcement activities (n=3), lack of feedback/correction (n=2), teacher-centered (n=2), challenges with screen-based learning (n=2), insufficient visuals (n=1), lack of long-lasting learning (n=1), numerous drawbacks (n=1), limited use of resources (n=1), long duration of lessons (n=1).

Here are a few responses provided by the participating students:

S1: "Despite some advantages like uninterrupted education without connectivity issues and having more time for individual study, I found online learning to be more distracting compared to in-person education."

S3: "From the teacher's perspective, distance education posed challenges in terms of monitoring student engagement and providing necessary support, especially for students without internet access, leading to disparities in accessing education."

S6: "Online education, particularly in English classes, proved to be more engaging due to fun activities and motivating platforms like Kahoot and Quizizz. However, it lacked the immersive feeling of face-to-face learning, and I felt disconnected from the classroom environment when learning

through a computer."

S9: "In my opinion, there are no limitations to learning English online as it primarily involves listening, reading, and speaking. I perceived it as akin to having private lessons, which I considered a positive aspect."

S11: "The 11th grade distance education period focused heavily on grammar, which seemed better suited for one-on-one exercises in the classroom. The lack of sufficient practice during online learning resulted in a slight deficiency in language retention."

S13: "The remote nature of online learning provided comfort for individuals with social anxiety, as teachers couldn't observe them closely during virtual classes."

S17: "During online lessons, the background sounds of my home environment led to conversations with teachers and friends, creating a sense of happiness as they could glimpse into my surroundings."

S23: "Interacting with teachers was made easy during online classes. When we encountered difficulties or didn't understand a topic, teachers organized special broadcasts for personalized explanations, which was a positive experience."

Pros and Cons of the Instructional Technologies and Materials

During the semi-structured interviews, teachers were asked about the advantages and disadvantages of the instructional technologies and materials they used in online English classes, and the responses obtained are presented in Table 4.

Table 4. *Pros and cons of the online instructional technologies and materials*

Theme	Category	Code	f	%
Advantages	Advantages of ITM	Ease of implementation	5	25,0
		Ease of Access	4	20,0
		Attractiveness	4	20,0
		Effective time management	2	10,0
		Visualization	2	10,0
		Opportunity for reinforcement	2	10,0
Disadvantages	Disadvantages of ITM	Insufficient participation	5	25,0
		Challenges in student management	3	15,0
		Prolonged lesson planning duration	2	10,0
		No disadvantageous	2	10,0
		Distracting factors	2	10,0
		Technical/Infrastructure Issues	2	10,0
		Unlike traditional face to face education	2	10,0
		Lack of interest in traditional approaches	1	5,0
		Costly	1	5,0
		Failure to comply with school rules	1	5,0
		Inability to promote practical skills	1	5,0
		Free version limitations	1	5,0

In the analysis of the responses to the question 'What are the advantages and disadvantages of instructional Technologies and materials used during online classes?', two themes with two categories and 18 codes have been identified. Under the theme of advantages, the category of advantages of using instructional technologies and materials includes the following codes: “ease of implementation (n=5), ease of access (n=4), attractiveness (n=4), effective time management (n=2), visualization (n=2), opportunity for reinforcement (n=2)”. On the other hand, under the theme of disadvantages, the category of disadvantages of using instructional technologies and materials includes the following codes: “insufficient participation (n=5), challenges in student management (n=3), prolonged lesson planning duration (n=2), no disadvantageous (n=2), distracting factors (n=2), technical/infrastructure

issues (n=2), unlike traditional face-to-face education (n=2), lack of interest in traditional approaches (n=1), costly (n=1), failure to comply with school rules (n=1), inability to promote practical skills (n=1), free version limitations (n=1).

The teachers' views regarding the advantages of instructional technologies and materials in distance education are as follows:

T4: "Children are already naturally interested in such things because they are born into technology. They are more interested. Also, If I were to prepare a material about words, I would have to work separately for matching, and separately for other things. But, for example, in the Quizlet app, you just tap once, and the whole test appears in front of you. It is much more facilitative in this sense."

