# **Applications Used in Distance Education in English Language Classrooms**

# **Omer Faruk Ipek**

theipekk@gmail.com

Bolu Abant Izzet Baysal University, Turkey

## Zafer Ustunbas

zaferustunbas@ibu.edu.tr

Bolu Abant Izzet Baysal University, Turkey

#### **Abstract**

Integration of technology in the teaching/learning process has caused many changes in education in recent years. In addition, due to the pandemic that surrounded the world at the beginning of 2020, schools had to switch from face-to-face to distance education; therefore, the need for technology use and expansion of online applications became inevitable. As a result of this massive change in education and the emergence of online applications as language learning tools, this evaluation study investigates Edpuzzle, Flipgrid, Padlet, and Quizlet that are created as educational applications used in English language classes. The paper starts with the hegemony of technology in education and then continues with the evaluation of these online applications. Lastly how to use these applications effectively in English as a foreign language (EFL) classrooms is discussed. It can be reported that EDpuzzle can mostly be used for authentic video sessions; Flipgrid is effective on online speaking skills; Padlet is helpful with students' writing skills, and lastly, Quizlet is beneficial for vocabulary teaching. It can be concluded that online applications are likely to result in effective assistance of learning and practicing both for language teachers/students and learning/teaching processes.

# **Keywords:**

applications, English language teaching, online education

#### How to cite:

Ipek, O.F. & Ustunbas, Z. (2021). Applications Used in Distance Education in English Language Education. *Journal of English teaching*, 7(3), 260-272. DOI: https://doi.org/10.33541/jet.v7i3.3027

### INTRODUCTION

The use of technology has become an inseparable part of language classes with the ongoing advancements. Moreover, technology integration has increased in the whole education community as face-to-face education, which has been implemented for years, has evolved into distance education after the pandemic, and online education has become compulsory in many educational institutions (Mahyoob, 2020; Ariyanti, 2021). Evisen et al. (2020) described this incident as a painful process that schools and institutions all over the world needed to shift to distance education. The shift has been so fast and sudden, but schools tried to cope with the difficulties of the new paradigm.

Although schools experienced instant and painful shift, many positive feedbacks from the schools have been given. For instance, Cakrawati, (2017) states that online education is beneficial for teachers and students in many ways such as saving time, acquiring new language items in different ways and having higher motivation. Alsied and Pathan (2013) assert that it is undeniable that integration of technology brings a lot of advantages for language learning as teaching and learning English has turned into a more practical and entertaining phenomena by means of technological developments. Although many benefits are listed in the literature, Mese and Sevilen (2021) point out that English language teaching (ELT) through distance education has several disadvantages such as lack of social interaction, mismatch between expectations and content and organizational problems.

With the advent of technology, expansion of distance education and increasing mobile applications for language learning, EFL teaching has undergone a transformation in terms of teaching sources. Apart from computers, mobile phones and their apps have also been benefited in EFL classes lately. A new concept, Mobile-Assisted Language Learning (MALL) has been introduced and it is a relatively new method in EFL teaching. Numerous studies have been conducted to investigate the aspect of mobile assisted language learning (eg., Norbrook & Scott, 2003; Chinnery, 2006; Chang & Hsu, 2011; Kim, Ruecker & Kim 2019; Al-Shehab, 2020; Gharehblagh & Nasri, 2020; Viberg, Wasson & Kukulska-Hulme, 2020; and Hoi & Mu, 2021). Teachers integrate online applications into their classes to help with teaching of language skills and these applications have become a widespread source for teaching or practicing language skills inside or outside the class. Bringing these tools and the EFL learners who are digital natives together help increase the learners' motivation and turns classrooms into a dynamic environment (Colpitts et al., 2020). In the last years, more and more websites and applications that have flexible features have been developed for both learning and teaching English, thus, turning the language learning experience into lifelong one.

