# THE EFFECTS OF ONLINE EDUCATION ON AUTONOMY, VOCABULARY DEVELOPMENT AND PERCEPTIONS AMONG ENGLISH YOUNG LEARNERS

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# THE IMPACTS OF ONLINE EDUCATION ON YOUNG LEARNER'S AUTONOMY, VOCABULARY DEVELOPMENT AND PERCEPTIONS AMONG ENGLISH YOUNG LEARNERS

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**ABSTRACT**

THE IMPACTS OF ONLINE EDUCATION ON AUTONOMY, VOCABULARY DEVELOPMENT AND PERCEPTIONS AMONG ENGLISH YOUNG LEARNERS

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The aim of this study was to investigate the effects of online education using Google Meet on the vocabulary development and autonomy of Young Learners (YLs) of English enrolled in a private school (3rd year, primary). The study also explored the perceptions of young learners and their teachers about learning English via Google Meet. The participants were 35 young learners of English (age 8-9). The study adopted a mixed methods design, with quantitative data collected via pre- and post-tests of vocabulary knowledge, learner perception questionnaires as well as learner autonomy questionnaires. The qualitative data were collected through reflective journals kept by the teacher-researcher. The data was analyzed through SPSS and content analysis. A statistical significance in vocabulary knowledge test and learner perception questionnaire was obtained as a result of online education implementation. However, there was no significant difference was found in autonomy level of young learners as a consequence of online education. The findings obtained revealed that online education via Google Meet contributed to young learners' vocabulary development. Moreover, young learners' perceptions towards online education decreased considerably in terms of interest/enjoyment, willingness, participation, perceived competence and usefulness. Finally, qualitative data results showed that the teacher encountered several challenges and found some solutions to those as it was indicated in the reflection journals. The results of the present study provide pedagogical suggestions and implications for using online education via Google Meet in EFL classrooms.

**Keywords:** Online Education, Young Learners, Vocabulary Knowledge, Learner Autonomy, Learner Perceptions, Online Web Tools

# ÖZ

ÇEVRİMİÇİ EĞİTİMİN GENÇ ÖĞRENCİLERİN ÖZERKLİKLERİ, KELİME BİLGİSİ VE ALGILARI ÜZERİNDEKİ ETKİLERİ

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Bu çalışmanın amacı, Google Meet aracılığıyla yapılan çevrim içi eğitimin yabancı dil olarak İngilizce eğitimi alan 3. sınıf öğrencilerinin kelime bilgisi, öğrenme özerklik düzeyleri ve algıları üzerindeki etkileri araştırmaktı. Çalışma aynı zamanda 3. Sınıf öğrencilerinin ve öğretmenlerinin çevrim içi eğitime yönelik algılarını da inceledi. Araştırmanın katılımcıları uygun örnekleme yöntemiyle belirlenmiş olup (N=30), öğrencilerin yaş düzeyleri 8-9'dur. Çalışmada, kelime bilgisinin ön ve son testleri, öğrenci algı anketleri yoluyla toplanan nicel verilerle karma araştırma yöntemi benimsenmiştir. Nitel veriler öğretmen-araştırmacı tarafından haftalık olarak tutulan öğretmen yazılı geribildirimleri aracılığıyla toplanmıştır. Veriler SPSS ve içerik analizi yöntemiyle çözümlenmiştir. Çevrimiçi eğitim uygulaması sonucunda kelime bilgisi testi ve öğrenci algı anketinde istatistiksel olarak anlamlı bir fark elde edilmiştir. Ancak, genç öğrencilerin öğrenme özerklik düzeylerinde anlamlı bir fark bulunmamıştır. Sonuç olarak, çevrimiçi eğitimin öğrencilerin kelime bilgisine katkı sağladığı söylenebilir. Ayrıca genç öğrencilerin çevrimiçi eğitime yönelik algıları, ilgi/eğlence, isteklilik, katılım, algılanan yeterlilik ve kullanışlılık açısından önemli ölçüde azalmıştır. Son olarak, nitel veri sonuçları öğretmenin yazılı geribildirimlerinde

belirttiği gibi çevrimiçi eğitim sürecince çeşitli sorunlarla karşılaştığını ve bu sorunlara bazı çözümler bulduğunu ortaya koymuştur. Bu çalışmanın sonuçları, yabancı dil olarak İngilizce eğitimi veren sınıflarda Google Meet aracılığıyla çevrimiçi eğitimin kullanılması için pedagojik öneriler ve çıkarımlar sunmaktadır.

**Anahtar Kelimeler:** Çevrimiçi Eğitim, Genç Öğrenciler, Kelime Bilgisi, Öğrenci Özerkliği, Öğrenci Algıları, Çevrimiçi Web Araçları

*To My Beloved Father*

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## TABLE OF CONTENTS


ABSTRACT ...... iii
ÖZ ...... vi
ACKNOWLEDGEMENTS ...... ix
TABLE OF CONTENTS ...... x
LIST OF TABLES ...... xiii
LIST OF FIGURES ...... xiv
LIST OF ABBREVIATIONS ...... xv
Chapter 1: Introduction ...... 1
1.1 Theoretical Overview ...... 1
1.2 Statement of the Problem ...... 4
1.3 Purpose of the Study ...... 5
1.4 Research Questions ...... 5
1.5 Significance of the Study ...... 5
1.6 Definitions ...... 6
Chapter 2: Literature Review ...... 7
2.1 Online Education ...... 7
2.1.1 The Efficacy of Online Education in Language Learning.. ...... 8
2.1.2 Web 2.0 Tools. ...... 11
2.1.2.1 Using web 2.0 tools in language education. ...... 11
2.1.2.2 Google Meet as a Web 2.0 Tool. ...... 13
2.2 Vocabulary Learning ...... 14
2.2.1 Explicit and Implicit Vocabulary Learning. ...... 16
2.3 Learner Autonomy ...... 18
2.3.1 Learner Autonomy in Foreign Language Education. ...... 19
2.3.2 Learner Autonomy and Technology-Integrated Education. ...... 20
Chapter 3: Methodology ...... 24
3.1 Research Design ...... 24
3.2 Setting and Target Population ...... 26
3.3 Procedures ...... 27
3.3.1 Data collection instruments. ...... 27
3.3.1.1 Autonomy learner questionnaire (ALQ). ...... 28
3.3.1.2 Learner perception questionnaire (LPQ). ...... 29

3.3.1.3 Vocabulary knowledge test (VKT). .................................................. 30
3.3.1.4 Reliability and validity – the pilot studies. ........................................ 31
3.3.1.5 Reflective journals. ............................................................................ 32
3.3.2 Data Collection Procedures. ........................................................................ 33
3.3.2.1 Types of sampling. ............................................................................... 34
3.3.3 Implementation. ........................................................................................... 34
3.3.3.1 Week 1. ............................................................................................... 34
3.3.3.2 Week 2. ............................................................................................... 34
3.3.3.3 Week 3. ............................................................................................... 35
3.3.3.4 Week 4. ............................................................................................... 35
3.3.3.5 Week 5. ............................................................................................... 36
3.3.3.6 Week 6.. .............................................................................................. 36
3.3.3.7 Week 7. ............................................................................................... 36
3.4 Data Analysis ..................................................................................................... 36
3.4.1 Quantitative data analysis. ........................................................................... 36
3.4.2 Qualitative data analysis. .............................................................................. 39
3.4.3 Triangulation of quantitative and qualitative data. ..................................... 39
3.5 Limitations ......................................................................................................... 39
Chapter 4: Findings ................................................................................................... 41
4.1 Overview ............................................................................................................ 41
4.2 Findings of Quantitative Data ............................................................................ 41
4.2.1 Findings of the 1st RQ:. ............................................................................... 41
4.2.2 Findings of the 2nd RQ: ............................................................................... 42
4.2.2 Findings of the 3rd RQ: ................................................................................ 45
4.2 Findings of Qualitative Findings ........................................................................ 48
4.2.1 Findings of the 4th RQ: ................................................................................ 48
4.2.1.1 Perceptions about lesson activities, classroom management, low participation and technical problems faced. .................................................. 48
4.2.1.2 Perceptions about individual meetings, being physically active, parent involvement and using Class Dojo Tool. ....................................................... 51
Chapter 5: Discussion and Conclusion ..................................................................... 55
5.1 Discussion of Findings for Research Questions ................................................. 55
5.1.1 Discussion of the findings for the RQ1: ..................................................... 55
5.1.2 Discussion of the findings for the RQ2: ..................................................... 56
5.1.3 Discussion of the findings for the RQ3: ..................................................... 58

5.1.4 Discussion of the findings for the RQ4: .................................................... 59
5.2 Conclusion.......................................................................................... 61
5.3 Pedagogical Implications and Recommendations for Further Research.......... 62
REFERENCES.......................................................................................... 63
APPENDICES .......................................................... **Error! Bookmark not defined.**
A. Autonomy Learner Questionnaire ..................... **Error! Bookmark not defined.**
B. Learner Perception Questionnaire ..................... **Error! Bookmark not defined.**
C. Vocabulary Knowledge Test ............................. **Error! Bookmark not defined.**
D. Teacher-Researcher Reflective Journal ............ **Error! Bookmark not defined.**
E. Relevant Materials Done During the Implementation ...... **Error! Bookmark not defined.**

**LIST OF TABLES**

TABLES

Table 1 Dimensions of Knowing a Word (Nation 2001, p. 27) ..... 15
Table 2 Distribution of Participants Regarding Their Gender ..... 26
Table 3 Five Dimensions in the Autonomy Learner Questionnaire ..... 29
Table 4 Five Sub-factors in the Learner Perception Questionnaire ..... 30
Table 5 Cronbach’s Alpha Coefficient of ALQ ..... 32
Table 6 Cronbach’s Alpha Coefficient of LPQ ..... 32
Table 7 Outline of Data Collection Procedure ..... 33
Table 8 Normality Test for Pre and Post Test of ALQ ..... 37
Table 9 Normality Test for Pre and Post Test of LPQ ..... 37
Table 10 Normality Test for Pre and Post VKT ..... 37
Table 11 Overview of Research Questions and Corresponding Procedures ..... 37
Table 12 Paired Sample T-test Scores of Vocabulary Knowledge Test ..... 41
Table 13 Paired Samples t-test Results about Self-direction ..... 42
Table 14 Paired Samples t-test about Language Activities ..... 42
Table 15 Paired Samples t-test about Objectives/Evaluation ..... 43
Table 16 Paired Samples t-test about Independent ..... 44
Table 17 Paired Samples t-test about Importance of the Teacher ..... 44
Table 18 Paired Samples t-test about Interest/Enjoyment ..... 45
Table 19 Paired Samples t-test Results about Willingness ..... 45
Table 20 Paired Samples t-test about Participation ..... 46
Table 21 Paired Samples t-test about Perceived Competence ..... 47
Table 22 Paired Samples t-test about Useful ..... 47
Table 23 Frequency Distribution of Codes sorted by Case- Reflective Journals ..... 48

## LIST OF FIGURES

FIGURES

Figure 1 Traditional Versus Virtual Learning (McFadzean, 2011). ............................ 9
Figure 2 An Overview of Data Collection Instruments ............................................ 28

## LIST OF ABBREVIATIONS

| | |
|---|---|
| ALQ | Autonomy Learner Questionnaire |
| EFL | English as a Foreign Language |
| LPQ | Learner Perception Questionnaire |
| VKT | Vocabulary Knowledge Test |
| YL | Young Learner |

# Chapter 1

# Introduction

In this chapter, the overview of the study which aims to investigate how online education affects learner autonomy, vocabulary development and attitudes of 3rd grade students at a private primary school is introduced. The chapter also presents theoretical overview of online education mostly based on some distance education studies carried out so far. Moreover, statement of the problem, the purpose of the study, and research questions were presented in the following subtitles. Finally, definitions of the key words were also defined at the end of the section.

## 1.1 Theoretical Overview

Online education has become a compulsive education type because of COVID19 pandemic which has been affecting people without any exception for nationality, gender, income and education lasting almost a year all around the world (Schleicher 2020). In a little while, technology and internet became the most important guide for online education. Computers and internet have become more necessary and important at educational institutions and universities day by day. Online education was not a common education type in Turkey especially for young learners, whereas some universities were holding some virtual and hybrid classes before this incident which has affected all the countries.

It is clear that online education has progressed differently based on the countries' technological levels, and it has not developed evenly in all countries when looking at the history of online education. According to Picciano (2021), online education has occurred in five waves in the United States. The first wave began with the advent of internet technology between 1993 and 1999. Institutions used to deliver education via television and radio before the internet's emergence. The second wave lasted for the first decade of the 2000s, which saw the development of web 2.0 technology. Integrative media such as photographs and videos, as well as social media such as YouTube, blogs, Facebook, and wikis have invaded our lives thanks to web 2.0. Blended learning became more and more popular, and its pedagogical implications considerably grew in time. Between 2008 and 2013, the third wave began with MOOCs (Massive Open Online Courses), which delivered online education to thousands of students. The fourth wave, which occurred in 2014-2020, takes a more sophisticated and comprehensive approach to pedagogy and blended learning since it combines the second wave's educational benefits with the third wave's access/cost opportunities.

Nevertheless, nobody predicted a pandemic in 2020. This sudden incident has caused people freely or involuntarily switch to online education which can be called as fifth wave. Because of the risks posed by the Covid19 pandemic disease, institutions all around the world have begun to use online education. This is why academic study on online education is a prominent topic in the world of education (Zhou, 2020). Furthermore, students have begun a rapid adaption process.

Computers and internet were started to be used in Turkish education system over twenty years ago (Akkoyunlu, 2002). To increase the quality of education, Ministry of National Education revised their education curriculum which may also help Turkey to join European Union. In 2010, FATIH (Increasing Opportunities and Improving Technology Movement) Project in education aiming to use some IT (Information Technology) strategies effectively started to support vision strategy prepared by TUBITAK in Turkey. FATIH Project in education is defined by the Ministry of National Education (MoNE) as enabling equal opportunities in education and improving technology in the schools for the efficient usage of Information, Communication, and Technology (ICT) tools in the learning-teaching processes (Bahar et al., 2015). After this project, technology and internet have played more essential roles in Turkey's education system both for learners and teachers. Integrating technology and internet into education has changed techniques, methods and strategies of education and learning processes in educational organizations. Communication between students and lecturers has been facilitated by the integration of technology into the educational environment.

The growth of online education in Turkey was sparked by the rise in population and demand for education, and many online learning apps have since it entered our lives (Bülbül et al., 2016). Furthermore, according to Çelen et al. (2011), various variables should be considered for the success of an online education program, such as students' computer abilities and computer-usage autonomy, as well as the responsibility of autonomous learning. According to the same study, other issues include internet infrastructure, a lack of institutional incentives, and lack of technical talent of people. Overall, they recommend that online education should be made available to users while taking into account factors such as student profile, and students' expectations of the students and their teachers as well into account.

