



T.R

BURSA ULUDAG UNIVERSITY

INSTITUTE OF EDUCATIONAL SCIENCE

FOREIGN LANGUAGES TEACHING DEPARTMENT

ENGLISH LANGUAGE TEACHING

**THE EFFECT OF COMPUTER ASSISTED FOREIGN LANGUAGE
LEARNING VIA AMERICAN SIGN LANGUAGE ON VOCABULARY
LEARNING OF INDIVIDUALS WITH HEARING IMPAIRMENT**

MASTER'S THESIS

Çağla Deniz PULAT

0000-0003-1208-7425

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Thesis Advisor

Prof. Dr. Esim GÜRSOY

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BİLİMSEL ETİĞE UYGUNLUK

Bu çalışmadaki tüm bilgilerin akademik ve etik kurallara uygun bir şekilde elde edildiğini beyan ederim.

Çağla Deniz PULAT



EĞİTİM BİLİMLER ENSTİTÜSÜ
YÜKSEK LİSANS/DOKTORA BENZERLİK YAZILIM RAPORU

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Tez Başlığı / Konusu: AMERİKAN İŞARET DİLİ YOLUYLA BİLGİSAYAR DESTEKLİ YABANCI DİL ÖĞRENİMİNİN İŞİTME ENGELLİ ÖĞRENCİLERİN KELİME ÖĞRENİMİ ÜZERİNDEKİ ETKİSİ

Yukarıda başlığı gösterilen tez çalışmamın a) Kapak sayfası, b) Giriş, c) Ana bölümler ve d) Sonuç kısımlarından oluşan toplam 45 sayfalık kısmına ilişkin, 28/08/2022 tarihinde şahsım tarafından “Turnitin” adlı intihal tespit programından (Turnitin)* aşağıda belirtilen filtrelemeler uygulanarak alınmış olan özgünlük raporuna göre, tezimin benzerlik oranı %7’dir.

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“Amerikan İşaret Dili Yoluyla Bilgisayar Destekli Yabancı Dil Öğreniminin İşitme Engelli Öğrencilerin Kelime Öğrenimi Üzerindeki Etkisi” adlı Yüksek Lisans tezi, Bursa Uludağ Üniversitesi Eğitim Bilimleri Enstitüsü tez yazım kurallarına uygun olarak hazırlanmıştır.

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ÖZET

Tezin Adı : Amerikan İşaret Dili Yoluyla Bilgisayar Destekli Yabancı Dil Öğreniminin İşitme Engelli Öğrencilerin Kelime Öğrenimi Üzerindeki Etkisi

Ana Bilim Dalı : Yabancı Diller Anabilim Dalı

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AMERİKAN İŞARET DİLİ YOLUYLA BİLGİSAYAR DESTEKLİ YABANCI DİL ÖĞRENİMİNİN İŞİTME ENGELLİ ÖĞRENCİLERİN KELİME ÖĞRENİMİ ÜZERİNDEKİ ETKİSİ

İşitme engelli veya işitme güçlüğü çeken bireylere altyazılar ve Amerikan İşaret Dili aracılığıyla İngilizce kelime öğretme web araçlarının rolünü araştırmak için çok az çalışma yapılmıştır. Bu araştırma, işitme engelli bireyler için özel olarak tasarlanmış ve öğretim aracı olarak Amerikan İşaret Dili ve altyazıları kullanan bir web aracının rolünü araştırmak için 27 işitme engelli katılımcı arasında yürütülmüştür. Öntest-sontest karma yöntem çalışması olarak tasarlanan, katılımcıların kelime kazanımlarını belirlemek için hem nicel hem de nitel veriler toplanmıştır. Veri toplama araçları, bir ön test ve bir son test (toplam 21 sınav) ve katılımcılarla yapılan görüşmelerden oluşmaktadır. Nicel bölümün sonuçları, katılımcıların başarı oranı açısından ön test ve son testte anlamlı bir farklılık olduğunu göstermiştir. Araştırma ayrıca cinsiyetleri de karşılaştırmıştır, ancak kadınların biraz daha fazla başarı oranına sahip olduğu tespit edilse de anlamlı bir fark bulunamamıştır. Son olarak, nitel bölümün sonuçları, kısa sınavların soru sayısı, videoların zaman ve mekân açısından esnekliği ve web sitesinde etkileşimin olmaması gibi çeşitli görüşleri ortaya çıkarmıştır.