T7: "It provides convenience and practicality in terms of time. It creates the necessary suitable environment. For example, it is not always possible to motivate students in the classroom at the same time. However, these students- we call them Generation Z: they are more comfortable and can speak more freely in technological environments. I noticed this. In this way, students became more receptive to learning."

T10: "I sent a lot of tests through EBA (Education Information Network). I constantly sent them quizzes. I used to do this. I can't do this in the classroom. But when I send it through EBA, I can see how many of them have been done, how many have participated. Because you can't check homework now. I send homework and ask them to send me their answers privately via WhatsApp. I write them one by one. But now in EBA, they are all calculated and given to me with percentages."

T12: "I think online lessons were much more efficient because we could spend all 30 minutes with the necessary activities. We didn't have to say sit down, stand up, or be quiet like in the classroom. I mean, if we think about switching from screen to screen, opening the screens we prepared beforehand, we used it very efficiently without wasting time. We didn't just stick to the textbook. I also believe that; the students of this period are naturally more interested in technology. And especially when it's interactive, programs where they can quickly get their answers and receive feedback are much more enjoyable."

Regarding the disadvantages of instructional technologies and materials in distance education, the following teacher views are worth to mention:

T6: "Due to students attending the class with their phones, we encounter technical infrastructure problems. For instance, using Kahoot is challenging for many students who lack the opportunity. Additionally, either your or the students' internet connection might drop."

T7: "The most significant challenge I faced was the lack of infrastructure. A majority of the students did not have access to necessary technological tools or materials. Many of them lived in remote areas without internet, tablets, or phones. Moreover, the platform frequently froze or crashed initially, making it unstable in the beginning. Each student's limited access to necessary tools created some limitations due to unequal economic aspects among students."

T14: "We need to continuously improve our technological proficiency. Sometimes it might not be enough. We cannot master everything, which is why ongoing training is essential."

T19: "One disadvantage of using Zoom's free version is that we need to renew it every 40 minutes when there are multiple participants. This can cause delays in starting the class, especially when students join late. As a result, we may experience five to ten-minute losses in the class. For instance, in my language class with 10 hours a week, back-to-back sessions can lead to some time losses."

Online Instructional Technologies

Table 5 presents the frequency distributions of the responses obtained from the semi-structured interviews conducted with teachers regarding the technologies used during online classes. The table comprises 4 themes, 9 categories, and 32 codes related to the technologies used during online classes.

Table 5. *Technologies used during online classes 1*

Theme	Category	Code	f	%
Video Communication Applications	Virtual Classroom Platforms	Zoom	19	95,0
		EBA	10	50,0
		Google Meet	1	5,0
Supporting Resources	Supporting Platforms	British Council	2	10,0
		EBA	2	10,0
		OGM Materyal	1	5,0
		Duolingo	1	5,0
	Digital Documents	Interactive books	7	35,0
		Ms Office	3	15,0
		Materials created by teachers	1	5,0
	Activity-based web platforms	All Things Grammar	1	5,0
		Esl Games	1	5,0
		Isl Collective	1	5,0
		Wordtest	1	5,0
	Dictionary Applications	Cambridge dictionary	1	5,0
	Video Sharing Platforms	Youtube	3	15,0
		Voscreen	1	5,0
Communication Applications	Social Media Applications	Whatsapp	3	15,0
		Instagram	1	5,0
		Telegram	1	5,0
Digital Material Design	Web2.0 Tools	Kahoot	7	35,0
		Liveworksheets	5	20,0
		Quizizz	3	15,0
		Quizlet	3	15,0
		Canva	2	10,0
		Google Forms	2	10,0
		Sokrative	2	10,0
		Wordwall	2	10,0
		Edmodo	2	10,0
		Mindmeister	1	5,0
		WordArt	1	5,0
	Content Creation Software	EBA VFabrika	1	5,0