Many research on autonomy in educational contexts from various perspectives in relation to technological improvements may be found in the related literature (Chinnery, 2014: Chapelle, 2007; Tsai, 2019; Gruba & Chau-Nguyen, 2019; Daley, Watkins, Wall-Williams, Courtenay, Davis & Dymock, 2001). As a result, autonomy and technology use in language learning classrooms have been closely scrutinized in the area (Smith, 2005; Lee, 2011; Levy, 2002; 3 Antoniou, 2012; Darasawang, 2007; Jitpaisarnwattana, 2018; Prince, 2011; Monteverde & Gaona, 2011). Learner autonomy necessitates a self-directed space in which learners actively employ for their own learning, as it is a requirement for accepting responsibility in their learning experience. As Lee at al. (2005) stated that students would be led to develop their confidence and competence by the help of available technology to take personal responsibility for their learning (p.23). Autonomous learners take control and responsibilities of their own learning fostered by technology. Therefore, autonomy involves abilities and attitudes that people possess and can develop to various degrees. Learners may benefit from the flexibility of online education depending on when and where they want to study and participate the lessons. Moreover, allowing students to work on their own at their own pace, computers and the Internet encourage learners to take increasing responsibility for their own learning both inside and outside the classroom (Mutlu 2008). These studies also show that incorporating technology into the classroom helps students learn basic language abilities such as reading, writing, listening, and speaking more effectively. A true mastery of word knowledge is one of the essential conditions that learners must meet in order to advance their linguistic skills further. Vocabulary learning is crucial for language proficiency (Schmitt, 2008). Although the need for vocabulary learning is generally agreed upon, the best way to learn vocabulary is not clear. Vocabulary learning strategies have been extensively researched in the field of vocabulary learning, and the importance of using these strategies has been demonstrated in a number of recent studies (Connor, Day, Zargar, Wood, Taylor, Jones & Hwang 2019; Suliman, 2019; Chai & Welz, 2019; Gibb & Li, 2019; Griffiths, 2019; Lin & Lin, 2019; Tsai, 2019). In this regard, the more learners are exposed to the language through various channels, the more comprehensible input they accumulate in order to develop the abilities (Krashen, 1982). Similarly, online education has become crucial in the sphere of educational entities spanning from the learner to the counselor, from the program developer to the administrator, providing an enormous number of options to fulfill the objective of language acquisition. Recent pandemic breakthroughs have aided us in comprehending how language education may be multidimensional, with different educational options that result in more effective teaching and learning outcomes. As a result, this study aims to produce a body of knowledge about the impact of online education on learner autonomy, vocabulary development of YLs and their perceptions towards online education. Therefore, it is crucial to invest in research that deals with increasing the effectiveness of online education through fostering vocabulary knowledge and learner autonomy.

### 1.2 Statement of the Problem

Students and teachers were more exposed to online teaching and learning more than ever to keep up classroom activities and to meet their learning/teaching objectives because of COVID19 pandemic in recent years. When it comes to technology advancements, one can assume that online education will be the future of education, but no one could have predicted that it would be so fast. This unanticipated development has prompted many studies to investigate the effects, needs, advantages and disadvantages, and accessibility of online education. Online education has been investigated under different variables at different grade levels so far; however, little contribution was made including how young language learners develop their language learning in terms of vocabulary, their perceptions towards online education without having face to face meetings and also whether learners can take the control of their own learning during online lessons (Akın 2015; Işık 2009). Findings of the studies in Turkey researching autonomy levels of learners reveal that most of EFL learners are not sufficiently autonomous while learning a language (Demirtaş, 2010; Gür, 2018). Regarding of the existing studies on the relevant topic, very few researches conducted on EFL context with young language learners which is why the present study is worth to carrying out (Akın 2015; Işık 2009). Therefore, this study aims to investigate the impacts of online education on YL’s vocabulary development and to find out whether it has any impacts on their autonomy level. Moreover, the present study will aid in the understanding YLs' and their teacher's perceptions towards online education, where students are physically separated, but should be intellectually connected.

### 1.3 Purpose of the Study

The purpose of the study is to find out if online education has any effect on their autonomy level of YLs before and after the implementation of online education. The study also attempts to examine the impact of online education on their language learning in terms of vocabulary development of 3rd grade YLs of English of a private primary school in Turkey. Finally, it also aims to explore the perceptions of YLs and their teacher's perceptions towards learning and teaching English online in 3rd grade English classrooms.

### 1.4 Research Questions

The present study addresses the following research questions:

1) Does Google Meet as a Web 2.0 tool have any effect on the vocabulary development of Young Learners (YLs) of English (3rd grade, primary level)?

2) Does using Google Meet have any effect on the autonomy level of YLs?

3) What are the perceptions of YLs about learning vocabulary online via Google Meet in 3rd grade English classes?

4) What are the perceptions of the teachers about teaching vocabulary to YLs via Google Meet?

### 1.5 Significance of the Study

Teaching a foreign language to young learners requires more self-devotion and exertion to draw their attention and keeping them on topic during the classes (Nunan, 2010). This situation turns into a different perspective when you teach them online all day long in front of a screen. According to Smith and Kolosick (1996), the role of the learner changes from passive to active thanks to integrating technological tools into language teaching in the classrooms. Teaching a language with computers and the Internet has attracted many researchers' attention in recent years (Işık, 2009). Therefore, many studies have been conducted to find out whether computers and the Internet promote language learning (Demir, 2016; Işık, 2009; Zağlı, 2021) However, few studies focused on finding out whether online education has effect on developing L2 vocabulary of learners (McFadzean, 2011; Ramsey, 2003; Warschauer 1998).

Based on these overviews, this thesis aims to provide deeper understanding about the vocabulary development of YLs in online English classes. The study also attempts to find out the effects of online vocabulary learning on the autonomy of YLs and explore the perceptions of YLs and their teacher about learning and teaching vocabulary in online English classes through mixed method design including qualitative and quantitative research methods.

**1.6 Definitions**

EFL (English as a Foreign Language): Learning English in a setting where English is not spoken as an official language but primarily learnt in the classroom (Ellis, 1992, p. 12).

Learner Autonomy (LA): the capability of taking over the control of one's own learning (Holec, 1981).

Online Education (OE): the course is not taught in a classroom face-to-face but through some substitute mode that can be associated with classroom teaching (Kurbel 2001).

Young Learners (YLs): children who are studying at pre-school or in the first couple of years of primary education (Nunan, 2010, p.6).

Web 2.0 Tools: a dialogue which leads to an engaging class discussion or two-way communication (Mcleod and Vasinda, 2008, p. 260).

Google Meet: a video-communication service developed by Google (Johnston, 2019).

# Chapter 2

# Literature Review

## 2.1 Online Education

The emerging threat of COVID-19 epidemic brought about the closing of elementary schools, most of the universities and colleges within a short interval of weeks in March of 2020 around the world. As a result, students were given a couple of weeks as their Spring 2020 semester and informed that they would be moved to Distance Learning (online education) with no more face-to-face classes were held as compulsory education since then (Unger & Merian, 2020).

During the last few decades educators have often complained about being the only source of information in the classroom as it causes learners to lose their focus and motivation (Tunçok 2010). Several investigations indicated that learner's active participation in learning process improves learning (Benek-Rivera & Matthews 2004; Sarason & Banbury 2004, Işık 2009). As a result, many learner-centered developments have been applied to foreign language teaching to increase success. Integrating technology into language learning which is called modern classroom education is one of the improvements whose advantages cannot be denied. In other words, it is one of the main educational methodologies where the classrooms are equipped with whiteboards, projectors or auditory display equipment and smart boards; on the contrary, teachers use books and blackboards in traditional classrooms (Basilaia & Kvavadze, 2020).

According to Basilaia Kvavadze (2020), online education which uses the internet, software and audio and text communication is an emerging way of developing and acquiring the knowledge from distant locations. Online education has rapidly grown and gained extreme reputation over the past several years thanks to the integration of technology into education. Electronic learning and virtual learning are the terms which can be used for online education which means that the course is not taught in a classroom face-to-face, but through some substitute mode that can be associated with classroom teaching (Kurbel, 2001). Clark and Mayor (2016) defined e-learning as information distributed on a technological device aiming to promote learning (p. 8). Definition of e-learning has some elements concerning ‘what, how and why’ of e-learning as Clark and Mayor (2016, p 8-9) stated in their book. The what element refers to e-learning courses include both content (that is, information) and instructional methods (that is, techniques) that help people learn the content; how refers to e-learning courses are delivered via digital devices using the words in the forms of spoken printed text and pictures such as illustrations, photos, and animation or video and the final one why refers to organizational or individual goals of e-learning (p. 9). Virtual learning, e-learning, and online learning are all terms used to describe online education. In this thesis, it shall simply be referred to as "online education."

Based on various educational implementations, online education can be analyzed under some subtopics as knowledgebase, online support, asynchronous training, synchronous training, hybrid training (Basilaia & Kvavadze, 2020). Knowledgebase lessons are carried out by publishing on the website which have general instructions of learning that a student has to follow, without any support from a teacher or a tutor. Similarly, in online support implementation, learners are supported through discussion boards or web forums on the topics available. Furthermore, content is provided constantly in asynchronous training where the lessons are not taught in real time, so teachers assign learners and provide support for them through some communication platforms like e-mail. On the other hand, synchronous training where participants can communicate directly with the teacher and other group members through video conferencing is done in real-time with an instructor virtually through video conferencing which is the implementation of the present study. Lastly, hybrid training is defined as a combination of online and face to face classes.

In brief, language learners have required more creative and practical ways not to fall behind the language education program while learning because of changing objectives of education system and recent pandemic situation, which has led to the development of online education (OE). In the following section, the effectiveness of online education in language education is provided and followed by Web 2.0 tools for language classrooms and Google Meet.

**2.1.1 The efficacy of online education in language learning.** Technological improvements provide teachers with many attractive and useful tools that can be used to contribute to the active learning process. The practicality of these tools enables teachers to have more knowledge of the advantages and efficacy of using technology in the classroom (Kaminski, 2005).

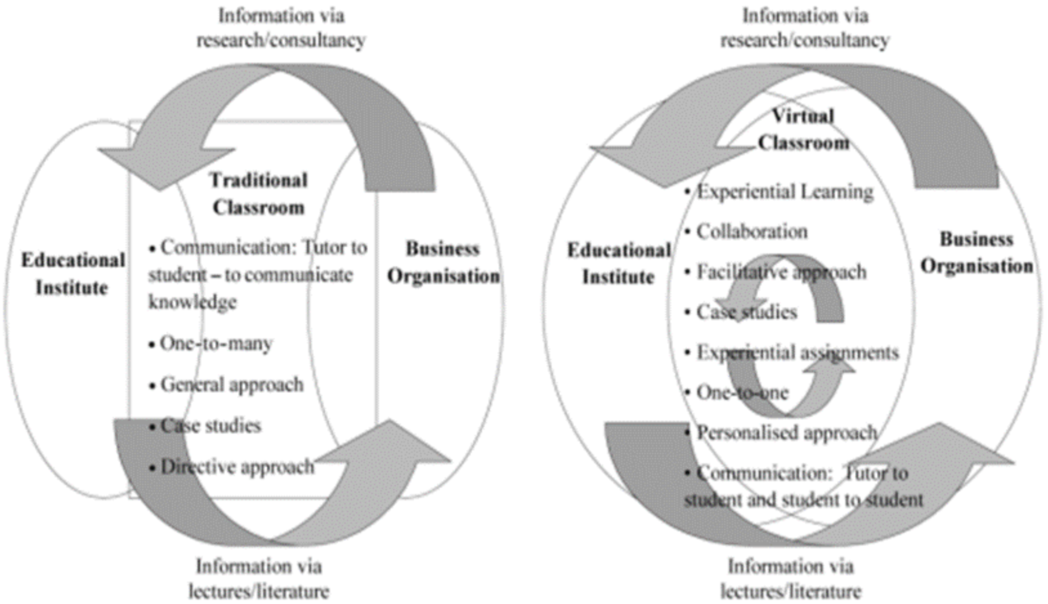


*Figure 1* Traditional versus virtual learning (McFadzean, 2011).

As presented in Figure 1, in a virtual learning classroom, there is a mutual interaction between learner to learner and tutor to learner facilitating to transfer information; on the other hand, in a traditional classroom, one way of interaction occurs between tutor and learner which limits collaboration and experimental learning in learning process. Additionally, web-based education tools provide many opportunities to students and teachers to communicate among each other in a foreign language through some tools in platforms such as e-mails and chats which increasing learners' motivation and participation to language activities and class debates.

Ramsey (2003) supported that virtual learning is playing a crucial role in promoting more active, mutual and communicative teacher-student relations and more supportive and helpful student-student relations (p. 31). Thus, virtual learning environment promotes an increase in two-ways interaction among learners and between learner and teacher. Several studies indicate that web-based distance learning and online education promote language learning and learners have positive perceptions towards online education (Işık, 2009; Koohang, and Durante, 2003).

Furthermore, as an advantage of online education, students may have an access to attend online classes from their houses by logging into a system which let them participate lessons even if they don't feel well and to submit their assignments and projects. Dillenbourg (2002) defined learners in online education as “not only active, but also actors: they co-construct the virtual space.”. Online learning environments contribute to enhance various classroom activities instead of being limited to distance education.

In addition, technology integrated language classrooms give a chance to learners who are isolated from the rest of the class and have difficulties to communicate in front of people to feel much more relaxed during online classes (Warschauer, 1998). Joiner (2004) stated that computer assisted language learning provides more equal participation than face-to-face interaction among students. Moreover, many new technological improvements and web based online tools have positive impacts on learners’ active involvement in the language learning process when e-learning classroom offers engaging and interactive learning experiences to students (Watkins, 2005).

E-learning activities can turn rather dull online experiences into entertaining, interactive, meaningful, and valuable learning experiences for students. Generating the creative ideas for online activities does not require long hours of meditation. By using adaptations of activities from the traditional classroom along with imaginative ideas that take advantage of the unique online technologies, you can create e-learning courses that will excite and engage students while accomplishing important course objectives. As a result of learners’ active participation in language learning process, learner centered classroom atmosphere is created by incorporating technology into education by enabling students to become more autonomous learners (Kalaycı, 2014). Russel and Sorge (1990) strongly suggested that integration of technology and language education allows for more student-centered classrooms and enables students to make sense of their learning process.

Apart from its benefits, online education comprises some disadvantages and limitations (Demir, 2016; Toporski, & Foley, 2004; Pan et al., 2003). A study concluded that blended e-learning was less interesting and fascinating for the participants when it was not included any speaking activities which can lead the students to create their own discussions in online classes and to increase their self-confidence. To get over the negative perceptions and difficulties of learners, online classes should be designed according to needs and interests of the learners (Demir, 2016). In addition, Toporski and Foley (2004) emphasized that learners can contextualize problems by using real life experiences to make meaningful connections in online instruction. Therefore, authenticity makes learners shape the content easily with computer assisted instruction. Teachers are supposed to put emphasize on the importance of online classes which are equal to face-to-face classes by developing challenging activities in accordance with each learner's needs and interests that make learners to realize the effectiveness of classes (Pan et al., 2003).

Moreover, there are some difficulties that EFL learners and teachers have experienced in technology integrated language classes concluded in some studies (Akın, 2015; Çağıltay, 2001). First of all, most learners and teachers do not have enough access to internet and technological tools due to their socio-economic backgrounds. Unavailability of technological devices and poor school facilities affect the quality of language education in a negative manner. In addition to poor facilities, teachers are not competent enough to use technology and internet since they are not well educated in technology by their institutions. Busy schedule of teachers and learners which is also another drawback of online education causes them to feel discouraged and demotivated to cover overload work through technology (Akın, 2015; Çağıltay, 2001).