Kern & Warschauer (2000) stated that with the expansion of internet worldwide and in education that computers and networks are linked to each other, programmed applications has been used widely. These innovations enabled human-to human and human to applications communications. For such communications, Arslan (2008) listed learning activities as follows:

- 1. Lexical quizzes, games and other vocabulary learning specific activities (e.g. lexical maps, concordances use, class dictionary building).
  - 2. Grammar tutorials, exercises, simulations and games.
  - 3. Listening and pronunciation virtual lab activities
  - 4. Reading and writing web tasks: treasure hunts, WebQuests,

- 5. Multimedia web tasks: scrapbooking, samplers, podcasting, tasks with authentic multimedia materials from social sites, ...
- 6. Computer Mediated Communication activities (email exchange, collaboration projects, CoP)
- 7. Use of blogs and wikis for individual or group language learning e-portfolios. (Arslan, 2008; p. 17)

Other than being feasible to in-class time, these learning tools could also be benefited by EFL learners outside the class. Language learners can draw upon the features of mobile phones that make it possible to learn a language at any time (Kukulska-Hulme, Morris & Donohue, 2015, as cited in Gharehblagh & Nasri, 2020). Mobile features, especially mobile language applications facilitate the autonomous learning and self-regulatory activities enabling the students to practice at their own pace at home and taking the responsibility of their own learning. As motivation and interest are important factors in EFL learning, the primary advantage of these tools is that they help motivate the students at any conditions.

Although many language learning tools and applications have been introduced and technology use in classes is increased, students and language educators have been assigned to implement online education without any professional training and assistance in their classes (Riviera, 2000). With the help of fast-growing technology and online education, all stakeholders of education were confused with planning, delivering, receiving, and implementing online lessons. Therefore, for the current study, it is intended to evaluate four educational tools that could be used in EFL teaching and learning contexts. Evaluating such tools seems quite important since teachers who have not been educated in this technological era may find it difficult to cope with such innovations. Therefore, in this evaluation study, in order for both students and teachers who want to engage themselves into the online learning/teaching to find out what and how to use such applications, we investigated the following questions;

# **Research Questions**

- 1. How do Edpuzzle, Flipgrid, Padlet and Quizlet help improving English language skills?
- 2. How are Edpuzzle, Flipgrid, Padlet and Quizlet used in EFL classes?

# **METHOD**

This research is designed as qualitative research in order to evaluate four online educational tools used in EFL classes. Three evaluation tools are used holistically for data collection and data analysis. Ellis (1997) distinguished materials evaluation into two: the predictive evaluation in which the evaluation is made before the materials are used in classrooms and without actual testing, and the retrospective evaluation that is the examination of materials that were tested by the teachers or empirical research has been conducted. In this study, a retrospective evaluation has been conducted that is the researchers tested these applications with the help of Uzun's (2009) checklist and Fuentes and Martines' (2018) evaluation tool.

### **Data Collection**

In this study, the data is collected through Ellis' (1997) retrospective evaluation method. In this method there are seven steps. These are choosing the material, describing the material, planning the evaluation, collecting the information, analysis, reaching a conclusion, and writing the report. Adhering to these stages, four online applications to be evaluated were determined and then implemented these stages.

# **Data Analysis**

Uzun (2009) developed a materials evaluation checklist which was first designed to investigate the effectiveness of a vocabulary teaching application. The key components of this checklist are intended users, language learning scope, practicality, and device requirement. However, it is a convenient checklist to be adapted into different instructional materials. On the other hand, Fuentes and Martines' (2018), in their evaluation tool, proposed nine evaluation areas for educational websites, such as 'general site information, language skills and components, educational material, multimedia use, interactivity, communication, aid tools and linguistic resources, website ergonomics and content quality' (p.33). By integrating these two evaluation tools, we evaluated these four educational online applications holistically.

## **RESULTS**

# **EDpuzzle**

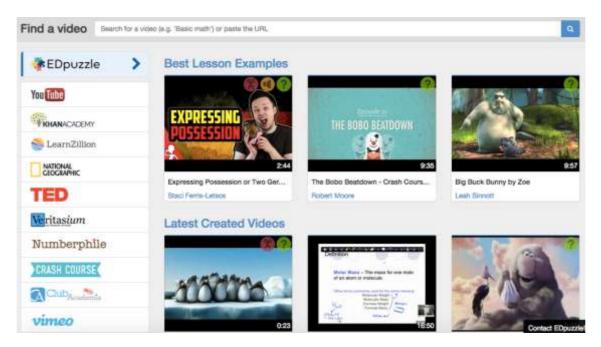
Listening is one of the most important and difficult language skills for some learners because it comes first in natural order, whether it is native or foreign language. According to Krashen (1982), acquisition happens through a natural way, just as babies acquire their native language through listening to the surrounding sounds without an instruction or outside force. In this way, the acquisition period happens to start naturally, which gives an insight to Natural Order Hypothesis (Krashen, 1982).