During the analysis of the responses given to the question, "What instructional technologies were beneficial during the distance education process?", 4 themes, 9 categories, and 32 codes related to the relevant technologies were identified. The theme of Video Conferencing Applications included the category of Virtual Classroom Platforms, with responses such as: "Zoom (n=19), EBA (n=11), Google Meet (n=1)". It was observed that Zoom and EBA platforms were mostly used simultaneously. Under the theme of Supporting Resources, the category of Educational Support Platforms had responses like: "British Council (n=2), EBA (n=2), OGM Materyal (n=1), Duolingo (n=1)". The category of Digital Documents included responses such as: "Interactive Books (n=7), Ms Office applications (n=3), materials created by the teacher (n=1)". In the theme of Activity-Based Web Platforms, responses included: "All Things Grammar (n=1), Esl Games (n=1), Isl Collective (n=1), Wordtest (n=1)". The category of Dictionary Applications had the response "Cambridge Dictionary (n=1)". Under the category of Video Sharing Platforms, responses included: "Youtube (n=3) and VoScreen (n=1)". For the Communication Platforms, the category included: "Whatsapp

(n=3), Instagram (n=1), Telegram (n=1)" codes. Under the theme of Digital Material Design (Web2.0 Tools), the category included: "Kahoot (n=7), Liveworksheets (n=5), Quizizz (n=3), Quizlet (n=3), Canva (n=2), Google Forms (n=2), Sokrative (n=2), Wordwall (n=2), Edmodo (n=2), Mindmeister (n=1), WordArt (n=1)". Lastly, in the category of Content Creation Software, the response was "EBA VFabrika (n=1).

Below are some responses provided by the participant teachers:

T1: "I could effectively use many video and game programs online, especially the videos and activities related to vocabulary teaching, speaking, and writing on the British Council website, which I couldn't use on the internet or in the classroom. I used Google Forms a lot. I used it for quizzes as well. Not for grading purposes, but to monitor what I taught and evaluate my students. I also used Quizizz, but I felt more comfortable using Google Forms. Students found it very easy to use, as they could access it from their phones. I extensively used Kahoot, especially for games and competitions."

T1: "During online classes, I effectively utilized various video and game programs, especially the ones related to vocabulary teaching, speaking, and writing from the British Council website, which were not feasible to use in the traditional classroom setting. Google Forms became an essential tool for me; I employed it not only for quizzes but also to monitor my teaching progress and evaluate my students. Although I also tried Quizizz, I felt more at ease using Google Forms since students found it user-friendly and accessible from their phones. Additionally, Kahoot played a significant role in making my classes engaging through games and competitions."

T2: "I found OGM materials and interactive books to be highly beneficial in my teaching approach. Interactive books surpassed regular PDFs, as they allowed students to listen to audio and then solve tests with just a click. Alongside these, I also integrated web2.0 tools like Kahoot and Quizlet into my teaching repertoire."

T3: "In the past, I was aware of platforms like Kahoot and Socrative, but we had limited opportunities to utilize them effectively. However, during online teaching, we embraced these platforms more enthusiastically. Interactive textbooks have been a valuable resource, streamlining our work and enabling swift progress in lessons. They spared us from excessive time spent on preparing extra materials. In addition to interactive books, I discovered the versatility of Wordwall, which offers numerous activities, as well as Liveworksheets."

T8: "During the previous academic year, while teaching preparatory students, I seized the opportunity to motivate them through various means. Notably, they prepared beautiful presentations using Canva. Subsequently, I incorporated resources like Isl Collective and Liveworksheets to introduce different sources for exercises."

T9: "Zoom served as my primary platform for conducting classes. Although I initially faced challenges with EBA, I eventually adapted well to Zoom. The glitches and problems during EBA meetings prompted me to switch platforms. Although I didn't use many games with high school students, I effectively employed screen sharing to explain concepts and content, which proved to be quite valuable."