To conclude, despite limitations and disadvantages of online education, it brings more contemporary perspective to language teaching thanks to the facilities provided in the virtual environment while the traditional method of education may not keep up with the technological improvements which are unavoidable for language learners recently (Sokolik, 2014). In addition, virtual classrooms increase interaction among learners and provide rich content to language learning. As a result, it can be concluded that online education can remarkably contribute to learners' language learning improvement with lots of opportunities it offers.

**2.1.2 Web 2.0 tools.** The major aspects of Web 2.0 tools, their use in language education, and Google Meet as a Web 2.0 tool are presented in this part.

***2.1.2.1 Using web 2.0 tools in language education.*** Language teaching has undergone a rapid shift as a result of technological advancements. Different instructional tools have been developed and utilized in the classrooms as a result of the integration of technology and the internet into language learning, offering teachers and learners with a variety of facilities and skills (Anderson, 2007; Basal & Aytan, 2014; Gilmor, 2007; Mcleod & Vasinda, 2008). To give detailed insight into the importance of incorporating technology into language education, the development of those tools is examined first.

Web 2.0 tools are the most frequently used equipment among the tools which are used to integrate technology into language learning as they provide learners to take active roles in the lessons (Horzum, 2007). Aşıksoy (2018) defined Web 1.0 technology as one-way of communication which was in progress to change because of the requirement of interaction in educational technologies. Web 2.0 technology enables users and owners to create, edit, and cooperate with others while in Web 1.0, only the owners are allowed to cooperate and make changes in the content, not users (Handsfield et al., 2009).

Mcleod and Vasinda (2008) defined Web l.0 "as one-way communication, a lecture or a monologue" unlike they defined Web 2.0 as "a dialogue which leads to an engaging class discussion or two-way communication" (p. 260). There is a main difference between Web 1.0 and Web 2.0, which is that the former does not let users to contribute by presenting the information, while the latter enables users to be involved actively with the chance of creating, editing and sharing the content (p. 261). Similarly, Kamel Boulos and Wheeler (2007) identified Web 2.0 as a ‘Social Web’ since it is an easy way of creating and publishing the content, which creates more democratic use thanks to the shared ideas of users. In other words, Web 2.0 differs from Web 1.0 in assigning roles to their users as Web 2.0 tools which allow learners to edit the information and cooperate with others to generate the context into a new one are more student-centered and communicative than Web 1.0 tools which are formed traditionally (Gilmor, 2007). That is, using the web is transformed from “read-only” into “read-write” mode with the development of Web 2.0 tools (Gillmor, 2007). Blogs, social networking sites, wikis, podcasts applications are characteristic examples of Web 2.0 tools (McLoughlin and Lee, 2007).

With the drastic time of change, today's learners are not the same as those in the past because they are no longer the students that we wanted to instruct in the educational system (Prensky, 2001). They are current digital natives who have already begun to actively use Web 2.0 tools in their daily lives since they were born. As a result, in language education, traditional approaches that identify the notions of what, how, and when to learn for pupils ahead of time should be avoided. Learners must establish their own knowledge and track their progress, which helps them build a sense of duty and consciousness. Therefore, Web 2.0 tools should be used in language learning and teaching because characteristics like exchanging and posting ideas, opinions, and knowledge with others are a great resource for digital natives who need an interactive learning environment. (Yuen et al., 2011). Web 2.0 tools in language learning enhance the learning environment by improving the quality of learner-learner and learner-teacher relations (Albayrak, and Kıyıcı, 2017). By fostering learner-centered education, these tools shift the roles of teachers and students. Web 2.0 tools allow students to communicate and study outside of the classroom by allowing them to represent their ideas or wishes in any way they want (Lee, and McLoughlin, 2007). As a result, they become more flexible, creative, and imaginative learners with increased motivation. (Cochrane, 2014; Rahimi et al., 2015). Warschauer and Liaw (2010) stated that Web 2.0 tools provide learners with a relevant context to utilize English through mentoring, connecting, and realistic communication opportunities, while also fulfilling the needs of students with diverse learning styles.

Furthermore, Web 2.0 tools help EFL students improve their vocabulary knowledge (Wang, and Vasquez, 2012). Similarly, Wang and Vasquez (2012) concluded that with the help of Web 2.0 21 tools, students were able to employ vocabulary styles more easily. Furthermore, Sharma and Unger (2016) discovered that Web 2.0 technologies have the potential to support long-term vocabulary learning and retention in meaningful areas. Finally, Omer (2015) found that students' lexical knowledge increased as a result of using Web 2.0 technologies, with gains in fluency and appropriate word choice.

***2.1.2.2 Google Meet as a Web 2.0 Tool.*** Google Meet is a very useful and practical platform for e-learning which is preferred by educators because it helps teachers to manage course content integrated with the system easily. Google formally launched Meet in March 2017; however, after COVID-19 Pandemic, the use of Meet has increased among different institutions (Lardinois 2020). It is very popular among educators as a service to be used to create online education environment to conduct the classes fully online. It allows teachers screen-sharing to present the materials used during the classes. Google Meet works with the integration of Google Contacts and Google Calendar to send out a reminder to teachers and students before the class starts. Users can record their sessions with the permission of participants. Moreover, Google Meet which is easy and quick to use supports active involvement, interaction and collaboration among users. Learners also have access to chat before-during-after the classes to socialize with their friends and teachers. In this study, Google Meet was used due to practical and supportive facilities, and also easy accessibility offered by the platform.

## 2.2 Vocabulary Learning

Language learning does not only consist of word knowledge; however, vocabulary is a crucial form of it (Notion, 1993). The importance of vocabulary teaching cannot be abnegated, but it must be taught effectively so that the learners should be provided with enrichment of learning, understanding and identifying new and specific words. Though there are various approaches and methods preferred by teachers, traditional ways of teaching vocabulary such as drilling and memorization are mostly implemented (Schmitt, 2008).

Schmitt (2008) claims that vocabulary learning is crucial for language proficiency and Ellis (1994) adds that the fundamental principle of L2 is its vocabulary (p. 11). Vermeer (1992:147) emphasized that knowing words is the key to find out and being found out by the language itself. Teaching English is undeniably a challenging task for teachers. Moreover, learners may find learning vocabulary a bit dull when teaching strategy does not appeal to interests and needs of students. Although the importance of vocabulary teaching in EFL classrooms is undeniable, how to teach the vocabulary in a most efficient way is not clear. According to Nation (1993), vocabulary knowledge facilitates language use, language use facilitates the increase of vocabulary knowledge, knowledge of the world empowers the raise of vocabulary knowledge and language use and so on (p. 115). Richards (1976) emphasized that not only the word information is kept in mind as an image, but also, we link formational and grammatical characteristics of words. Although there is an agreement upon that vocabulary learning is crucial for learners in language education field, the best strategy to teach vocabulary may vary with teachers, learners, approaches used and classroom setting.

Mondria and Wiersma (2004) highlight receptive and productive vocabulary learning research arguments. They define receptive vocabulary knowledge as knowing the meaning of an L2 word by translating the L2 word into the L1 equivalent. On the other hand, productive vocabulary knowledge is being able to use a word in context and express a concept using the L2 word. In a similar fashion, Nation (2001) proposed a table showing various formats of recognizing a vocabulary item and analyze differentiation of each format under three arguments as it is shown in Table 1:

Table 1

*Dimensions of Knowing a Word (Nation 2001, p. 27)*

| | | | |
|---|---|---|---|
| Form | Spoken | R | What does the word sound like? |
| | | P | How is the word pronounced? |
| | Written | R | What does the word look like? |
| | | P | How is the word written and spelled? |
| | Word Parts | R | What parts are recognizable in this word? |
| | | P | What parts are recognizable in this word? |
| | | R | What word parts are needed to express the meaning? |
| Meaning | Form and meaning | R | What meaning does this word form? |
| | | P | What word form can be used to express this meaning? |
| | Concept and referents | R | What is included in the concept? |
| | | P | What items can the concept refer to? |
| | Associations | | What other words does this make us think of? |
| | Use | P | What other words could we use instead of this one? |
| | Grammatical functions | R | In what patterns does the word occur? |
| | | P | In what patterns must we use this word? |
| | Collocations | R | What words or types of words occur with this one? |
| | | P | What words or types of words must we use with this one? |
| | Constraints on use (register to meet this) | R | Where, when, and how often would we expect this word? |
| Frequency | | P | Where, when, and how often can we use this word? |

*R: Receptive knowledge, P: Productive knowledge*

As summarized in Table 1, knowing and analyzing a word has three main topics as “form, meaning and use” which include many dimensions under the subtitles of “spoken, written, word parts, form and meaning, concept and referents, associations, grammatical functions, collocations, and constraints on use” (Nation, 2001, p.27). These different knowledge types may require different learning, teaching and testing strategies and may empower L2 learning (Mondria, & Wiersma, 2004). For the purposes of this study, productive vocabulary knowledge of YLs (3rd grade, primary school) were investigated through pre- and post-tests to find out whether there is any change in their vocabulary development after being exposed to online classes via Google Meet.

**2.2.1 Explicit and implicit vocabulary learning.** Learners can efficiently and conveniently learn meaning of vocabulary items throughout their lives. Children can acquire 3000 new words in each year during their school years and when they become adults, the vocabulary size gets through 10,000 and may go over 100,000 words in exceptional situations (Batterink, and Neville, 2011, p. 3182). Similarly, Schmitt (2008, p.330) focuses on two approaches as "vocabulary size which is number of words known by learners and the depth of vocabulary knowledge which refers to how well the words are known". Schmitt (2008) asserts that there is a discussion on the percentage of vocabulary items that a learner should know in order to understand the language. Besides of the vocabulary size of the learners, the depth of vocabulary knowledge is just as fundamental (Schmitt, 2008). The depth of the vocabulary knowledge can be developed by exposure to the lexical components in different contexts. Furthermore, the study emphasizes that various approaches for different stages of learning may be practical in terms of vocabulary size and the depth of vocabulary knowledge. Although at the beginning stages, an explicit approach which focuses on form-meaning relationship may be beneficial, in the later stages, an exposure approach may be effective because it enhances contextual knowledge (Schmitt, 2008).

Besides, learning from a context is also defined as incidental vocabulary learning while learners are paying attention to the meaning of the message instead of words themselves (Nation, 2001, p. 232). Learners learn the target vocabulary with no intent to learn it in different contexts (Schmitt, 1994). Similarly, Ellis (1994, p. 213) diversified two hypotheses "implicit and explicit hypothesis" in relation to vocabulary development of learners. Implicit hypothesis which is linked with behavioristic approach implies that learners recognize the target words unconsciously during conversations with others; however, the later hypothesis implies that vocabulary items are learned deliberately, with their awareness. Along the same lines, Parry's (1991) and Vidal's (2003) studies emphasized reading and listening play important roles in learners' incidental vocabulary learning development opposite to extensive approach. In other words, listening and reading stimulate vocabulary learning by contextualizing the information itself. For Quin (2004), guessing the words from contexts instead of using dictionaries is one of the most frequent ways to discover the meaning of an unknown word which is another incidental way of learning vocabulary. However, blending these two approaches can also make vocabulary learning more effective and productive somehow. Schmitt (2000) stated that combining both approaches are crucial because each of them makes compensation for one another when necessary.

Recently several studies have been carried out to reveal the effectiveness of technology in vocabulary development of learners in EFL classrooms (Alipour, 2020; Bağatur, 2019; Dinçer, 2014; Tasa, 2020; Yunus et al., 2016). According to Alipour (2020), online education has a good impact on EFL learners' vocabulary development. Moreover, Bağatur (2019) carried out an experimental study to find out the impacts of web-based-corpus on using vocabulary learning strategies and vocabulary size improvement at two state universities. The data was collected through surveys and semi-structured interviews in the study. The results showed that learners who are exposed to authentic examples in web-based corpus registers gain more familiarity with language learning (Bağatur, 2019). In a similar fashion, Dinçer (2014) conducted an experimental study to investigate the effects of social media networking on young adult learners' vocabulary learning at foreign languages school through achievement tests and scales of attitudes. As a result, the study claims that social media networking is much more effective on acquiring the target vocabulary items than conventional methods. Another study by Tasa (2020) was carried out in a very similar context which aimed to determine the impacts of an online platform on vocabulary development of adult EFL learners. The study adopted quasi-experimental design using pre-and post-test interviews to collect data from the participants. It was also emphasized in the study that online web tools help learners to retain and recall new vocabulary in their minds when needed to be used (Tasa, 2014). Lastly, Yunus et al. (2016) investigated the impact of CALL integration in vocabulary acquisition on EFL learners' vocabulary knowledge. In other words, it looked at how efficient a CALL-based strategy was at improving EFL learners' English vocabulary. CALL users benefited from it, and a CALL-based technique might greatly improve EFL learners' English vocabulary capacity, according to the findings.

In brief, the studies above indicated that technology has positive impacts on teaching and learning vocabulary in different settings with different participants. There is no contradiction to the fact that technology assists the process of vocabulary development. However, the role of physical conditions and facilities that learning may occur and learner involvement is still arguable.

## 2.3 Learner Autonomy

Over the last decades, learner autonomy has become an extensive subject and a common word in language learning setting (Little, 1991, p.8). It is difficult to define autonomy in a single sentence (Littlewood, 1999). Therefore, there is quantity of definitions of autonomy defined by many writers and educators. For Benson (2001), autonomy is when people take charge of their lives separately or collectively. Learner autonomy is defined as the capability of taking over the control of one's own learning by Holec (1981). For Little (1991), learner autonomy is "a capacity – for detachment, critical reflection, decision-making, and independent action." (p.4). Autonomy in learning is described "as a capacity to take charge of, or take responsibility for, or control over your own learning inside or outside of classroom." by Benson (2001, p. 37).

There are some key terms "learner-centeredness" and "learning-centeredness" which were associated with learner autonomy at different times by different people (Nunan, 1996). Learners are in a position that they can decide on what and how they want to learn in a learner-centered classroom; however, teachers do not hand over the power of the class (Nunan, 1996). As an advantage, learner-centered teaching leads to learner autonomy which gives learners a chance to have their own learning responsibilities (Assinder, 1991; Dam, & Gabrielsen, 1988; Nunan, 1987; Willing, 1988; cited in Nunan, 1996, p. 20). Hedge (2000) also argues that learners can take their learning responsibilities independent from their teacher as individuals to plan and assess the process.

According to Benson (2001, p.45), autonomous learning is much more practical and efficient than non-autonomous learning. Learner autonomy is not related to the terms 'self-instruction', 'self-access', 'self-study', 'self-education', 'out-of-class learning' or 'distance learning' because these terms are defined as diverse ways and amounts of learning by learners; however, autonomy means capabilities and perspectives in a way of managing your learning (Benson, 2001). This, however, causes some significant issues. For example, Sinclair (2000) discusses that learner capacity and individual differences should be considered in order to establish autonomy in the classes. Besides, imputing enough autonomy on learners' shoulders is another issue to be realistic. Finally, establishing such a suitable environment for learner autonomy where learners can take control of their learning consciously with enough encouragement and support must be taken into consideration to foster and support autonomy naturally.

**2.3.1 Learner autonomy in foreign language education.** There have been many definitions claimed by many to identify the importance of autonomy in foreign language education (Littlewood, 1996). The autonomy concept in language learning field started to be used in 1971 by the Council of Europe's Modern Languages Project. The founder of Centre de Recherches et d'Applications en Langues (CRAPEL) at the University of Nancy, France was Yves Châlon who died in 1972. After that, Henri Holec took his place as a representative who is recently known as a significant symbol of autonomy (Benson, 2001, p.8). Since then, educators have defined learner autonomy from different point of views by taking different contexts and conditions into considerations.