Authentic material is an important factor in foreign language learning, especially for listening skill since it contains the target language in its natural form. Foreign language learners must be exposed to these types of materials to gain a positive attitude towards language learning. Authenticity enriches the learning experience since it provides benefits for learners as Young (1980) stated that it prevents learners from having culture shock with motivating and useful content. Hence, exposing to authentic materials such as TV series, movies or videos in English can be helpful for language learners to mitigate the culture shock and bias towards English.

EFL learners have very little opportunity to experience the spoken English in its natural form in daily life since it is not spoken as first or second language in most countries in the world. Exposing to the natural use of English in or out of class might increase the students' motivation in language learning. They can hear the native English only in authentic videos. To eliminate the effect of authenticity drawback, teachers and students could benefit from certain tools such as language apps and websites providing this content to the users. Besides hearing the natural use of language, learners can also develop an intercultural competence with the original content presented in the videos in these tools. Taking into consideration in above-mentioned issues, EDpuzzle (Illustration 1) could be useful for EFL learners, especially in distance education.

Prawati and Novitasari (2017) summarized the use of EDpuzzle and gave details about a basic EDpuzzle class. It is described that this tool can be for simple video sessions, edit the video, creating videos in pairs, combining EDpuzzle activities and using them in

flipped classrooms. It is also stated that this application allows teacher to choose a video and personalize it to the classroom and individual needs. It also aid teachers to save time in preparing visual materials.



**Illustration 1.** Interface of Edpuzzle

It is an educational tool providing variety of embedded videos that are entertaining and interactive from YouTube, TED, Khan Academy etc. on every possible topic in English or any other languages, which allows students to have authentic input. One advantage is that teachers can also upload exterior videos to their own content page in line with their curricula and edit all sources of videos however they want. They can even insert their own voices in the video. Multiple choice and open-ended questions can be embedded in the video at any seconds; thus, they appear when it comes to that specific second. Editing it in this way does not jeopardize the authenticity of the video because the content remains natural and original. Creating multiple classes is also allowed. Any videos can be assigned to the students by their teachers. After the assignment, detailed students' progress can be also monitored. This app can be used in face-to-face education in the class, but it seems more applicable to blended and distance learning as students can watch any videos of their own wishes and at their own pace out of the class. These authentic videos could especially be a good sample for formal and colloquial language. Students can see daily expressions and the appropriate use of speech acts such as apologizing, thanking, making a request etc. in the videos. Cesare et. al. (2021) stated that EDpuzzle can used by teachers to foster explicit instruction. This app requires active engagement of students, thus, facilitating autonomous learning. The main advantage is that it enables teachers to track the students' progress and engage them with questions about the content they watch.

# **Flipgrid**

Changing from face-to-face education to distance education due to the global issues brings along some difficulties and drawbacks. The major impact is that it prevents face-to-face communication causing interaction to decrease. Communication is the leading factor in EFL. With the introduction of Communicative Language Teaching in 1980's, interaction became more important for EFL classes. This approach can be implemented in face-to-face education, but it does not seem appropriate to adopt it wholly in distance education. Especially, oral production of students and interaction between the teacher and students is hindered to some extent. Students may start to have deficiency in speaking skill since it could be stated that the in-class communication cannot take place healthily between stakeholders in online classes. For this reason, FlipGrid (Illustration 2) could be a beneficial tool to facilitate the oral production.