T18: "In the in-service trainings, I became acquainted with VFabrika, a platform focused on creating programming-related questions within EBA's content. I made an effort to undergo their training and also explored tools like Wordwall from Web2.0."

T20: "I found interactive sites like Liveworksheets highly beneficial, as they appealed to students due to their interactive nature. Additionally, I discovered a game site called EslGames, which allowed me to organize word contests and quizzes, making the learning experience more enjoyable for the kids."

On the other hand, Table 6 presents the frequency distributions of instructional technologies and materials that are used during online lessons, derived from the responses of students during semi-

structured interviews.

Table 6. *Technologies used during online classes 2*

Theme	Category	Code	f	%
Video conferencing applications	Virtual classroom platforms	Zoom	29	96,6
		EBA	25	83,3
		Google Meet	1	3,3
		Vedubox	1	3,3
Digital material design	Web2.0 tools	Kahoot	2	6,6
		Quizizz	2	6,6
		Padlet	1	3,3
Supplementary resources	Digital documents	Ms Office applications	9	30
		Unnamed resources	5	16,6
		Interactive books	3	10,0
		Teacher'sown resources	2	6,6
	Educational support platforms	British Council	2	6,6
		OGM Materials	2	6,6
		Duolingo	1	3,3
		Morpa Campus	1	3,3
	Video sharing platforms	Youtube	5	16,6
	Quiz makers	Flexiquiz	1	3,3
	Dictionary applications	Tureng	2	6,6

The responses provided by the participating students to the question "What instructional technologies are used in online classes?" were analyzed, resulting in 18 codes across 7 categories and 3 themes. The theme of Video conferencing applications includes the Virtual Classroom Platforms category with the following codes: "Zoom (n=29), EBA (n=25), Google Meet (n=1), Vedubox (n=1)"; the Digital material design theme includes the Web2.0 tools category with the following codes: "Kahoot (n=2), Quizizz (n=2), Padlet (n=1)"; the Supplementary resources theme includes the Digital documents applications category with "Ms Office applications (n=9), Unnamed resource (n=5), Interactive books (n=3), Teacher's own resources (n=2)"; the Educational support platforms category includes "British Council (n=2), OGM Materials (n=2), Duolingo (n=1), Morpa Campus (n=1)"; the Video sharing platforms category includes YouTube (n=5); the Dictionary applications category includes Tureng (n=1); and the Quiz makers category includes Flexiquiz (n=1) responses.

Here are some of the prominent student responses:

S2: "We primarily used Zoom for our lessons, although EBA was also utilized. Zoom was preferred due to the frequent crashing and functionality issues experienced with EBA."

S6: "Engaging in games and activities through platforms like Kahoot and Quizizz significantly impacted my English learning in a positive way."

S9: "Exclusively using e-books allowed us to access various exercises and activities from different books on the screen, which was a helpful and convenient learning experience."

S10: "OGM Material was utilized, providing a valuable resource for students who couldn't access or afford the test book, offering an alternative and useful solution."

S17: "Initially, we used EBA at the beginning of the quarantine period, and then transitioned to Zoom for the rest of the quarantine."

S25: "Our teacher effectively utilized internet resources, such as working sheets and explanatory pages, to reinforce the subjects covered in class, which were also used for homework assignments."

S27: "English websites on Google were utilized for various activities related to our topics, which was comparable to the teacher photocopying and distributing materials in a physical classroom,

providing us with valuable learning opportunities. Additionally, Liveworksheets was among the beneficial applications used."

S30: "We made use of multiple platforms, including Google Meet, Zoom, Flexiquiz, and Padlet, to facilitate our online learning experience."

DISCUSSION, CONCLUSION, RECOMMENDATIONS

In this section, the findings from the semi-structured interviews have been discussed in conjunction with relevant literature.