Holec (1981) defined learner autonomy as "the ability to take charge of one's own learning" by regarding all the forms of learning in "a systematic and deliberate way" (p.3). "Feeling free and volitional in one's actions" is a requirement of human nature and psychology (Deci, 1995, p.2). Moreover, this is fostered by learner motivation and interest, which clarifies how learning autonomy triggers learner motivation (Little, and Dam, 1998). Thus, when learners accept taking responsibility of their own learning, they realize that they can be motivated to dedicate themselves to develop some techniques of developing self-administration in language education which increases their intrinsic motivation. As a result of this commitment, autonomous learners are "motivated and reflective learners, their learning is efficient and effective" (Little, and Dam, 1998, p.8). As Wenden noted that autonomous learners see themselves as they have a significant role in their own learning; thus, they are eager to take responsibility (1991, p. 53). Therefore, learners can perform the skills gained from autonomy for the situations that they may experience outside of the classroom.

When literature review of learner autonomy has been reviewed, how to foster LA in classes has been argued. Benson (2001) highlighted that there is an agreement upon the point that autonomy cannot be "taught" or "learned" (p.124). Therefore, to develop autonomy among learners "fostering autonomy" is used to encourage learners. To be more specific, Little and Dam (1998) drew attention to three pedagogical assumptions which control the development of autonomy in language learning. First assumption is "learner involvement" which employs learners to take the responsibility of their learning process. Second one is "learner reflection" on learning which refers to "metacognitive dimensions" helping learners arrange their learning and motivate themselves. The final principle is using the target language properly to be autonomous in language education.

Moreover, Scharle and Szabo (2000) suggested some stages to enhance learner autonomy: First,” raising awareness” stage refers to “new viewpoints and new experiences learners should be encouraged to bring the inner processes of their learning to the conscious level of their thinking by learners” (p. 9). Secondly, “change attitudes and raise motivation” refers to “slow process requiring a lot of practice and patience, since it takes time to go from understanding to practicing new roles and habits, especially when this involves breaking away from stubborn old patterns of behavior” (p. 6). Lastly, “transferring roles” of learners and teachers in classroom in contrast to traditional methods used in language classes; learners as active participants; teacher as a facilitator. In brief, to foster learner autonomy educators should consider all these issues as well as the contemporary differences, interests and abilities of learners in different learning settings.

**2.3.2 Learner autonomy and technology-integrated education.** Developing autonomy in a traditional classroom where teachers are in control and rule their students is challenging for learners because they are not given any responsibility and control of their own learning. Little (1991) emphasized that developing autonomy in traditional classes where teachers dominate their students and give no voice in their lessons is nearly impossible (p.4). Since technology has gained so much popularity recently among language educators, technological devices as computers, tablets and smart phones and internet offer a great deal of opportunities for language learners to enhance their autonomy easily.

Shetzer and Warschauer (2000) stated the relationship between technology and learner autonomy as: Autonomous learners know how to define and develop research questions and think of plans to answer them. They answer their own questions through accessing learning tools and resources online and offline through technology. Teachers and learners work cooperatively and collaboratively to create learner autonomy with the help of technological devices and internet which enable learners to socialize among each other by offering some tools like chats, e-mails, games, and applications.

Dolan (2002) highlighted that technology can establish a classroom environment to develop and encourage learner autonomy in terms of individual differences, taking responsibilities and power of their learning. Moreover, there were possible benefits of online lessons mentioned. For instance, presenting flexible content in language programs which causes more dynamic lessons rather than static ones; thus, it would require less administrative support since the lessons would be performed at school, distance or personalized based learning environment facilities. Also, the institutions would not need to hire native speaker teachers thanks to opportunities presented by internet such as videos and audios.

Learner autonomy has brought a new perspective to foreign language education system, so it is becoming a more important aspect to investigate day by day in related literature all around the world. When it comes to the research studies conducted in Turkey, Mutlu (2008) investigated the roles of computer assisted language learning on learner autonomy through some questionnaires, semi-structured interviews, observations, and diaries kept by 48 preparatory school students at a private university. The findings of study revealed that the computer assisted trainings encouraged learners to take responsibilities in their own learning and helped them motivate themselves to use language learning strategies in a positive manner.

Another study carried out by Mısır (2017) revealed equivalent results which was employed mixed method design to collect data. To gather quantitative data, autonomy learner questionnaire was employed and for the qualitative one discussion forum posts were given to 57 participants in massive open online courses. The findings indicated that learners who attended online language courses are highly autonomous and eager to take over their learning; however, learners did not find the presence of teachers unnecessary and they favored learner autonomy and learners centered lessons in the process.

Zonturlu (2014) administered a study to examine learner perceptions of learner autonomy in a computer assisted language learning environment with the participants of preparatory students at a state university. In order to reach the goals of the study, qualitative and quantitative data were collected with the help of questionnaires, semi-structured face-to-face interviews. This study concluded that students had a motivation to participate lessons and used some metacognitive strategies to improve self-controlling and self-evaluation. Also, they considered their teachers more in charge during the process.

Güneş (2018) carried out a study in which asynchronous distance learning and blended learning were compared in terms of academic success, learner autonomy and motivation. The experiment study design was employed and the participants were divided into two groups as control and experiment groups including 145 students studying in a state university. The control group consisting of 114 students were taught English in asynchronous distance learning; however, the experiment group including 31 students were exposed to blended learning which refers to combination of face-to-face instruction and asynchronous distance learning during English classes. According to the results of the study, the control group students who were taught in blended learning had higher results than the asynchronous ones from the points of academic success, learner autonomy and motivation. There was a positive significant correlation obtained between blended learning students' academic success and motivation, and their motivation and autonomy and also between asynchronous distance learning students' motivation and autonomy. On the contrary, there was not a notable relationship between blended learning students' autonomy and academic success and between asynchronous distance learning students' academic success and their autonomy or motivation. Lastly, the participants in the control group were not happy to learn English at a distance, but experiment group participants were pleased to have face to face lessons blended with asynchronous distance learning.

Kömeç (2018) investigated 113 high school EFL students' perceptions of the flipped classroom in terms of learner autonomy, development of language skills, motivation and technological attitudes in Karabük. The data was collected through interviews with students and a questionnaire. According to the findings of the study, students generally had positive attitudes towards flipped classrooms and perceived themselves autonomous learners. They also believed that flipped classrooms promoted their language skills as well as their positive technological attitudes.

Based on the studies above, what matters at the end of the day is to encourage teachers and educators to use more computers and internet by presenting various materials and activities to both teachers and learners as a result of immense improvements of technology with an intention to foster learner autonomy in foreign language classes. Understanding the perceptions of learners and teachers towards online education has also vital importance in boosting autonomy of the learners. Upon the discussion of all studies done in literature, it can be said fairly that few studies have been carried out to find out the impacts of online education on young language learners' autonomy; that is, most of them have been conducted at universities.

Therefore, to prepare young language learners to upper classes as more autonomous learners, this mixed method type study aims to reveal the impacts of online education on their vocabulary development, learner autonomy and learner and teacher perceptions.

# Chapter 3
# Methodology

This chapter presents research procedure of the study including research design, setting, participants, data collection instruments and procedures and limitations of the study which aims to investigate how online education affects learner autonomy, vocabulary development and attitudes of 3rd grade students, as well as their teacher's perceptions.

The following research questions can be developed in the study along with the stated goals:

1) Does Google Meet as a Web 2.0 tool have any effect on the vocabulary development of Young Learners (YLs) of English (3rd grade, primary level)?

2) Does using Google Meet have any effect on the autonomy level of YLs?

3) What are the perceptions of YLs about learning vocabulary online via Google Meet in $3^{rd}$ grade English classes?

4) What are the perceptions of the teachers about teaching vocabulary to YLs via Google Meet?

## 3.1 Research Design

The present study aimed to investigate the effects of online education on learners' language learning specifically on vocabulary development, autonomy as well as to reveal the perceptions of YLs ($3^{rd}$ grade, primary school) and the teacher's towards online classes via Google Meet. To meet these objectives, mixed method research design which requires both qualitative and quantitative data collection tools and analysis to make use of benefits of both was applied. Having a solid qualitative method aims to describe data through perceptions and points of view; on the contrary, quantitative method seeks to assay numeric data collected in the study (Creswell, 2013). As Rosman and Wilson stated (1991), embedded mixed research method provides researchers to justify or develop findings of the study through 'triangulation' (p. 318). The combination of both research methods is recommended to researchers by determining the reliability and raising the possibility of generalizing the findings to other study settings. Blending quantitative and qualitative methods enables researchers to be able to produce a study with a detailed analysis of data not only by dealing with numerical findings, but also by describing observations, perceptions or attitudes to strengthen and triangulate the results of the study.

Mixed method research design is divided into four main groups as; explanatory, exploratory, and embedded design (Clark, and Creswell, 2011). In explanatory designs, quantitative data collection and analysis are prioritized which is followed by qualitative data in a sequencing manner. However, for exploratory design, qualitative data is conducted, and then qualitative data support quantitative data. As for studies carrying out convergent design, quantitative and qualitative data are gathered and analyzed simultaneously without prioritizing. Lastly, embedded design is a collection of both qualitative and quantitative synchronically, one form of data supports another.

Under the light of judgments above, this study adopted embedded design mixed method research by employing qualitative data collection tool from weekly reflective journals of the teacher and reflection supported quantitative data through questionnaires to determine the impact of online education on vocabulary development, autonomy and perceptions of young language learners and their teacher. It involves multiple methods of in-depth inquiry such as questionnaires and reflective journals as a result of teacher observation in which personal interactions take place between researcher and participants over an extended period of time (Bogdan, & Biklen, 1998; Marshall, & Rossman, 1999; Patton, 1987). To be more precise, two 3rd grade primary school classes were selected by using convenience sampling. Both classes maintained the regular online lesson procedure based on 4 topics from two different course books in the leadership of the same English teacher for six weeks. Quantitative data were collected through vocabulary knowledge test which was adapted from the course books as pre-test and post-test by the researcher to discover how learners develop their vocabulary knowledge based on the topics were covered during the classes. Similarly, Autonomy Learner Questionnaire was administered and self-reported Learner Attitudes Scales were adapted and administered by the researcher as pre and post-tests while qualitative data was gathered from the reflective journals kept by the teacher weekly.

### 3.2 Setting and Target Population

The study was conducted at a private primary school based in İstanbul, Turkey. 600 students are delivered education at the school aged 6-14. The majority of the school population is Turkish except for a few students. The school requires a placement test to accept the students when they first registered to school; however, there is no classification of levels among grades. The number of the classrooms is limited to 20.

The program offers learners to develop their macro skills that are needed during their L2 education and daily lives. Furthermore, it helps them develop their communication skills by using the content as a tool to communicate in L2 based on CLIL method applied in the English program since pre-school. The council chooses specific ELT course books before starting the academic year. To this end, the teacher-researcher was expected to follow the syllabi prepared by the planners based on the course books without any deviation from the curriculum of the English program, but with some flexibility to give priority to young language learners' different needs, interests, and abilities.

The participants of the study were two 3rd grade classes consist of 35 students aged 8-9. All students came from the same pre-school of the institution without any exception. Students had 12 hours of English per week and each lesson lasted 35 minutes in the online setting of Google Meet. Out of 35 students in the study, 22 were male and 13 were female (see table 2).

Table 2

*Distribution of Participants Regarding Their Gender*

| Gender | N | % |
|---|---|---|
| Female | 13 | %37.1 |
| Male | 22 | %62.8 |
| Total | 35 | 100 |

Finally, the teacher of the classes was also the practitioner of the study who had been teaching for 4 years at the institution. Since the researcher was also the teacher in both classes, some information of the researcher is presented as follows: The researcher had been teaching since 2017 to different groups of learners at different ages between 6-10 in Turkey. Online education was the main field of interest of the researcher since teachers and students have been suffering from insufficiencies in online education in terms of learner interests, perceptions and achievement. Considering online education as the only alternative way of teaching today under the circumstances of COVID-19 pandemic and apparently in future, the researcher looks for an expertise in this field by contributing to the field with this study for which she used pre- and post-tests to see vocabulary development of learners, pre-and post-questionnaires for autonomy and perceptions of learners towards online education.

### 3.3 Procedures

This chapter presents sources of data, data collection instruments, data collection procedures, reliability and validity of the study.

**3.3.1 Data collection instruments.** Several data collection stages were comprised in the study to ensure that all the gathered data were analyzed relevantly. Regarding the nature of the study, it mostly counted on statistical data analysis of vocabulary knowledge test, learner autonomy questionnaire and learner perception questionnaire as a result of which the impacts of online education on vocabulary development, learner autonomy and learner perceptions scales were determined. Lastly, the qualitative data was gathered through the reflective journals kept by the teacher researcher by the end of each week to be able to have an access to teacher perceptions on online education. Data collection and analysis stages lasted for seven weeks in total; data collection phase took five weeks. Learner autonomy questionnaire was given as pre- and post-tests and finally, learner perception scales as pre-post tests were administered. All quantitative data collection tools were prepared and applied through Google Forms due to virtual learning environment. In total, three quantitative data collection tools were used in the present study. They are specifically Autonomy Learner Questionnaire (ALQ), Learner Perception Questionnaire (LPQ) were tested for validity and reliability in a pilot study before the actual data collected. Vocabulary Knowledge Test (VKL) reliability was determined using KR-20, which estimates reliability for binary response scales.

In this section, quantitative and qualitative data collection instruments are presented. In this research, pre- and post- Autonomy Learner Questionnaire (Appendix A), Learner Perception Questionnaire (Appendix B) and Vocabulary Knowledge Test (Appendix C) were collected as quantitative data collection instruments while reflective journal (Appendix C) which was kept weekly by the teacher researcher was used as qualitative data collection measurement in this study. An overview of data collection instruments is presented in Figure 2 followed by detailed explanation.

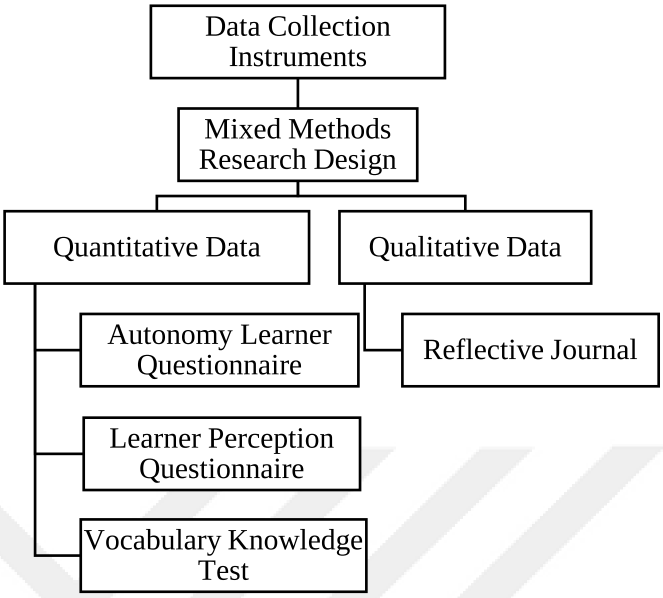


*Figure 2* An overview of data collection instruments

***3.3.1.1 Autonomy learner questionnaire (ALQ).*** The first quantitative data collection tool used was Autonomy Learner Questionnaire (Appendix A), which was a 5-point Likert Scale questionnaire consisting of five sub-factors and 12 items in total. It aimed at revealing what impacts online education has on learner autonomy which was applied as pre- and post-test. It was developed by Egel (2003), Autonomy Learner Questionnaire (ALQ) in English. The researcher of the present study adapted and administered this questionnaire in Turkish because of low English level of 3$^{rd}$ grade students by removing certain sub-factors. In this Likert type scale, the participants were expected to answer 12 statements and each of them have 5 options to choose as “always true”, “mostly true”, “sometimes true”, “rarely true”, and “never true”. “Always true” represented five points, “mostly true” represented four points, “sometimes true” represented three points, “rarely true” stood for two points, and “never true” represented the point of one. Also, the dependent and independent statements were included in the questionnaire that claims the opposite scoring method to reveal the differences between autonomous and non-autonomous behaviors. When the score of independent statements is higher, YLs are more autonomous. In contrast, when the score is higher in dependent statements, YLs have less autonomy (Egel, 2003).