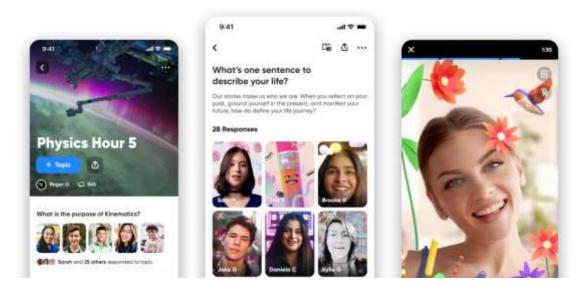


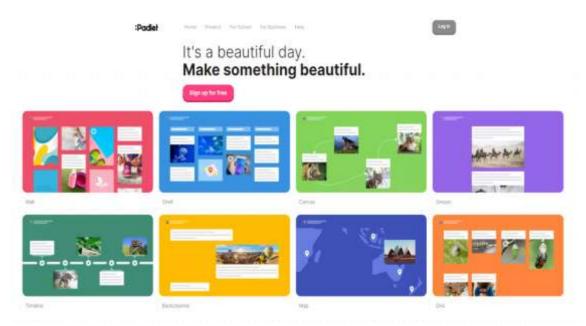
Illustration 2. Interface of FlipGrid

It is a website that allows teachers start a topic to be discussed and share it with their students in the online class that they create. Students are invited to the topic through their e-mail addresses, and they post their video recordings about their thoughts on the topic. It is more appropriate for higher education because it requires the correct use of technology. This app is applicable to any levels of proficiency, but the difficulty of discussion topic may vary in accordance with the students' competence. For example, while beginner students make a video recording introducing themselves at the beginning of the course, students with higher proficiency can talk about more sophisticated topics at more advanced levels. Users can see each other's videos on the discussion page and make comment under them. Through the discussion panel, students may have interaction despite not the same as in-class.

Lowenthal and Moore (2020) found out in their study that students have positive perceptions about FlipGrid in that it fosters interaction in distance education. Budiarta and Santosa (2020) also concluded in their research that EFL learners have positive attitudes towards EFL speaking class in FlipGrid. The findings also resulted that the speaking performances and contemporary skills of the participants increased.

#### **Padlet**

Padlet (Illustration 3) is a web-based tool that allows users to post multimedia and texts on the virtual wall. It is similar to blog in terms of schemata and interface, but it is more elaborate in the options that it provides to the users. Teachers can create up to five different walls for each topic in free account and expect students to post what is instructed to them on the wall. For example, it could be used for introducing, class discussions, generating ideas, writing stories and experiences and open-ended questions. As it requires active engagement of students by letting them to work as individuals, pairs or groups, students can get motivated and engaged in the class.



**Illustration 3.** Interface of Padlet

One shortcoming of distance education is that it naturally prevents in-class interaction between teachers and students. For this reason, one field it profoundly affects is writing classes in that teachers cannot see the hard copy of writings and feedback session is not fulfilled properly. Through Padlet, students can be assigned online to write paragraphs, short texts, articles, stories etc. and teachers can do corrective feedback on students' writing with the help of various editing options. Even peer feedback is applicable since all the students can see each other's work on the wall and have permission to edit. Pictures, videos, audios can also be added to the entries allowing students to feel themselves more connected to the task.

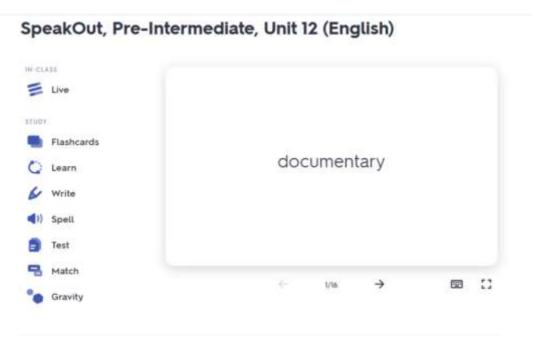
Padlet is free of charge and easy to use, so it appeals to all kinds of users who are capable of using technology. Its interface allows teachers to create walls with different wallpapers, color designs and fonts. Upon creating a Padlet, teachers share the link of it with the students. This app could also be used as a bulletin board of the class. For example, exam announcements, notices, tongue-twisters, videos or other fun activities can be posted on the dashboard.