Discussion on Studies Conducted with Teachers

During the COVID-19 pandemic, when examining the perspectives of participating teachers on the online teaching process and the utilized technologies, positive views included codes such as "well-conducted classes, use of resources, technological competence, cooperation with colleagues, a different teaching experience, and time-saving." Being consistent with this research, Türküresin (2022) highlights that online courses offer advantages for teachers, including cost-effectiveness, repetition opportunities, and flexibility in terms of time and space. As for the negative views towards the process and technologies were identified as "misuse of online education, increase in technology addiction, forgetting to turn of the microphone, and forgetting school rules." In line with this research, Altan (2021) also highlighted in their study that participants considered "being able to interact even though it is on the screen" and "gaining distance education experience" as positive outcomes of the process, while "technical glitches and difficulties in classroom management" were expressed as negative consequences of the process. Similarly, Türküresin's (2022) research identifies the disadvantages of online education as "Lack of Permanence in Learning, Issues Stemming from Assessment and Evaluation, Discipline Problems, Internet Issues, System Glitches, and Lack of Interaction. In regard to the advantages and disadvantages of the online education process, the following advantages were identified: "ease of implementation, ease of access, attractiveness, effective time management, visualization, and opportunity for reinforcement". Conversely, the identified disadvantages include: "insufficient participation, challenges in student management, prolonged lesson planning duration, no disadvantageous, distracting factors, technical/infrastructure issues, unlike traditional face-to-face education, lack of interest in traditional approaches, costly, failure to comply with school rules, inability to promote practical skills, and free version limitations". It is noteworthy that this section exhibits a diversity of views, with more codes in the disadvantages category compared to the advantages. Upon analyzing the findings of this research, it was observed that teachers faced difficulties during the rapid transition to distance education. Teachers with a greater interest in technology experienced less difficulty adapting to the process compared to their colleagues. However, some teachers encountered disruptions in lessons due to technical and infrastructure inadequacies. In line with this research, according to a study conducted by Machmud (2011) with 4 English teachers, 3 faculty members, and 2 administrators, despite having the opportunity to access technology, many participating teachers preferred not to use technology in their classes; instead, they continued the process using traditional teaching methods. The study suggested that this situation stemmed from the participants' lack of knowledge on how to use digital tools and their reluctance to make efforts to use these tools.

Aligned with this research, Akden and Koç (2022) found in their study on the effectiveness of information technologies in distance education during the pandemic that the advantages of distance education included "easy access to resources, spatial and temporal independence, continuous education during the pandemic, protection from the pandemic, content richness, and increased technology use in education." Conversely, the disadvantages were determined as "opportunity inequality, difficulty in controlling the environment, inability to establish eye contact, insecurity in assessment, adaptation problems for practical lessons, and lack of school atmosphere." Another study discussing the advantages and disadvantages of distance education identified the following

advantages: "creating an opportunity for shy students to express themselves, being more economical due to the absence of expenses such as meals, transportation, and clothing, developing self-management skills, and digital literacy." The study also highlighted the following disadvantages: "lack of social interaction, effective time management, difficulty in assessment, misuse such as copying, changes in the social role of teachers, and ineffectiveness for lessons requiring practical skills" (Söğüt, 2022). In a different study found in the literature, Balaban and Tiryaki (2021) reported that during the distance education process, stakeholders (teachers, students, and parents) did not have the same conditions in terms of internet infrastructure, computer hardware, and other facilities. As a result, their participation in classes and the level of benefit they derived from the lessons varied, leading to a decrease in students' and teachers' interest, willingness, and motivation. Consequently, as stated in a study conducted by Gaquit (2020), which examined the perspectives of high school English teachers in Sweden on online education, it reveals that distance learning has both advantages and disadvantages.