The researcher of the present study adapted and administered this questionnaire in Turkish because of low English level of 3rd graders by removing certain sub-factors. The first sub-factor, "Readiness for Self-direction" consisted of three items and focused on learners' vocabulary knowledge, participation and interaction with others during the lessons. The second sub-factor, "Language Activities", consisting of two items investigated learner tendency to do further activities outside the school. The third sub-factor, "Objectives/Motivation", consisted of four items and explored learners' perceptions on their own performance evaluation in terms of realizing their strengths and weaknesses. The fourth sub-factor, "Independent work in language learning", consisting of two items, examined whether learners have a tendency to do extra lesson related activities. The last sub-factor, "Importance of Teacher", consisted of one item and explored the learners' perceptions about the importance of teacher. As a result, data for the third research question was provided by ALQ. The following table displays the five sub-factors in ALQ (Table 3).

Table 3

*Five Dimensions in the Autonomy Learner Questionnaire*

| Section | Number of Items | Focus | Number of the Questions |
|---|---|---|---|
| Dimension 1 | 3 | Readiness for Self-direction | Q1, Q3, Q5 |
| Dimension 2 | 2 | Language Activities | Q2, Q11 |
| Dimension 3 | 4 | Objectives/Motivation | Q8, Q9, Q10, Q12 |
| Dimension 4 | 2 | Independent | Q6, Q7 |
| Dimension 5 | 1 | Importance of the Teacher | Q4 |

***3.3.1.2 Learner perception questionnaire (LPQ).*** As the second quantitative data collection tool, Learner Perception Questionnaire (Appendix B) which was designed by Işık (2009) was adapted to find out the perceptions of 3$^{rd}$ grade students about online education by removing some factors. The researcher of the present study adapted and used the questionnaire's Turkish version for their understanding clearly. There are 12 items consisting of 5 sub-factors related to perceptions of learners towards online education. The first sub-factor "Interest/Enjoyment" consisted of five items and investigated whether young language learners enjoyed online lessons and were interested in learning. The second sub-factor, "Perceived Competence", consisting of one item, investigated their perception of satisfaction about online learning. The third sub-factor, “Willingness”, including three items, explored learners’ motivation and eagerness to participate and to work on learning activities on online education. The fourth sub-factor, “Participation”, consisted of two items and explored learners’ perceptions of participation and performance in the online classes. The last sub-factor, “Useful”, consisting of one item found out learners’ perceptions about whether online education made it easier to access to lesson materials and activities. Moreover, each item had 4 Likert scales, “Totally Agree, Agree, Disagree, Totally Disagree” not to make young language learners feel confused. Both questionnaires as pre-post tests were conducted in Turkish so as to prevent any misunderstandings. Lastly, Learner Perception Questionnaire (LPQ) provided data for the third research question. Table 4 below reveals the sub-factors of LPQ.

Table 4

*Five Sub-factors in the Learner Perception Questionnaire*

| Section | Number of Items | Focus | Number of the Questions |
|---|---|---|---|
| Sub-factor 1 | 5 | Interest/Enjoyment | Q1, Q2, Q3, Q4, Q11 |
| Sub-factor 2 | 3 | Willingness | Q5, Q10, Q12 |
| Sub-factor 3 | 2 | Participation | Q7, Q9 |
| Sub-factor 4 | 1 | Perceived Competence | Q6 |
| Sub-factor 5 | 1 | Useful | Q8 |

***3.3.1.3 Vocabulary knowledge test (VKT).*** For the purpose of the study, all language skills such as reading, writing, listening, grammar and vocabulary were taught during the online education implementation based on the curriculum provided by the school. However, it was found easier to test the vocabulary development of the participants for the scope of the present study. As a result, the first quantitative data collection tool was the Vocabulary Knowledge Test (VKT) including multiple choice questions from the course books which are Richmond Compass Language Log (Level 2) and Richmond Life Sciences Primary and Activity Books (Appendix D). The pre-test was given to all participants in the first phase of the trial. Before the implementation of online education, the researcher administered a pre-test to determine the YLs' present ability to understand the language that would be covered in the course. The target vocabulary was taught with CLIL method which was an implicit way of teaching language skills through specific content and it was imposed by the school administration.

Vocabulary test which was given as pre- and post-tests was comprised of filling in the blanks with the vocabulary items and matching the pictures with words with an intent to measure vocabulary knowledge of learners. The test included fill in the blanks activities that the students were required to choose the appropriate vocabulary items in accordance with the related pictures which were taken from course books used in class as mentioned before. The pre- and post-tests included the same 20 statements related to vocabulary items which were conscientiously chosen from the course books used in English classes mentioned before. The target vocabulary was picked from the primary course book's online teaching tools. Richmond provides a password to access the resource page. The vocabulary items were chosen from the course book based on the syllabus of the school for each week of implementation since the teacher-researcher had to follow the curriculum of the school during the implementation. The VKT consisted of 15 sets of nouns, 3 sets of adjectives and 2 sets of verbs making of 20 vocabulary items (Appendix C). In addition, the pre-post tests were administered and applied through Google Forms since students were taught synchronously outside the school. As it was mentioned in Chapter 1 before, vocabulary is one of enormous grueling that students may encounter. Furthermore, these pre-post vocabulary tests aim to find out the efficacy of online education on students' vocabulary development as a result of the implementation. The participants were asked to complete the test in 35 minutes, one lesson hour since there were only multiple-choice questions including related pictures to make them understand better. In addition, the Vocabulary Knowledge Test (VKT) provided data for the first research question.

***3.3.1.4 Reliability and validity – the pilot studies.*** Reliability is defined as the degree to which a questionnaire, test, observation, or other measurement process consistently provides the same results across time. The accomplishment test's reliability was determined using KR-20, which estimates reliability for binary response scales. KR-20 reliability was found to be .72. Nunnally and Bernstein (1994) established a broad research convention, stating that dependability values of .70 or greater should be pursued. The achievement test can be deemed to be dependable in the present study. In order to measure the validity and reliability of the Autonomy Learner Questionnaire (ALQ) and Learner Perception Questionnaire (LPQ) scales to be employed in the study, a pilot study was conducted with a different group consisting of 38 students who were not participating in the real study. There are more items in scales of the original studies for both questionnaires than in the present study. Since the sample was not found adequate in the present study, some of the items in the scales were eliminated from the questionnaires.

After piloting the ALQ, the Cronbach Alpha reliability of this questionnaire was measured by the researcher herself using the Statistical program SPSS. The Cronbach Alpha coefficient of ALQ was estimated as .97 (see Table 4). Therefore, ALQ is assumed as a reliable instrument to be used with young language learners whose mother tongue is Turkish. There were 12 items related to learner's autonomy and each item had five Likert scale ranging from 'Never' to 'Always'. The reason why the points from 1 to 5 weren't included was to make young learners understand the scales clearly.

Table 5

*Cronbach's Alpha Coefficient of ALQ*

| Cronbach's Alpha | Cronbach's Alpha on standardized Items | N of Items |
|---|---|---|
| .97 | 1.00 | 12 |

For the reliability, analysis of the LPQ questionnaire was conducted through SPSS. The Cronbach Alpha coefficient of LPQ is .79 which can be accepted as reliable (see Table 5).

Table 6

*Cronbach's Alpha Coefficient of LPQ*

| Cronbach's Alpha | Cronbach's Alpha on Standardized Items | N of Items |
|---|---|---|
| .79 | .57 | 12 |

**3.3.1.5 Reflective journals.** Along with quantitative data, qualitative data were only collected through reflective journals kept by the teacher which will be explained in this section. Reflective journals attach importance to the work in progress which help researcher to mirror on the experience (Creswell 2012). Reflected journals kept by the teacher researcher weekly were employed in order to explore teacher perceptions, attitudes and struggles as well as positive moments she experienced in terms of learners' autonomy and perceptions. She commented on the learning and teaching process based on her own rationale for the choices she made in terms of syllabus, lesson materials and content.

As a result, she evaluated the effectiveness of implementation of online education which ensured data for the last research question. In order to review the quantitative and qualitative data obtained from the learners themselves and to bring a more extensive insight into the implementation process, teacher-researcher wrote reflective journal for each week of implementation (see Appendix C). The qualitative data were analyzed using content analysis (Thomas, 2006). For the qualitative data analysis, firstly, reflective journals were transcribed. Then, in the second reading, the raw data was coded and collated under broader categories for each data using Nvivo Software, 2020.

**3.3.2 Data collection procedures.** This part sums up data collection procedures of study including sampling and implementation weekly. Finally, the consent form of the school and parents was taken through a signed form. Confidentiality and anonymity of participants were secured during the research study. To gain clear insight into procedural stages of the study, Table 7 was presented which outlined the whole study.

Table 7

*Outline of Data Collection Procedure*

| Week | Data Collection |
|---|---|
| Week 1 | Preparing the pre-post tests will be applied for the study. |
| Week 2 | Pre-tests |
| Week 3 | Treatment, Reflective journal |
| Week 4 | Treatment, Reflective journal |
| Week 5 | Treatment, Reflective journal |
| Week 6 | Treatment, Reflective journal |
| Week 7 | Treatment, Reflective journal |
| Week 8 | Post-Tests |

***3.3.2.1 Types of sampling.*** According to Sorensen & Walker (2013), sampling enables researchers to carry out their studies on small quantities of population rather than the whole group. Sampling has two main types as probability and nonprobability. The prior one presumes random sample collection which states that all participants have equal chances to be chosen out of a population. However, nonprobability sampling is performed when sampling is conducted as opposed to some criteria. It has three main parts under the titles of quota sampling, purposive and convenient sampling (Creswell & Plano Clark 2007). Convenient sampling was utilized in this study due to simple access to samples to which researcher herself taught both of the 3rd grade classes.

**3.3.3 Implementation.** The present study employed mixed method research design and thirty-eight 3rd grade students were included in the study. The following section presents the implementation of the study in which the topics were covered on a weekly basis.

***3.3.3.1 Week 1.*** In this week, the school board, parents and students were informed about the study and data collection tools. The importance of the study was emphasized to be able to have a maximum number of participants in the study. The researcher adapted vocabulary knowledge test which was adapted from the two course books used in the classes, then the scales of learners' autonomy and perceptions questionnaires were adapted and administered through Google Forms.

***3.3.3.2 Week 2.*** In this week, teacher researcher announced and administered the vocabulary knowledge test as pre-test to find out about the students' current ability to understand vocabulary to be covered in the course before the implementation of online education begun. The test was administered at the first English lesson of the week in both classes by the teacher and lasted for 30 minutes. In the second English lesson of the week, the questionnaires including learner autonomy and perceptions statements was implemented in 30 minutes to discover how learners perceive online education and their autonomy in online lessons. The researcher herself invigilated the test and questionnaire for both classes. After implementation of test and questionnaires, the teacher started to teach the topic of dinosaurs under the title of 'What was there millions of years ago?'. The target vocabulary of the lessons was taught through CLIL method which was an implicit way of teaching vocabulary. Specifically, slides and presentations, interactive online games, songs and videos were employed to teach the vocabulary. During the week, they listened to songs related to dinosaurs and talked about their body parts, height and weight and dinosaur types through some visuals and videos. Through the end of the week, the teacher started to do some revision on solar system and planets topics which were covered the previously in English lessons. Finally, as homework, the students were assigned to read a fiction book from an online platform about an alien coming from the space grounding on the Earth. Then, learners were assigned a video to watch about solar system and answered the questions on the handout as home practice. At the end of the week, the teacher researcher began to keep her reflective journal and wrote about her perceptions, attitudes and challenges she encountered in online lessons (see Appendix E).

***3.3.3.3 Week 3.*** The teacher kept teaching about dinosaurs' body parts, dinosaur types and dinosaur diet by implicit teaching of simple past tense. Students were asked to draw the missing body parts of dinosaurs while listening to the audio and it was followed by drawing their own dinosaurs on their notebooks by labelling the body parts. As homework, reading texts from their course book related to dinosaur topic and comprehension questions were assigned. Students started revising solar system topic which they already covered in previous years by using there is/there are grammar structures. In that, they practiced the vocabulary items they already learnt. The Moon Phases topic was introduced to students by watching related videos to draw their attention to the topic. Some handouts including filling in the blanks and matching pictures with the words and also topic related online books were assigned as homework this week (see Appendix E).

***3.3.3.4 Week 4.*** In the following days, 3rd graders were asked to listen to some audios in order to match the body parts of dinosaurs with the pictures. The videos about dinosaurs were watched and followed by a matching activity. YLs were supposed to match height, weight and time periods with each type of dinosaur. The simple present tense was aimed to use by the teacher as the target structure through the unit. Mostly videos, songs smart board activities were conducted to teach the vocabulary items through the week. Each moon phase was taught through the visuals. Some handouts with simple matching and filling the blanks activities were assigned along with an online book about Moon Phases (see Appendix D).

***3.3.3.5 Week 5.*** After revising the vocabulary items through audio visual activities, picture dictation task was conducted. 3rd grade English learners drew the missing body parts of dinosaurs while listening to the related audio. Then, they were supposed to color the dinosaurs along with the instructions in the audio. Through the end of the week, students presented their extra work materials which were related to different kinds of dinosaurs and their body features. Finally, they drew and colored the Moon phases in their notebooks. They were assigned to research a pre-historic animal to be used in their writing lesson in the following week at the end of the week (see Appendix D).

***3.3.3.6 Week 6.*** Lastly, the participants wrote about a pre-historic animal they researched previously. They were supposed to use "there was/were" structures with the target vocabulary items they learnt till this week such as body parts, adjectives describing body parts and features of dinosaurs and the other pre-historic animals such as mammoths and dodo birds lived millions of years ago. They played different kinds of games to revise the target structures and the vocabulary items such as Kahoot, mystery box, and jeopardy games (see Appendix D).

***3.3.3.7 Week 7.*** At the beginning of the week, the post vocabulary test was applied on Google Forms which was followed by the post autonomy learner and learner perception questionnaires in order to reveal the impacts of online education implementation. Teacher wrote her general perceptions and feelings about online education from the perspective of herself and her students based on her observations and experiences for five weeks.

## 3.4 Data Analysis

The quantitative data was analyzed on SPSS (Statistical Package for the Social Sciences). The qualitative data was analyzed by using content analysis (Thomas, 2006).