Taking these into consideration, Padlet is a useful and engaging tool for education. Researchers conducted studies on the usefulness of the app and concluded positive results. Zhi and Su (2015) stated that Padlet facilitate learning and participation by increasing performance and motivating students. Also, Nadeem (2021) found that Padlet fostered active participation of students and provided an assessment choice. The study also showed that it increased collaboration and created a positive learning environment.

# **Ouizlet**

Quizlet (Illustration 4) is an internet-based learning tool through which the users can practice vocabulary in learning languages. Upon creating a set with target vocabulary, the system automatically put these words into different types of activities such as flashcards, matching, test and typing which allows the users to study repeatedly. When finished all the activities in a set, the users can see their progress on how well they have done.

This app serves the best for practicing vocabulary in EFL learning. The exercises are not fully meaningful but mostly mechanical because there is no contextualization. Despite this, it helps learners recognize and internalize the words easily with the help of reminders such as pictures and repetitive tasks. Teachers can invite their students after creating a class and sending them links to join. Then, they can assign vocabulary sets to the class and see the students' progress. It also provides competition option that requires students to come together creating groups itself. In this respect, it leads to active engagement and collaboration of students. However, students need an access to internet with a tool like smartphone, tablet computer to be able to study the sets and specially to take place in the live competition in the class in face-to-face education.



**Illustration 4.** Interface of Quizlet

Quizlet is advantageous like other apps in that it is user-friendly and offers a lot of features in a free account. Studies about Quizlet revealed that it is considerably useful,

have positive effects on vocabulary learning, and preferable by students (e.g. Anjanputra & Salsabila, 2018; Bueono-Alastuey & Nemeth, 2020; Platzer, 2020; and Yüksel, Mercanoğlu & Yılmaz, 2020). As learning vocabulary seems challenging for students, this software can be used in language teaching since it involves engagement of students and increases their motivation.

### **DISCUSSION**

After the emergence of distance education, not only the contemporary models and methods of language teaching had expanded, but also the materials and applications used in English language education underwent through massive changes. Since new applications and technological tools occurred, the need for the academic studies and publications also emerged in order for helping teachers who seek ways to find out the latest developments and applications to use in their own classes.

Baylor and Ritchie (2002) claim that for more than 20 years, the value of technology forced education stakeholders to change their way of designing their programs. Also, it is supported that using technological tools in education is compulsory in order for thriving effects in the classrooms (Ertmer & Ottenbreit-Leftwich, 2010).

It is pointed out that classical language teaching ways are not always effective and efficient, and using new technologies and tools may propose possibilities to consider individual abilities and differences. (Milliken & Barnes, 2002). On the other hand, Prensky (2001) argues that using technological tools in classes may be difficult for some teachers who do not have a previous technological education. Therefore, teachers who have not been educated in technology, experience difficulties in adapting to this new world. Also, Lee claims that (2000) technology is essential in ELT classes regarding motivation, developing student achievement, having authentic materials, extended communication, and being independent from the curriculum, understanding the global world.

There are various empirical studies that emphasized the importance of online applications in the language education. Coskun and Marlowe (2015) studied the effect of two Web 2.0 tools which may be adapted into the language education. It stated that the participants had positive attitudes towards using such innovative tools in their learning process. Although all students expressed the benefits of these tools, few instructors expressed their concerns about adapting themselves into this new way of teaching. Using such technological tools in education aided learners master the very basic skills in language learning (Ghasemi, Hashemi, & Bardline, 2011; Sun, 2014), increase student comprehension levels (Macho, 2005) suggest a wide range of cooperation and interaction activities (Lee, 2005; Gonzalez & Louis, 2018), and let students possess higher degrees of self-confidence (Pop, 2010).