When examining the applications and technological tools utilized by teachers during the distance education process, the following responses were identified as "Zoom, EBA, Google Meet, British Council, EBA, OGM Material, Duolingo, interactive books, Ms Office applications, and materials created by teachers, All Things Grammar, Esl Games, Isl Collective, WordTest, Cambridge Dictionary, Youtube and VoScreen, Whatsapp, Instagram, Telegram, Kahoot, Liveworksheets, Quizizz, Quizlet, Canva, Google Forms, Sokrative, Wordwall, Edmodo, Mindmeister, WordArt, EBA VFabrika".

Discussion on Studies Conducted with Students

During this stage of inquiring about students' experiences and opinions regarding online classes, positive views and experiences were identified as "engaging/fun, lessons, efficiency, effective time management, like private tutoring, reinforcement opportunities, more conversational, comfortable learning atmosphere, unrestricted access to resources, no connection problems, protection from COVID-19, activity at home, advantageous for introverted students, effortless usage of dictionaries, technological competence". These responses were consistent with the findings of Ülker's (2021) research in the relevant literature, which also highlighted "engaging/fun lessons, lesson efficiency, effective time management, reinforcement opportunities. On the other hand negative experiences and views regarding the interview question were identified as "technical/infrastructure issues, unlike traditional face to face education, self-management issues, distracting factors, ineffective for practical skills, negative impact on eye health, inequality of opportunities, insufficient reinforcement activities, lack of feedback/correction, teacher-centered, challenges with screen-based learning, insufficient visuals, lack of long-lasting learning, numerous drawbacks, limited use of resources, long duration of lessons". Notably, the number of negative experiences surpassed the positive ones in the students' responses. Consistent with the findings of this research, Kaya's (2020) study on challenges faced by learners during online education also revealed "lack of sufficient internet access, difficulty in following the class with a mobile phone, lack of learning motivation, low student participation, negative attitude towards distance education, lack of independent learning skills, lack of learning responsibility, lack of computer skills, failure of lessons to meet student expectations, lack of experience in online learning, unpreparedness for online learning, failure to actively participate in classes, disconnecting from the class after a while." Similarly, Akyıldız's (2020) study showed that students expressed dissatisfaction with the distance education period due to "insufficient teacher-student interaction in online classes, limited opportunities to ask questions, difficulty understanding lessons, lack of sufficient feedback-correction, leading to an overall perception of the process as unsuccessful". It is worth noting that although Akyıldız's (2020) study focused on university students, the problems faced in the online learning environment were similar from the student perspective,

including issues such as "insufficient interaction, difficulty in understanding lessons, inadequate feedback-correction". Being consistent with this study, in a study conducted by Lin (2019) with 46 students, opinions on open educational resources are divided into positive and negative aspects. According to the findings, students expressed that open educational resources are economically more affordable, have advantages in terms of richer multimedia content, are suitable for mobile learning, and support self-directed learning. On the other hand, they mentioned disadvantages such as the absence of a familiar tangible textbook, slow internet connection, insufficient clarity in instructions, and a lack of self-regulation. The participating students also mentioned that they primarily faced technical and infrastructure problems during the distance education process, leading to inequalities among students. Additionally, as the participants were at the high school level and had less parental supervision, they experienced difficulties in self-management and self-regulation. Especially after the Ministry of National Education (MEB) (2020) announced to the public that non-participation in online education would not affect attendance, and only the grades obtained in the first semester exams would be valid, some learners with external motivations, such as grades and attendance requirements, became complacent and stopped making efforts to attend classes. This situation became the main reason for the differences in learners' knowledge levels. Students emphasized the need for lessons to be designed with materials that appeal to their interests and are attention-grabbing during online education. On the other hand, online education provided an opportunity for shy students to express themselves, which is a positive effect of what might seem like a negative situation. Additionally, some learners mentioned that the absence of time-consuming elements like commuting during online education resulted in more effective use of class time. However, attending classes from home (as one participating student put it: "not having the seriousness of school") also had a negative impact on learners' focus during online education. Moreover, in the current era, many high school students use their computers, tablets, phones, etc., more for playing games, which may divert their attention while attending classes with these devices. The most effective way to encourage active participation in class over playing games is through online education activities that are fun, interactive, competitive, and at the same time, highlight the importance of collaboration".