**3.4.1 Quantitative data analysis.** The SPSS program was used to analyze the quantitative data to reveal the implementation results. Firstly, the normality test was implemented to the ALQ (pre- and post-test), LPQ (pre- and post-test), and VKT (pre- and post-test) to reveal if the data is normally scattered. To determine whether the data is normally distributed, skewness and kurtosis coefficient are utilized. Shapiro Wilk (S-W) Test and Kolmogorov-Smirnov (K-S) test could also be used to test the normality of results; nevertheless, these measurements were not preferred in this study because these tests are too sensitive to measure minor distinctions from normality and also it is an acceptable normality test for the data comprised of sample size less than 50 cases (Field, 2009). Therefore, normality testing was applied by focusing on other metrics such as skewness and kurtosis values. According to Huck (2012), when skewness and kurtosis values are from + 1 to -1 data can be accepted as normally distributed while Tabachnick & Fidell (2013) claimed the acceptable range for normality as between -1.5 to +1.5. However, For George and Mallery (2010), when coefficients differ between -2 and +2, data exhibit normal distribution, so this range was applied to suit the framework of this study. As Tables 7, 8 and 9 below show, p values, which were calculated as a result of Skewness and Kurtosis, were found to be normally distributed.  As a result, it was proved that parametric statistics test can be applied since the collected data was normally distributed.

Table 8

*Normality Test for Pre and Post Test of ALQ*

| | N | Skewness | Kurtosis |
|---|---|---|---|
| Pre ALQ-Test | 35 | -.03 | .77 |
| Post ALQ-Test | 35 | -.17 | .78 |

Table 9

*Normality Test for Pre and Post Test of LPQ*

| | N | Skewness | Kurtosis |
|---|---|---|---|
| Pre LPQ-Test | 35 | -.34 | -1.05 |
| Post LPQ-Test | 35 | -41 | -.00 |

Table 10

*Normality Test for Pre and Post VKT*

| | N | Skewness | Kurtosis |
|---|---|---|---|
| Pre VKT | 35 | .52 | -.50 |
| Post VKT | 35 | -1.41 | 1.92 |

After the normality test results, the findings of the quantitative data gathered in this study were analyzed through SPSS (Statistical Package for the Social Sciences), and qualitative data were analyzed through content analysis (see Table 11).

Table 11

*Overview of Research Questions and Corresponding Procedures*

| Research Question | Data Collection Instruments | Data Analysis |
|---|---|---|
| Does Google Meet as a Web 2.0 tool have any effect on the vocabulary development of Young Learners (YLs) of English (3rd grade, primary level)? | Vocabulary Knowledge Test (VKT) | SPSS Paired Samples t-test |
| Does using Google Meet have any effect on the autonomy level of YLs? | Autonomy Learner Questionnaire (ALQ) | SPSS Paired Samples t-test |
| What are the perceptions of YLs about learning vocabulary online via Google Meet in 3rd grade English classes**?** | Learner Perception Questionnaire (LPQ Reflective Journal | SPSS Paired Samples t-test Content Analysis |
| What are the perceptions of the teachers about teaching vocabulary to YLs via Google Meet? | Reflective Journal | Content Analysis |

For the quantitative data analysis, paired samples t-test was applied to analyze gain scores of samples as it was aimed to determine the effects of online education implementation on their autonomy, perceptions and vocabulary knowledge. Independent samples t-test was also applied to learner autonomy questionnaire obtained from both groups at the end of the treatment to compare their learner autonomy levels and examine the difference between each group. Paired samples t-test was used to prove if the implementation of pre- and post-tests could be defined as significant in terms of learner autonomy, perception and vocabulary knowledge. During the quantitative data analysis process, p values less than .05 were considered significant in this research. Furthermore, quantitative data were supported through qualitative data to increase the reliability and trustworthiness of the study.

**3.4.2 Qualitative data analysis.** The qualitative data were analyzed using content analysis (Thomas, 2006). Hsieh and Shannon (2005) defined content analysis as a research method which was used to interpret the content of qualitative data subjectively by systematically categorizing, coding and identifying themes or patterns. For the qualitative data analysis, firstly, reflective journals were read from beginning to the end and consistency review was done by an expert who studied qualitative research. Then, in the second reading, the raw data was coded and collated under broader categories for each data using Nvivo Software, 2020.

**3.4.3 Triangulation of quantitative and qualitative data.** There are various ways to triangulate the data in order to certify the trustworthiness of the study (Cresswell, 2012). Collecting data from different individuals who have different background and point of views is one of them such as from the students and the teachers as utilized in the present study. Secondly, using different types of data collection tools like questionnaires and journals which were included in this study is another method.

## 3.5 Limitations

Although this research study met its objectives to a large extent and also designed and organized with detailed procedures, there are significant limitations in terms of sample size and duration of the implementation. Firstly, the sample size was insufficient (N=35) due to the online education system. It would be simpler to collect data from more YLs in person because some of them did not want to participate in an online setting. Moreover, this study was limited in external validity because it was conducted in only one group of age level (age between 8-9) at the primary school. Due to time and curricular limits, the study could not have gained higher external validity with a bigger sample, and the results could not have been more generalizable. With a larger sample, the researcher can better monitor the procedure and participants, boosting the study's trustworthiness. Furthermore, since the students and teacher were both from the same primary school, the study may have included more students from similar backgrounds and primary schools. Secondly, the study lasted seven weeks due to curricular time constraints with five weeks of instruction and two weeks of examination. Ministry of education decided to switch from online education to hybrid education. Furthermore, the researcher was the only one who graded ALQ, LPQ and VKT. A second grader could not be included in the study due to the online education system. Thirdly, this study could have achieved different results if there were some interviews as data collection tools which could have been done with the teachers and other classes in the primary school. Lastly, as this thesis is written under pandemic conditions, this study may not be appropriate due to limited interaction opportunities during the online education time; as a result, it may have reduced the quality of willingness of participation for some YLs. Additionally, there were some disincentive factors like internet connection problems, students' concerns about the online education environment, teacher-researcher's lack of control over YLs. Both students and instructors have been dealing with the mental strain of lockdowns, health difficulties, and greater workloads while attempting to adjust to the "new normal" routines. It is important to note that this may have an impact on the study's findings.

## Chapter 4
## Findings

### 4.1 Overview

In this chapter, the quantitative data results obtained from ALQ, LPQ and VLT pre- and posttest scores and then the qualitative data results of the reflective journal kept by the teacher researcher which aimed to seek the perceptions of the teacher during the implementation of online education in 3rd grade EFL classrooms are presented respectively. Finally, the findings of both data types are combined and unveiled together.

### 4.2 Findings of Quantitative Data

The following section reports the findings of quantitative data which was analyzed through SPSS. Descriptive statistics, means, and standard deviations for the sample were utilized in order to reveal the results of the implementation about the effects of online education on YLs' autonomy, vocabulary knowledge and perceptions and also on teacher perceptions. First of all, a paired samples t-test was utilized to examine pre-and post-scores of autonomy learner questionnaire, learner perception questionnaire and vocabulary knowledge test. Throughout quantitative data analysis in the present study, p values less than .05 were considered as significant.

**4.2.1 Findings of the 1st RQ:** Does online education have any impact of the vocabulary knowledge of young learners (3rd grade, primary school)? This section presents an understanding of whether there is a significant change in YL's vocabulary knowledge pre- and post-tests after the implementation of online education (see Table 12).

Table 12

*Paired Sample T-test Scores of Vocabulary Knowledge Test*

| | | N | $\bar{X}$ | SD | t-test | |
|---|---|---|---|---|---|---|
| | | | | | *t* | *p* |
| Vocabulary Knowledge Test | *Pre* | *35* | 55.00 | 17.53 | -7.76 | .00 |
| | *Post* | *35* | 81.00 | 13.92 | | |

*p<.05

The findings of the data test displayed that online education contributed young learners' vocabulary knowledge, t(34) = -7,76, p= .00. The results from the pre-test (M=55.00, SD=17.53) and post-test (M=81.00, SD=13.92) indicated that online education caused an improvement in vocabulary knowledge of YLs. Furthermore, it was found out that there was a significant difference between pre- (M=55.00, SD=17.53) and post vocabulary knowledge test scores (M=81.00, SD=13.92) which revealed that online education led to an improvement YLs' vocabulary knowledge, t(34)= -7.76, p=.00<.05.

**4.2.2 Findings of the 2nd RQ:** Does online education have any impact on the autonomy level of young learners? For the purpose of the study, a learner autonomy questionnaire was gathered from the YLs before and after the implementation of online education. Paired sample t-test was applied to compare the difference between YLs' autonomy level. As a result, percentages of YLs' responses were calculated to give an insight information of the data. The tables below show the paired samples t-test results regarding 5 dimensions developed for the questionnaire:

Table 13

*Paired Samples t-test Results about Self-direction*

| Dimension | Question Number | Test | N | X̄ | SD | t-test t | p |
|---|---|---|---|---|---|---|---|
| Self-Direction | Q1 | Pre | 35 | 3.63 | 1.19 | .81 | .42 |
| | | Post | 35 | 3.46 | 1.14 | | |
| | Q3 | Pre | 35 | 4.80 | .47 | .20 | .83 |
| | | Post | 35 | 4.70 | .64 | | |
| | Q5 | Pre | 35 | 4.63 | .64 | .94 | .35 |
| | | Post | 35 | 4.51 | .78 | | |
| | Total | Pre | 35 | 4.35 | .59 | 1.04 | .30 |
| | | Post | 35 | 4.24 | .53 | | |

*p<05

There was no significant difference between overall scores of self-direction dimension based on findings of ALQ (t=1.04, p=.30>.05). In addition, there was no significance difference between the question 1 (t=.81, p=.42>.05), question 3 (t=.20, p=.83>.05), and question 5 (t=.94, p=.35>.05) in pre- and post-tests of ALQ. As a result, it can be concluded that online education did not affect YLs' autonomy levels in terms of self-direction.

Table 14

*Paired Samples t-test about Language Activities*

| Dimension | Question Number | Test | N | X̄ | SD | t-test t | P |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Language Activities | Q2 | Pre | 35 | 3.34 | 1.23 | 1.71 | .09 |
| | | Post | 35 | 3.09 | 1.33 | | |
| | Q11 | Pre | 35 | 3.49 | 1.46 | .33 | .74 |
| | | Post | 35 | 3.40 | 1.31 | | |
| | Total | Pre | 35 | 3.41 | .98 | 1.12 | .26 |
| | | Post | 35 | 3.24 | .99 | | |

*p<.05

The findings of the data set showed that there was no significant difference between overall scores of language activities dimension of ALQ (t=1.12, p=.26>.05). Also, no significant difference was found between the question 2 (t=1.71, p=.09>.05) and question 11 (t=.33, p=.74>.05) in pre- and post-tests of ALQ. Therefore, online education did not have any effect on YLs' autonomy regarding language activities.

Table 15

*Paired Samples t-test about Objectives/Evaluation*

| Dimension | Question Number | Test | N | $\bar{X}$ | SD | t-test | |
|---|---|---|---|---|---|---|---|
| | | | | | | t | p |
| Objectives/Evaluation | Q8 | Pre | 35 | 4.46 | .98 | 1.94 | .06 |
| | | Post | 35 | 3.91 | 1.42 | | |
| | Q9 | Pre | 35 | 4.60 | 0.91 | 1.02 | .31 |
| | | Post | 35 | 4.34 | 1.28 | | |
| | Q10 | Pre | 35 | 3.63 | 1.47 | 1.17 | .24 |
| | | Post | 35 | 3.31 | 1.47 | | |
| | Q12 | Pre | 35 | 4.26 | 1.06 | .69 | .49 |
| | | Post | 35 | 4.11 | 1.20 | | |
| | Total | Pre | 35 | 4.23 | .73 | 1.27 | .09 |
| | | Post | 35 | 3.92 | .98 | | |

*p<.05

The findings of the data set revealed that there was no significant difference in overall objectives/evaluation dimension scores of ALQ (t=1.27, p=.09>.05). Moreover, no significant difference was found between the question 8 (t=1.94, p=.06>.05), question 9(t=1.02, p=.31>.05), question 10(t=1.17, p=.21>.05) and question 12(t=.69, p=.49) in pre- and post-test scores. As a result, online education had no impact on the autonomy of YLs in terms of objectives/evaluation.

Table 16

*Paired Samples t-test about Independent*

| Dimension | Question Number | Test | N | X̄ | SD | t-test t | p |
|---|---|---|---|---|---|---|---|
| Independent | Q6 | Pre | 35 | 3.37 | 1.41 | .78 | .43 |
| | | Post | 35 | 3.20 | 1.49 | | |
| | Q7 | Pre | 35 | 3.60 | 1.43 | -1.62 | .11 |
| | | Post | 35 | 4.00 | 1.26 | | |
| | Total | Pre | 35 | 3.48 | 1.26 | -.63 | .52 |
| | | Post | 35 | 3.60 | 1.20 | | |

*p<.05

As for the findings of the learner autonomy questionnaire, no significant difference between overall scores of independent was found (t=-63, p=.52>.05). Furthermore, there was no statistical difference between pre- and post-test scores of question 6 (t=.78, p=.43) and Q7(t=-1.62, p=.11). Hence, it can be concluded that online education did not contribute to YLs' learner autonomy regarding independency.

Table 17

*Paired Samples t-test about Importance of the Teacher*

| Dimension | Question Number | Test | N | X̄ | SD | t-test t | p |
|---|---|---|---|---|---|---|---|
| Importance of the teacher | Q4 | Pre | 35 | 3.89 | 1.18 | 1.37 | .17 |
| | | Post | 35 | 3.60 | 1.16 | | |

*p<.05

According to the table 17 above, there was no statistical difference in overall importance of the teacher scores before and after the implementation of online education (t=1.37, p=.17). As a result, it could be summarized that online education did not contribute to YLs' learner autonomy based on importance of the teacher.

All in all, the data was evaluated by means of the SPSS paired samples t-test to compare learner autonomy levels of YLs before and after the online education implementation. Based on overall findings of learner autonomy questionnaire, there was no significant difference in YLs' autonomy levels in terms of five dimensions before and after the implementation (p>.05).

**4.2.2 Findings of the 3rd RQ:** What are the perceptions of YLs about learning vocabulary online via Google Meet in 3rd grade English classes**?** This section presents an understanding of changes in participants' perceptions about online education before and after the online education implementation regarding five sub-factors. Paired samples t-test was applied to pre- and post-test scores to determine whether there is a significant difference in perceptions of YLs before and after the implementation.

Table 18

*Paired Samples t-test about Interest/Enjoyment*

| Dimension | Question Number | Test | N | $\bar{X}$ | SD | t-test | |
|---|---|---|---|---|---|---|---|
| | | | | | | t | p |
| Interest/Enjoyment | Q1 | Pre | 35 | 3.66 | .48 | 3.24 | .00 |
| | | Post | 35 | 3.17 | .78 | | |
| | Q2 | Pre | 35 | 3.43 | 0.88 | 3.29 | .00 |
| | | Post | 35 | 2.74 | 1.01 | | |
| | Q3 | Pre | 35 | 3.51 | .70 | 1.70 | .09 |
| | | Post | 35 | 3.17 | .89 | | |
| | Q4 | Pre | 35 | 2.74 | 1.12 | 1.46 | .15 |
| | | Post | 35 | 2.34 | 1.08 | | |
| | Q11 | Pre | 35 | 2.03 | 1.24 | -.47 | .63 |
| | | Post | 35 | 2.17 | 1.07 | | |
| | Total | Pre | 35 | 3.07 | .40 | 3.09 | .00 |
| | | Post | 35 | 2.72 | .51 | | |

*p<.05

The findings of data set showed that there was a significant difference overall scores of interest/enjoyment of YLs about online education (t=3.09, p= .00<.05). The results from the pre-test (M=3.0, SD=.40) and post-test (M=2.7, SD=.51) of the participants revealed that online education led to a decrease in YLs perceptions of interest/enjoyment. Moreover, it was found that there was a significant difference between pre- and post- test scores of the participants regarding question 1 (t=3.24, p=.00<.05), question 2 (t=3.29, p=.00<.05). However, no significant difference between pre- and post-test scores of question 3 (t=1.70, p=.09>.05), question 4 (t=-1.46, p=.15>.05) and question 11 (t=-.47, p=.63>.05) after online education implementation.