Several researches mentioned the drawbacks of using technology and internet in EFL classes (Chin-Hsi Lin & Warschauer, 2015). Sharma and Bumb (2021) conducted a quantitative research about challenges faced in technology driven classes. 624 people participated in their study, and they found that online education caught both students and instructors offhanded. It is claimed that both parties do not have enough time for

preparation and collect necessary resources. Moreover, it is declared that the online platforms may have tiring features, people may have difficulties in accessing to the internet, personal features such us lack of social online interaction. Moreover, in a study that Shabbir and Khan (2019) conveyed, it is concluded that teachers encountered with connection problems, little knowledge of technology use in their classes and lack of technical training and assistance. Also, the background of language teachers has an effect on using online applications and technology in EFL classes. Gomleksiz (2004) conveyed a research about technology use on 150 English language teachers. It is found that although teachers have positive attitude towards technology is in their classes, their technology use are not at a desirable level. It is pointed out that teachers who are majored in English language teaching departments have more affirmative feelings towards technology use than the teachers who majored in other fields. Also, it is stated that language teachers believe in the importance of technology in their classes however, they do not favor to use it. Moreover, it is claimed that their schools lack the required technological tools, and the school cannot help them with the necessary support.

#### CONCLUSION

The use of such applications may result in positive attitudes for students towards language learning as it is a different and motivating way of learning and practicing a language. It may affect the student learning experience favorably. Including such applications in the program may also enrich the quality of learning, and influence student attitude towards language learning (Putri, 2019). Moreover, it can be said that understanding may be much clearer as this type of learning would give students options about their learning choices. Although it may be time consuming for teachers to prepare for using such application, it would provide higher quality of language learning and chance for language practice.

For the future planning, better preparations should be done by all parties of education as online learning needs more time and preparations than face-to-face education. Also, language teachers need to be familiarized with the effective use of such applications in their classrooms (Atmojo & Nugroho, 2020). Moreover, students should be educated about how to benefit from these tools and use them autonomously which means that language education changed its route from inside to the outside of the classroom. Another change is required in the teacher education programs. Schneckenberg (2010) claims that policies and teacher education programs face a different challenge to plan their system due to the changing needs of technology using students. After the expansion of technology and online education, language teacher education programs should not remain indifferent to these changes.

#### REFERENCES

Ariyanti, A. (2020). EFL students' challenges towards home learning policy during Covid-19 outbreak. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 5(1), 167-175.

Al-Shehab, M. (2020). The Role of Mobile-Assisted Language Learning (MALL) in Enhancing the Writing Skills of Intermediate IEP Students: Expectations vs Reality. *Language Teaching Research Quarterly*, 20, 1-18.

- Alsied, S. M., & Pathan, M. M. (2013). The Use of Computer Technology in EFL Classroom: Advantages and implications. *International Journal of English Language & Translation Studies (IJ-ELTS)*, 1(1), 61-71.
- Atmojo, A. E. P., & Nugroho, A. (2020). EFL Classes Must Go Online! Teaching activities and challenges during COVID-19 pandemic in Indonesia. *Register Journal*, 13(1), 49-76.
- Arslan, A. (2008). Implementing a Holistic Teaching in Modern ELT Classes: Using Technology and Integrating Four Skills. *International Journal of Human Sciences*, 5(1), 1-21
- Baylor, A. L. and Ritchie, D. (2002). What Factors Facilitate Teacher Skill, Teacher Morale, and Perceived Student Learning In Technology-Using Classrooms? *Computers & Education*, *39*(4), 395-414.
- Budiarta, I. K., & Santosa, M. H. (2020). TPS-Flipgrid: Transforming EFL Speaking Class in the 21st Century. *English Review: Journal of English Education*, 9(1), 13-20.
- Bueno-Alastuey, M. C., & Nemeth, K. (2020). Quizlet And Podcasts: Effects On Vocabulary Acquisition. *Computer Assisted Language Learning*, 12, 1-30.
- Cakrawati, L. M. (2017). Students' perceptions on the use of online learning platforms in efl classroom. *ELT Tech: Journal of English Language Teaching and Technology*, *I*(1), 22-30.
- Cesare, D. M. D., Kaczorowski, T., & Hashey, A. (2021). A Piece of the (Ed) Puzzle: Using the Edpuzzle Interactive Video Platform to Facilitate Explicit Instruction. *Journal of Special Education Technology*, 36(2), 77-83.
- Chang, C. K., & Hsu, C. K. (2011). A Mobile-Assisted Synchronously Collaborative Translation—Annotation System for English as a Foreign Language (EFL) Reading Comprehension. *Computer Assisted Language Learning*, 24(2), 155-180.
- Chinnery, G. (2006). Merging Technologies Going to The MALL: Mobile Assisted Language Learning. *Language Learning & Technology*, 10(1), 9–16
- Colpitts, B. D., Smith, M. D., & McCurrach, D. P. (2020). Enhancing the digital capacity of EFL programs in the age of COVID-19: the ecological perspective in Japanese higher education. *Interactive Technology and Smart Education*.
- Ellis, R. (1997). The empirical evaluation of language teaching materials. *ELT Journal*, 51(1), 36-42.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher Technology Change: How Knowledge, Confidence, Beliefs, And Culture Intersect. *Journal of Research on Technology in Education*, 42(3), 255-284.
- Evişen, N., Akyılmaz, Ö., & Torun, Y. (2020). A Case Study of University EFL Preparatory Class Students' Attitudes towards Online Learning during Covid-19 in Turkey. *Gaziantep Üniversitesi Eğitim Bilimleri Dergisi*, 4(2), 73-93.
- Fuentes, E. M., & Martínez, J. J. R. (2018). Design of a checklist for evaluating language learning websites. *Porta Linguarum: revista internacional de didáctica de las lenguas extranjeras*, (30), 23-41.
- Gharehblagh, N. M., & Nasri, N. (2020). Developing EFL Elementary Learners' Writing Skills through Mobile-Assisted Language Learning (MALL). *Teaching English with Technology*, 20(1), 104-121.