The responses provided by the participating students to the question "What instructional technologies are used in online classes?" were analyzed, and the instructional technologies and digital materials were identified as "Zoom, EBA, Google Meet, Vedubox, Kahoot, Quizizz, Padlet, Ms Office tools, unnamed resources, interactive books, teacher's own resources, British Council, OGM Material, Duolingo, Morpa Campus, YouTube, Flexiquiz". These tools are beneficial technologies for diversifying learner-centered class environments, capturing students' attention, and reinforcing learning. In contrast to this study, Kayar (2019) found that English teachers in high schools mostly used Kahoot, Youtube, and MS Powerpoint slides in their classes. Inconsistent with this research, a study conducted by Gümüş (2023) revealed that, the students mostly used "WordArt, Canva, Toonytool and Padlet" during online classes. The limited use of technologies identified in Kayar's (2019) study may be attributed to the research being conducted before the pandemic period. However, looking at the period coinciding with the pandemic, a study by Hart (2021) involving 2077 participants from 33 countries revealed that Quizizz was the most widely used tool in distance education, ranking 21st; Kahoot ranked 10th, and Canva ranked 6th. Considering that Quizizz, Kahoot, and Canva were mentioned as the top three applications used by students, it was deemed appropriate to mention their rankings (cited in Sarıgül, 2021). The top 10 tools in the list were as follows: "Youtube, Google Docs, Powerpoint, Zoom, Google Search, Canva, Google Meet, Word, Google Classroom, and Kahoot" (cited in Sarıgül, 2021). When examining the technologies listed in Hart's (2021) study, it can be said that the current list is consistent with the research findings.

Conclusion

In conclusion, this study provides valuable insights into the experiences and challenges faced by teachers and students during the transition to online teaching. Consequently, it contributes to the ongoing discourse on the future of education while emphasizing the vital role of teachers in shaping students' learning experiences in the digital age. Overall, this study highlights the importance of creating a supportive and interactive online learning environment to maximize students' learning experiences. By understanding students' experiences, educators can better design online courses that cater to their needs and preferences. Hence, education should proceed as closely as possible to its previous state, regardless of any circumstances (Shereen et al., 2020). In this context, it is worth noting that learning activities based on technology can enhance critical thinking skills, creativity, collaboration, and communication to support the construction of social knowledge (Shi, 2021). However, some students also encountered challenges, including technical issues and difficulties in understanding lessons. These findings contribute to the existing literature by shedding light on the benefits and drawbacks of online education. While the inclusion of ICT elements can add an element of enjoyment to the teaching and learning process, students need to adopt a positive attitude and be motivated and skilled through a teacher-guided approach.

Recommendations

• Adequate technological tools, hardware, and software support can be provided to students who lack sufficient means to participate in distance education. Additionally, ensuring that all students have the necessary equipment and internet access is essential.

• Free internet access can be offered to teachers and students during the distance education process.

• Areas with weak internet infrastructure can be identified and strengthened nationwide.

• Attendance limits can be set for students participating in online classes.

• Teachers can receive face-to-face and hands-on in-service training to enhance the quality of distance education.

• More attention can be paid to ensuring that the materials used in classes are compatible with the learning outcomes and appropriate for the students' levels, as well as engaging and appealing to their interests.

• To prevent online classes from becoming boring, students can be supported with educational games and activities suitable for their levels.

• A space can be created in the EBA teacher module or another platform affiliated with the Ministry of Education, where subject-specific online lesson plans/resources are shared.

• This research is limited to the high school level. Further studies can be conducted on English classes at the elementary, middle school, and university levels to examine differences between different educational levels.

• This research specifically focuses on online English classes during the pandemic from the perspective of teachers and students. A more comprehensive study involving parents and school administrators could be conducted.

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