Table 19

*Paired Samples t-test Results about Willingness*

| Dimension | Question Number | Test | N | X̄ | SD | t-test | |
|---|---|---|---|---|---|---|---|
| | | | | | | t | p |
| Willingness | Q5 | Pre | 35 | 3.20 | 1.07 | .77 | .44 |
| | | Post | 35 | 3.00 | 1.16 | | |
| | Q10 | Pre | 35 | 2.91 | 1.01 | 2.08 | .04 |
| | | Post | 35 | 2.43 | 1.03 | | |
| | Q12 | Pre | 35 | 3.09 | 1.01 | 2.30 | .02 |
| | | Post | 35 | 2.49 | 1.01 | | |
| | Total | Pre | 35 | 3.06 | .80 | 2.30 | .02 |
| | | Post | 35 | 2.63 | .80 | | |

*p<05

According to table 19, overall findings of LPQ revealed that online education caused a significant change YLs' perceptions of willingness (t=2.30, p=.02). The results of pre- (M=3.06, SD=.80) and post-test (M=2.63, SD=.80) scores of the participants indicated that there was a significant decline in willingness perception of YLs. In addition, the findings showed that there was a significant difference between pre- and post- test scores of the participants regarding question 10 (t=2.08, p=.04<.05) and question 12 (t=2.30, p=.02<.05). Nevertheless, no statistical difference between pre- and post-test scores of question 5 (t=.77, p=.44>.05) was found in terms of willingness perception.

Table 20

*Paired Samples t-test about Participation*

| Dimension | Question Number | Test | N | X̄ | SD | t-test | |
|---|---|---|---|---|---|---|---|
| | | | | | | t | p |
| Participation | Q7 | Pre | 35 | 2.71 | 1.15 | 1.44 | .15 |
| | | Post | 35 | 2.34 | 1.18 | | |
| | Q9 | Pre | 35 | 2.91 | 1.06 | 2.83 | .00 |
| | | Post | 35 | 2.14 | 1.08 | | |
| | Total | Pre | 35 | 2.81 | .97 | 2.48 | .01 |
| | | Post | 35 | 2.24 | .98 | | |

*p<.05

The learner perception questionnaire's findings revealed that there was a significant difference in overall scores of participants regarding participation perception (t=2.48, p=.01<.05). Furthermore, it was found out that online education caused a significant decrease based on pre- (M=2.81, SD=.97) and post-test (M=2.24, SD=.98) scores of LPQ in terms of participation perception. Also, it can be concluded that a statistical difference wasn't found between pre- and post-test scores of question 7 (t=1.44, p=.15>.05) while there was a significant change was determined between pre- and post-test scores of question 9 (t=2.48, p=.01<.05).

Table 21

*Paired Samples t-test about Perceived Competence*

| Dimension | Question Number | Test | N | X̄ | SD | t-test | |
|---|---|---|---|---|---|---|---|
| | | | | | | t | p |
| Perceived Competence | Q6 | Pre | 35 | 2.66 | .59 | 1.40 | .16 |
| | | Post | 35 | 2.37 | 1.03 | | |

*p<.05

Based on findings in table 21, there was no significant difference between pre- (M=2.66, SD=.59) and post-test (M=2.37, SD=1.03) scores of perceived competence perception of YLs. In fact, online education did not affect the perceived competence perception of YLs regarding overall scores of question 6 (t=1.40, p=.16>.05).

Table 22

*Paired Samples t-test about Useful*

| Dimension | Question Number | Test | N | X̄ | SD | t-test | |
|---|---|---|---|---|---|---|---|
| | | | | | | t | p |
| Useful | Q8 | Pre | 35 | 2.86 | 1.16 | .81 | .42 |
| | | Post | 35 | 2.66 | 1.08 | | |

*p<.05

As table 22 revealed, no significant difference was found between pre- (M=2.86, SD=1.16) and post-test (M=2.66, SD= 1.08) scores of overall findings of useful perception of YLs. Therefore, it can be summarized that online education did not have any significant impact on YLs useful perception about English lessons (t=.81, p=.42>.05).

In the light of the findings above, it can be concluded that online education caused a significant decrease in YLs' overall perceptions based on the findings of LPQ which were analyzed through SPSS to investigate if there is a difference in YLs' perceptions about English lessons before and after the online education implementation.

## 4.2 Findings of Qualitative Findings

This section presents the findings of the qualitative data gathered from teacher-participant's reflective journals kept weekly which aimed to provide an insight to the research question four.

**4.2.1 Findings of the 4th RQ:** What are the perceptions of the teachers about teaching vocabulary online to young learners in 3rd grade English classes? The qualitative data collection source was the reflective journals kept by teacher researcher in each treatment week. After having an in-depth look into the journals, 5 reflective journal entries were analyzed inductively and 2 categories and 8 codes were found. As it is indicated in Table 23, most frequently occurring codes were found as lesson activities, classroom management and low participation.

Table 23

*Frequency Distribution of Codes sorted by Case- Reflective Journals*

| Category | Code | Count | %Codes |
|---|---|---|---|
| Issues the Teacher Faced | Lesson Activities | 7 | 16.57% |
| Issues the Teacher Faced | Classroom Management | 4 | 11.24% |
| Issues the Teacher Faced | Low Participation | 8 | 9.74% |
| Solutions the Teacher Found | Individual Meetings | 3 | 9.67% |
| Solutions the Teacher Found | Parent Involvement | 5 | 8.57% |
| Solutions the Teacher Found | Being Physically Active | 3 | 7.79% |
| Solutions the Teacher Found | Using Class Dojo Tool | 3 | 5.05% |
| Issues the Teacher Faced | Technical Problems | 2 | 2.26% |

The findings of teacher-researcher journal are analyzed under two sub-headings indicating perceptions about the difficulties the teacher had and the solutions that she found for each during the online education implementation. First, sub-factors of issues the teacher faced such as Lesson Activities, Classroom Management, Low Participation and Technical Problems demonstrated. After that, regarding the sub-factors of solutions the teacher found, which are Individual Meetings, Parent Involvement, Being Physically Active and Using Class Dojo Tool, were presented.

***4.2.1.1 Perceptions about lesson activities, classroom management, low participation and technical problems faced.*** The analysis of teacher journal revealed that YLs desired such kind of lesson activities that they could physically be active with the shift to OE. As a result, according to the journal, types of lesson activities played an important role to attract the attention of learners in the lessons. As it is evident from the reflected perceptions of the teacher, attention-grabbing interactive tools and materials were included in the syllabus of the course such as presentations, songs and online games (Kahoot and Bamboozle). Moreover, the teacher brought up the challenges of demotivation and unwillingness of learners, especially while teaching reading and writing skills of the language as indicated in the following excerpts:

[…] "Young language learners require TPR activities in the lessons. Since we are not physically together in a real classroom, I had to show some PowerPoints and videos to make them clear about the body parts of the dinosaurs during the week in online lessons. Time to time I let them listen to dinosaur's song, sing along and dance at the beginning and end of the lessons (Teacher, Reflective Journal, 01.01.2021).

[…] Some of them prepared some PowerPoints to present in front of their friends on Google Meet during the classes. Some of them took extra work videos related to the topic to watch in the lessons. I let them present their PowerPoints and videos. They enjoy sharing their screens and presenting their work. They feel motivated and enjoy classes when they do these kinds of activities. Most of the kids liked the topic a lot and concentrated on the lessons. They were eager to talk when the topic drew their attention (Teacher, Reflective Journal, 15.01.2021).

[…] However, when I think as a teacher, it is really hard to teach online to young language learners because I use TPR (Total Physical Response) activities a lot in my lessons to make the language clear and understandable for the kids. Since their attention span is really low, TPR is required in language classes. However, we are far away from each other, in a virtual environment, teachers need much more different tools to draw learner attention than they do in face-to-face classes." (Teacher, Reflective Journal, 29.01.2021).

Considering classroom management, it can be interpreted from the data gathered from the journal that the teacher researcher explained the difficulties she had faced to manage the classroom since there were a lot of distractions which made the lessons more challenging for the teacher. Therefore, the teacher occasionally had to intervene in order to ensure that each participant was ready to learn, which was time consuming, as it was mentioned in the journal by the teacher-researcher:

[…] “I have to say that having fully online classes to teach the foreign language was challenging for the first week. It was hard to manage the classroom because kids could talk without permission, so you need to set the classroom rules perfectly. They could turn their microphones on and talk whenever they wanted on Google Meet. Teacher could turn the microphone off; however, they could turn it on whenever they wanted without any permission from the teacher. Teachers only had control on turning the microphones off (Teacher, Reflective Journal, 01.01.2021).

[…] During the classes, some students wrote on the chat and talked to each other. Even though I warned them to listen to the lesson and not to write on chat, they kept writing and chatting, sending each other emojis. This distracted their attention from listening to their teacher and following the lesson carefully. There were lots of things which distracting their attention from the lessons (Teacher, Reflective Journal, 01.01.2021).

[…] There were also some students who talked without permission by turning on the camera and never listened to their friends while talking. It was really hard to conduct the lessons, under all these circumstances. I spent at least 10-15 minutes to get them ready for the class, turn their cameras on.” (Teacher, Reflective Journal, 15.01.2021).

In terms of low participation, the statements of the teacher revealed that participation of learners decreased dramatically through the end of the implementation of online education although there were some students who could actively keep up with the schedule and the lessons. Some of the YLs rejected to join the lessons by turning off their cameras or microphones or simply disappearing from the screen. It, therefore, means that online education couldn’t increase, but decrease participants’ involvement and engagement to the lessons, as is evidenced in the following excerpts:

[…] “Moreover, kids turned off their cameras when they were busy with something else during the classes. For example, one of the students was lying over the bed and playing on the phone that’s why he turned off his camera. I called his name many times but he didn’t answer (Teacher, Reflective Journal, 08.01.2021).

[…] Moreover, there was another student who never talked whose camera was always on, but he rejected to talk and answer in any way. He was showing the ceiling not himself on the camera. He was like a ghost and his parents knew the situation (Teacher, Reflective Journal, 08.01.2021).

[…] Furthermore, I realized that some kids were playing games during the classes or watching videos on the other page. Their attention could be on something else very often (Teacher, Reflective Journal, 22.02.2021).

In terms of technical problems, the teacher-researcher brought up the issue of technical incompetence that participants and the teacher herself experienced.

[…] "It was a really tough week for me. Sometimes some kids had electric or internet connection problems and couldn't come to lessons or they came late (Teacher, Reflective Journal, 08.01.2021).

[…] Similarly, sometimes some kids had electric or internet connection problems and couldn't come to lessons or they came late time to time." (Teacher, Reflective Journal, 15.01.2021).

To sum things up, it can be stated that the YL participants and the teacher faced considerable issues for five weeks of OE implementation especially in learner participation, managing the class and establishing lesson activities. However, in terms of perceptions about technological inconvenience, she did not experience great issues.

***4.2.1.2 Perceptions about individual meetings, being physically active, parent involvement and using Class Dojo Tool.*** Considering the teacher's perceptions about OE in the reflective journal, it can be claimed that teacher stated the solutions she found for the issues she encountered during OE implementation. It was stated in the teacher reflective journal that some of the students didn't have motivation and eagerness to participate to the classes; that's why, they rejected to communicate in classes. The most frequently applied solution to this issue was individual meetings which were arranged by the teachers to meet and talk to the students who had disruptive behaviors or low motivation to participate during the OE implementation as it is indicated in the following excerpts:

[…] "The next day, I asked him to talk during the break time alone. He said yes. When I asked him why he turned his camera and not participate the lessons, he said: "I don't like online classes, I want face to face lessons. I miss my school and I want to play with my friends. ". I tried to convince him to participate by talking for ten minutes on Google Meet. I said "Because of pandemic, we can't go to school and online education is our only option. As a teacher, online education is difficult for me too, but we need to learn and have our lessons. You can talk to your friends during the break time on Meet, you can chat and play games together." (Teacher, Reflective Journal, 08.01.2021).

[…] We had an online meeting on Google Meet with the student who turned off the camera and never answered us. She joined the meeting with the permission of her mother. We asked her what's wrong and she said: "I feel bored and don't want to join online lessons. I don't like online lessons and I want to go to school.". We tried to convince her and said "We feel the same, but this is not helping. You need to participate and we need to see you. You should turn on your camera to have a healthy communication with your friends and teachers." (Teacher, Reflective Journal, 15.01.2021).

[…] After a while, talking to them individually did not work because they didn't respond." (Teacher, Reflective Journal, 29.01.2021).

The second frequently mentioned solution was letting YLs to be physically active during the online classes. Since each child is unique and has different learning styles, teacher researcher encouraged them move when in need; this contributed YLs to focus more and be more engaged in lessons as stated in the journal by the teacher:

[…] "When you feel bored, you can stand up and move around the room, but please try to focus." And she said ok. She was better during the second half of the week, but sometimes she turned off the camera and need some individual instruction to turn it on (Teacher, Reflective Journal, 15.01.2021).

[…] To find a solution, I let them move during the classes, because I know that sitting still for 35 minutes is really hard for eight-year-old students. Sometimes they went somewhere else and I could not see them in front of the camera, for a while I let them do it. However, when they didn't come back, I called them and asked them to come back (Teacher, Reflective Journal, 29.01.2021).

[…] There was a student who was jumping on the bed during the lessons, whenever I asked him a question, he could answer it correctly. I realized that he concentrated on the lesson while moving around, so I didn't tell anything bad about his movements. Day by day he participated lessons more and more motivated. Therefore, I realized that each student is unique and has different learning styles." (Teacher, Reflective Journal, 29.01.2021).

Since the YLs and the teacher were physically away from each other, parent involvement was needed in terms of reaching and having a healthier communication with the learners. While taking parts in classroom management from the perspectives of parents led to some problems between themselves and their children, teacher made use of this not to lose her students' attention and motivation during OE implementation as indicated in the reflective journal:

[…] Since we were away from each other, it was really hard to keep in touch with the kids. We needed parents' or babysitter's help all the time because they were at home with the kids. Most of the parents were not at home since they were working, so kids took advantage of these situations and they ignored what teachers and their parents asked from them (Teacher, Reflective Journal, 08.01.2021).

[…] Her mother also told us that she feels so bored and demotivated about online classes. Also, she was not eager to attend the classes at all (Teacher, Reflective Journal, 15.01.2021).

[…] I called their parents and asked them to check their kids during online classes not to be engage in something else. We needed parents' control over the students since we were away from the kids. Parents also told us they felt like they were the teachers in the house. They were right because we really needed their help and support during the online education." (Teacher, Reflective Journal, 22.01.2021).