- Ghasemi, B., Hashemi, M., & Haghighi Bardine, S. (2011). The Capabilities of Computers For Language Learning. *Procedia-Social and Behavioral Sciences*, 58, 28-52. http://dx.doi.org/10.1016/j.sbspro.2011.11.012
- Gömleksiz, M. N. (2004). Use of Education Technology in English Classes. *Turkish Online Journal of Educational Technology-TOJET*, *3*(2), 71-77.
- Gonzalez, D., & Louis, R. St. (2018). Online Learning. In JI. Liontas (Ed.), *The TESOL Encyclopedia of English Language Teaching (1st ed.)*. https://doi.org/10.1002/9781118784235.eelt0423
- Herring, S. C. (2004). Content analysis for new media: Rethinking the paradigm. In *New research for new media: Innovative research methodologies symposium working papers and readings* (Vol. 2, No. 12, pp. 47-66). Minneapolis: University of Minnesota School of Journalism and Mass Communication.
- Hoi, V. N., & Mu, G. M. (2021). Perceived Teacher Support and Students' Acceptance of Mobile-Assisted Language Learning: Evidence from Vietnamese Higher Education Context. *British Journal of Educational Technology*, 52(2), 879-898.
- Kern, R. and Warschauer, M. (2000) Theory And Practice Of Network-Based Language Teaching. In: Warschauer, M. & Kern, R. (eds.) *Network-based language teaching: Concepts and practice(PP.1-19)*. New York: Cambridge University Press
- Kim, D., Ruecker, D., & Kim, D. J. (2019). Mobile Assisted Language Learning Experiences. In Computer-Assisted Language Learning: Concepts, Methodologies, Tools, and Applications (pp. 1059-1077). IGI Global.
- Krashen, S. (1982). *Principles and practice in second language acquisition*. New York: Pergamon Press.
- Lee, K. (2000). English Teachers' Barriers To The Use Of Computer-Assisted Language Learning. *The Internet TESOL Journal*, 6(12), 1-7.
- Lee, L. (2005). Using Web-Based İnstruction To Promote Active Learning: Learners' Perspectives. *CALICO Journal*, 23(1), 139-156.
- Lin, Chin–Hsi, & Warschauer, M. (2015). Online Foreign Language Education: What Are the Proficiency Outcomes? *The Modern Language Journal*, 99(2), 394–397. https://doi.org/10.1111/modl.12234\_1
- Littlewood, W., William, L., & Swan, M. (1981). Communicative language teaching: An introduction. Cambridge University Press.
- Lowenthal, P. R., & Moore, R. L. (2020). Exploring Student Perceptions of Flipgrid in Online Courses. *Online Learning*, 24(4), 28-41.
- Macho, S. (2005). Differences Among Standardized Test Scores Due to Factors of Internet Access at Home and Family Affluence. West Virginia University: United States.
- Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners. *Arab World English Journal (AWEJ)*, 11(4).
- McMillan, S. J. (2000). The microscope and the moving target: The challenge of applying content analysis to the World Wide Web. *Journalism and Mass Communication Quarterly*, 77(1): 80-98.
- Milleken, J., Barnes, L. P. (2002). Teaching and technology in higher education: student perceptions and personal reflections. *Computers & Education*, 39(3), 223-235
- Nadeem, N. H. (2021). Students' Perceptions About the Impact of Using Padlet on Class Engagement: An Exploratory Case Study. In *Research Anthology on Developing Effective Online Learning Courses (pp. 1919-1939)*. IGI Global.