The last solution implemented by the teacher researcher was using an interactive tool 'Class Dojo' which was used as a way of positive reinforcement to make YLs to behave good and follow the rules in the class. Although most of them were really interested to change their avatars by earning more points at the beginning of OE implementation, they lost their willingness to earn more points through the end as is evidenced in the reflective journal in the following excerpts:

[…] "I used class dojo tool to set the class rules. They could get plus or minus for their behaviors. When they had 35 points, they changed their avatars. This tool helped me to manage them, I rarely gave minus not to demotivate them with negative reinforcement (Teacher, Reflective Journal, 01.01.2021).

[…] I tried to motivate these students by using Class Dojo as a positive reinforcement; however, it didn't work. They did not care about earning points and changing the avatars (Teacher, Reflective Journal, 08.01.2021).

[…] . I used Class Dojo a lot to motivate them. Some of them were really interested and having lots of extra works to earn more points and change their avatars. However, some of them didn't even try for it**.**" (Teacher, Reflective Journal, 15.01.2021).

To sum up, the teacher researcher came up with couple of solutions to the issues she encountered during OE such as individual meetings, being physically active, parent involvement and using Class Dojo Tool. While arranging meetings with YLs, involving parents and letting them physically active contributed to manage the classroom easily and also to avoid destructive behaviors in lessons, implementing Class Dojo tool wasn't helpful at some points.

# Chapter 5
# Discussion and Conclusion

## 5.1 Discussion of Findings for Research Questions

The purpose of the study was to investigate the effects of online education via Google Meet on young learner's vocabulary development, autonomy with the use of a Web 2.0 tool, Google Meet, as well as the perceptions of the students and teacher about the implementation of online education in EFL classrooms. Data were triangulated through quantitative and qualitative data tools to suit the study's aims. The data were collected by means of quantitative and qualitative data instruments, pre-and post-questionnaires, reflective teacher journal kept by the teacher-researcher. The results of vocabulary knowledge tests demonstrated a significant improvement between pre- and post-test scores as a result of the implementation. In addition, learner perception questionnaire results indicated that online education led to a significant decrease in YLs perceptions about online education. Based on the results of reflective journal kept by the teacher, it was concluded that perceptions online education doesn't have positive effects on YLs and teacher perceptions. However, the results of the learner autonomy questionnaire revealed no significant differences in learner autonomy levels before and after the online education implementation.

**5.1.1 Discussion of the findings for the RQ1:** Does Google Meet as a Web 2.0 tool have any effect on the vocabulary development of Young Learners (YLs) of English (3rd grade, primary level)? The purpose of this research question was to see if there was a significant difference in vocabulary knowledge of YLs as a result of online implementation. The findings of VKT indicated that students' overall vocabulary knowledge increased as a result of the implementation when pre-and post-test results were compared. That is, implementation of online education through Google Meet had a positive effect on the general vocabulary performance of YLs. These findings are in line with the study by Alipour (2020) which revealed that online education had a positive impact on EFL learners' vocabulary enhancement. In addition, Bağatur (2019) carried out an experimental study to investigate the impacts of web-based-corpus on using vocabulary learning strategies and vocabulary size improvement at two state universities and found out that vocabulary performance of learners was affected positively as a result of using web-based corpus. Similarly, Dinçer (2014) researched the impacts of social media networking on young adult learners' vocabulary learning and concluded that social media networking is much more effective on acquiring the target vocabulary items than conventional methods. Another study by Tasa (2020) conducted research in a similar situation to investigate the effects of an online platform on adult EFL learners' vocabulary improvement. The study emphasized the importance of using online web tools to help learners remember and recall new vocabulary when it is needed (Tasa 2014). Finally, in a similar vein, Yunus et al. (2016) examined CALL integration in vocabulary learning to investigate if it has any effect on EFL learners' vocabulary knowledge. In other words, it examined the effectiveness of a CALL-based technique on EFL learners' English vocabulary knowledge. The findings revealed that CALL users profited from it, and that a CALL-based strategy could significantly improve EFL learners' English vocabulary ability.

In brief, YLs improved their vocabulary knowledge as a result of online education implementation. YL's achievement in vocabulary was positively influenced by online education.

**5.1.2 Discussion of the findings for the RQ2:** Does using Google Meet have any effect on the autonomy level of YLs? This research question was aimed to find out whether online education had any impact on YLs autonomy levels. Based on past research on online education and learner autonomy, it is possible to conclude that this study provided different outcomes than earlier research. A study carried out by Kömeç (2018) investigated that students had generally positive opinions regarding flipped classrooms and saw themselves as independent learners. Similarly, another study by Mısır (2017) indicated that learners who took online language classes were found to be extremely independent and willing to take control of their learning; yet, they did not consider the presence of teachers to be unnecessary, and they preferred learner autonomy and learner-centered lessons in the process. Also, the findings of the study which was carried out by Mutlu (2008) demonstrated that computer-aided trainings encouraged learners to take responsibility for their own learning and assisted them in motivating themselves to employ positive language learning practices.

On the contrary, the findings of ALQ revealed no significant difference in YLs autonomy levels as a result of online education implementation in the current study. In terms of underlying causes, certain reasons that may have influenced the findings of this study could be based on previous research.

First of all, learners' perceptions may have influenced their responses to the survey. As Ceylan (2015) claimed that students cannot demonstrate autonomy when they see their teachers as the authority in the classroom. Similarly, Dafei (2007) found no significant variations in learner autonomy when students' English competence is not considerably different, which is comparable to the situation in this study because the students were all at the same English proficiency. Another study by Zonturlu (2014) indicated that learners considered their teachers more in charge during the process. Furthermore, learners also may see their parents as supporters and authorities in their learning especially in online education. According to social constructivist theory, children learn new things through their experiences, and parents are crucial in moulding that knowledge through appropriate actions (Vygotsky, 1978). The study by Dinç & Dollar (2017) showed that parents play an important role in their children's language development and learning.

Additionally, Sinclair (2000) defined learner autonomy as a competency model that combines learners who seem to be willing to take self - directed learning. Therefore, different results in the present study could have been caused by student motivation. In the same vein, Tassinari (2012) defined autonomy as a continuous term, with varying results on learners depending on time and sub-categories. Also, for Candy (1991), an autonomous learner, is dedicated, open, agile, collaborative, and highly engaged. All in all, these considerations revealed that learners' motivation may have changed over time or they may have lacked the required capabilities described previously, leading to various of learner autonomy findings.

Lastly, in the current study, the learning setting could have influenced the results. Lessons were conducted through online resources throughout this research due to the unexpected turn of a global pandemic. This may have caused less influence over the learning environment regarding learner autonomy. Learner autonomy, according to Benson (2011), can be described as control over the educational environment across three components: cognitive functioning, and educational context, learning control. Moreover, the type of learner autonomy may have let to different results in previous research in the present study. According to Benson (2010), learner autonomy is a multi-faceted and diverse notion, claiming that additional practical study is needed to fully understand its principles. As a result, even while validity and reliability are ensured through statistical tests and expert engagement, learner autonomy quantitative instruments may not be as consistent as predicted (Reinders, 2010).

In brief, reviewing the existing literature on technology integration and learner autonomy, it is possible to conclude that the findings of this study differ from those of the previous literature. There was no significant difference between pre- and post- learner autonomy levels of YLs as a result of online education implementation. This type of study could be done in a different educational setting and on a larger scale in this case to show more comprehensive results.

**5.1.3 Discussion of the findings for the RQ3:** What are the perceptions of YLs about learning vocabulary online via Google Meet in 3rd grade English classes? This research question aims to find out the perceptions of YLs towards online education implementation by gathering quantitative data through pre- and post- tests of learner perceptions questionnaire. Given the overall results, it can be indicated that online education made a significant difference in YLs' perceptions of online education. The findings also concluded that YLs' overall perceptions decreased considerably before and after online education with Google Meet. Furthermore, YLs had lower scores in terms of all criteria: interest-enjoyment, willingness, participation, perceived competence and useful as well as overall perceptions as a consequence of implementation.

This study's findings are consistent with previous research regarding learners' perceptions towards online education. According to Slechtova (2015), learners may have different perceptions about technology depending on their interests and abilities. Therefore, teachers should take these individual differences into consideration. Moreover, the results of the study carried out by Wong and Fong (2014) which was aimed to investigate students' attitudes towards traditional and online education, as well as the value of technology use. The findings of the study revealed that students tend to perceive traditional education more beneficial and effective than online education. In the same vein, Altunay (2019) carried out a study in EFL context and the findings revealed that students preferred face to face classes despite the flexibility of online education and were not happy and motivated because of the lack of equipment and technological convenience which they experienced during online lessons. Furthermore, the study also indicated that learners did not find online lessons as effective as face-to-face courses. Çakir and Solak (2014) also found in their study that learners experienced anxiety and they were not willing when studying, which affected their academic performance. Similarly, a study was performed with EFL students through a questionnaire to investigate what attitudes the learners have towards online courses revealed that students pay little attention to online courses.

Additionally, student participation in face-to-face education is well known, but this relevance is less well acknowledged in online education (Louwrens and Hartnett 2015). Prensky (2001) defined today's children as "digital natives" who are born in a world with high technology. Therefore, learner participation plays a vital role to be able to learn to be satisfied in online education (Martin and Bolliger, 2018). Moreover, according to Dixson (2015), student engagement is vital in online education because students often feel alone and separated from school. The study by Kör (2021) also indicated that students frequently complained about the lack of engagement in online education. Their interactions with their classmates are severely constrained. Finally, another study by Susanti (2020) revealed that EFL students struggled with aiding their peers, conveying their views, and being fearful of making a mistake while participating during online courses.

All in all, this study is in accordance with the existing literature that emphasize the decrease in learners' perceptions towards online education. In this respect, it may be stated that this study backs up the findings of previous research which favor the online education to increase their perceptions in a positive manner.

**5.1.4 Discussion of the findings for the RQ4:** What are the perceptions of the teachers about teaching vocabulary to YLs via Google Meet? This research question aims to clarify the perceptions of the teacher as to the implementation of the online education. The teacher-researcher indicated two major perceptions in the reflective journal as: the issues the teacher faced which were lesson activities, classroom management, low participation and technical problems and the solutions she found which were individual meetings, parent involvement, being physically active and using Class Dojo tool. According to reflective journal, the teacher- researcher let YLs to move around during the classes and had interactive activities to engage them more in lessons during the online education implementation.

According to Mondol & Mohiuddin (2020) education stakeholders have been reporting issues in the online education process as a result of the abrupt shift from face-to-face to online education, virtual and live classes Similarly, the teacher stated that with a sudden shift from face-to-face education to online education, YLs preferred instructional activities that allowed them to be physically active. As a result, types of lesson activities played a vital part in attracting students' attention to the lessons. The course syllabus includes attention-grabbing interactive tools and resources, as evidenced by the teacher's observed perceptions. Selecting activities that students are interested in and find entertaining has a significant impact on enhancing student engagement (Louwrens and Hartnett, 2015). The findings of the study by Bayburtlu (2020) emphasized that teachers should receive in-service training on how to prepare e-content and both teachers and students should be provided with connection.

Furthermore, the teacher mentioned the difficulties of demotivation and unwillingness among students, particularly while teaching language reading and writing abilities. Also, since there were numerous distractions which made the lessons more challenging for the teacher. Therefore, the teacher occasionally had to intervene in order to ensure that each participant was ready to learn, which was time consuming. (Mukhtar et al., 2020) mentioned the same issues by indicating that children had a lower attention span in online classrooms than in traditional classes, underlining the importance of establishing ground rules for online classes to prevent unwanted or unexpected occurrences. It was also revealed that teachers and students claimed that online education was ineffective in terms of teaching and learning practical activities.

According to the records of the teacher, most of the learners' participation decreased dramatically through the end of the implementation of online education although there were some students who could actively keep up with the schedule and the lessons. Hence, it was evident that online education couldn't increase, but decrease participants' involvement and engagement to the lessons. Balcı (2021), Bayburtlu (2020) and Canpolat & Yıldırım (2021) clarified that live classes decreased the interaction between students and teachers and also learner participation. Similarly, Louwrens and Hartnett (2015) indicated that low student engagement is due to teachers' lack of participation in activities. It implies that instructor involvement is just as important as student involvement. Based on the reflective journal, the teacher arranged individual meetings with YLs to make them more engaged in lessons and used Class Dojo tool to motivate them.

Additionally, both YLs and the teacher encountered technical incompetence, according to the teacher-researcher. It is obvious that there are a number of studies which revealed that students and teachers had technological issues with the internet or electronic devices, which was a perceived challenge encountered by both teachers and students, especially in online classes (Balcı, 2021, Bayburtlu, 2020, Canpolat & Yıldırım, 2021, Duman, 2020, Mukhtar et al., 2020, Pınar & Dönel Akgül, 2020).

In a nutshell, the purpose of this study was to look into teachers' perceptions towards online education. The teacher found implementing online education challenging in the online setting under the severe pandemic conditions. Finally, it was stated in the reflections that implementing online education was challenging and required much effort and ended up with exhaustion for the teacher.

## 5.2 Conclusion

The purpose of this study is to contribute to the existing literature by examining the effects of online education via Google Meet on 3rd grade YLs vocabulary development and autonomy levels and explore YLs perceptions, also their teacher's, towards online education. Quantitative data gathered through vocabulary knowledge test indicated that online education contributed to YLs' vocabulary performance. These findings are encouraging in that online education can make writing an effective experience for both the teacher and the YLs. The results of learner perception questionnaire collected before and after the online education implementation stated that there was a significant difference in YLs' perceptions in terms of interest-enjoyment, willingness, participation, perceived competence and usefulness. That is, online education decreased YLs' perceptions towards English lessons as a result of online education. However, there was no significant difference between the pre- and post-implementation on the learner autonomy questionnaire. Although the study found no significant differences between the groups, it should not be forgotten that with additional training, students would be able to achieve higher levels of autonomy in the future. Furthermore, qualitative data findings gathered through reflection journal kept by the teacher-researcher revealed the perceptions of the teacher towards online education in terms of the problems the teacher encountered and the solutions found during the online education implementation. Finally, it can be concluded that online education can be used to improve YLs’ vocabulary and influence their perceptions toward online education through Google Meet.

### 5.3 Pedagogical Implications and Recommendations for Further Research

There are various recommendations and implications for future research in the current study. The present study was conducted with a small sample of students (35 students). Further research could be carried out with a bigger sample size to better generalize the study's findings. Secondly, the time allotted for students to become familiar with online education might be increased so that student adaptability is minimized. Thirdly, data collection in online education could lead to teacher exhaustion because it is almost impossible to reach YLs who are far away in front of their computer. As a result, overall student control may be challenging, and students need to be encouraged to participate to the lessons. This could be solved with parental support as it was in the present study. Next, only 3rd grade YLs participated in the current study. Hence it may be suggested that employing a larger sample of varying proficiency levels may be much better for the validity and reliability of future research. Finally, it should be underlined that learner autonomy is a wide concept that is difficult to quantify and examine fully. Furthermore, learner autonomy is not limited to a single context or to the acquisition of language skills. As a result, it is difficult to eliminate confounding variables in quantitative analyses of learner autonomy, including the qualitative data tool in order to gain a thorough understanding of the nature of learner autonomy. Nevertheless, since it is reliant on students who may or may not be autonomous during data collection, determining the nature of learner autonomy is a difficult task. Learners, especially YLs, may be unaware of their autonomous potential, which could have an impact on the study's findings. Before collecting quantitative and qualitative data, students might be trained to understand the nature of learner autonomy to eliminate this factor.

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