- Norbrook, H., & Scott, P. (2003). Motivation In Mobile Modern Foreign Language Learning. In J. Attewell, G. D. Bormida, M. Sharples, & C. Savill-Smith (Eds.), *MLEARN: Learning with mobile devices (pp. 50–51)*. London: Learning and Skills Development Agency.
- Platzer, H. (2020). The Role of Quizlet in Vocabulary Acquisition. *Electronic Journal of Foreign Language Teaching*, 17(2), 421-438.
- Pop, A. (2010). The Impact Of The New Technologies İn Foreign Language Instruction Our Experience. *Procedia-Social and Behavioral Sciences*, 2(2), 1185-1189.
- Prawati, M. T., & Novitasari, B. T.(2017). EDpuzzle: Application To Create Video With Task. Elt In Asia In The Digital Era: Global Citizenship and Identity, In Proceedings of the 15th Asia TEFL and 64th TEFLIN International Conference 2017, (pp. 519-525).
- Prensky, M. (2001). Digital Natives, Digital Immigrants Part 1. **On The Horizon, 9**(5), 1-6.
- Putri, N. S. (2019). Kahoot Application in English Language Teaching (ELT) Context: An Alternative Learning Strategy. ELSYA: *Journal of English Language Studies*, 1(1), 11-15.
- Rivera, S. L. M. (2021). Using Technological Tools in a K-2 Virtual ESL Classroom. Unpublished Doctoral dissertation. Greensboro College.
- Schneckenberg, D. (2010). Overcoming Barriers For Elearning in Universities—Portfolio Models For Ecompetence Development Of Faculty. *British Journal of Educational Technology*, 41(6), 979-991.
- Sharma, S., & Bumb, A. (2021). The Challenges Faced in Technology-Driven Classes During COVID-19. *International Journal of Distance Education Technologies* (*IJDET*), 19(1), 17-39.
- Sun, S. Y. H. (2014). Learner Perspectives on Fully Online Language Learning. **Distance Education**, **35**(1), 18–42. https://doi.org/10.1080/01587919.2014.891428
- Uzun, L. (2009). An evaluative checklist for computer games used for foreign language vocabulary learning and practice: Vocaword sample. *Novitas-Royal*, *3*(1), 45-59.
- Viberg, O., Wasson, B., & Kukulska-Hulme, A. (2020). Mobile-assisted language learning through learning analytics for self-regulated learning (MALLAS): A conceptual framework. *Australasian Journal of Educational Technology*, *36*(6), 34-52.
- Young, R. (1980). *Modular course design in ELT document: Projects in materials designs*. Hemel Hempstead: MacMillan/The British Council
- Yüksel, H. G., Mercanoğlu, H. G., & Yılmaz, M. B. (2020). Digital Flashcards Vs. Wordlists For Learning Technical Vocabulary. *Computer Assisted Language Learning*, 1-17. <a href="https://doi.org/10.1080/09588221.2020.1854312">https://doi.org/10.1080/09588221.2020.1854312</a>
- Zhi, Q., & Su, M. (2015). Enhance Collaborative Learning by Visualizing Process of Knowledge Building with Padlet. In 2015 international conference of educational innovation through technology (eitt) (pp. 221-225). IEEE.