Anahtar sözcükler: Amerikan İşaret Dili, altyazılar, İngilizce kelime bilgisi, internet sitesi, sağır için İngilizce yabancı dileğitimi, sağır, sağır ve işitme yetersizliği, teknoloji

ABSTRACT

Tezin Adı : The Effect of Computer Assisted Foreign Language Learning via American Sign Language on Vocabulary Learning of Individuals with Hearing Impairment

Ana Bilim Dalı : Foreign Language Teaching

Üniversite Adı : Bursa Uludağ University

Enstitü Adı : Institute of Educational Sciences

Tez Kabul Tarihi :

Danışmanı : Prof. Dr. Esim GÜRSOY

THE EFFECT OF COMPUTER ASSISTED FOREIGN LANGUAGE LEARNING VIA AMERICAN SIGN LANGUAGE ON VOCABULARY LEARNING OF INDIVIDUALS WITH HEARING IMPAIRMENT

Very few studies have been conducted to investigate the role of webtools that teach English vocabulary via subtitles and American Sign Language to deaf or hard-of-hearing (DHH) individuals. The present research is conducted among 27 DHH participants to investigate the role of a webtool that is specifically designed for DHH individuals and utilizes American Sign Language (ASL) and subtitles as teaching tools. Designed as a pretest-posttest mixed method study both quantitative and qualitative data were collected to identify the vocabulary gains of the participants. Data collection tools constituted a pretest and a posttest quizzes (21 quizzes in total) and interviews with the participants. The results of the quantitative part indicated a significant difference on the pretest and posttest in terms of success rate of the participants. The research also compared genders however, no significant difference was found eventhough females were found to have a slightly more success rate. Finally, the results of the qualitative part revealed various opinions in relation the attractiveness of the quizzes, number of questions and flexibility of the videos in terms of time and space, and the lack of interactiveness on the website.

Keywords: American Sign Language, ASL, deaf, deaf and hard of hearing, DHH, EFL teaching for the subtitles, English vocabulary, technology, website

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List of Abbreviations

ASL	: American Sign Language
CASP	: Computer-Assisted Simultaneous Prompting
DHH	: Deaf or hard-of-hearing
EFL	: English as a Foreign Language
SDH	: Subtitles for the deaf and hard-of-hearing
TSL	: Turkish Sign Language
TPSP	: Teacher-Provided Simultaneous Prompting
WFD	: World Federation of Deaf

CHAPTER 1

Introduction

1.1. Introduction

Education is an important element in one's life (Takahashi et al., 2017). Yet, according to the World Federation of the Deaf (WFD, 2003), there are approximately 70 million deaf individuals globally, and unfortunately, the majority of them are illiterate or semi-illiterate. Although literacy is an important factor of receiving information (Coleman et al., 2015), many studies show that deaf or hard of hearing (DHH) students fall behind in literacy four to five years when compared to their hearing peers (Dimling, 2010; Easterbrooks & Stoner, 2006, p.95; Lederberg & Spencer, 2001; Luckner & Cooke, 2010; Luckner et al., 2005; Nelson & Welsh, 1997; Marshark & Spencer, 2010; Qi & Mitchell, 2012). Probably due to their relatively small size in society, DHH individuals' needs are neglected in the education field (Untari et al., 2013). Moreover, findings of studies suggest that unemployment is very common among deaf adults (WHO, 2019), due to lack of proper educational strategies (Shimmel & Edwards, 2003).

Just as DHH individuals have the right to access to proper education, they also have the right to have access to foreign language education. As foreign language literacy is expected in many levels of academia and because English is the lingua franca (Crystal, 2006; Mauranen, 2003; Seidlhofer, 2013), the foreign language expected generally is English. The English language offers an expanded context of information and knowledge. As information is mostly available in English in many various areas and communication can be carried out in English throughout the world because English is the most popular language among the others (European Commission, 2017).

1.2. Statement of the Problem

According to Marschark & Spencer (2010:96), deaf children lack the similar level of vocabulary compared to their hearing peers; therefore their language abilities may suffer. Classroom teaching time may not be as sufficient as it is desired to be. To be able to find a solution, extracurricular activities can be increased.

It is claimed that hard of hearing individuals are able to learn in a similar manner as hearing individuals, but, they need additional assistance (Paul & Lee, 2010). Technology can step in to maximize the exposure time as they are found to be the most common means of additional teaching tools (Sousa, Ferreria & Rodrigues, 2019). Teachers and learners can make use of websites or apps specifically designed for vocabulary education, and better yet

they can benefit from those that are specifically designed for deaf education. Yet, there are important factors to consider while designing a special program for deaf vocabulary education or teaching model. Lorenzo (2010) claims that learners can benefit from simplified linguistic variation and Lorenzo and Pereira (2011) advise usage of common vocabulary and Neves (2009) advises usage of simple vocabulary. Many studies utilize subtitles, according to Bisson et al. (2014), learners pay attention to both visuals and subtitles and therefore make use of both channels.

Developing vocabulary is an essential first step to language learning as “knowing high frequency of words gives a person a good start to further language learning” (Cavaletto, 2015). In addition, sign languages make use of vocabulary the most, it is highly important for DHH individuals to start language learning vocabulary. When teaching vocabulary, teachers should make use of body movements and materials such as flash cards. Conversely, this type of an education is mostly limited to classroom time. With the help of the technology, DHH individuals have a chance to continue learning even at the comfort of their own homes. The advantage of using technology is not limited to its flexibility in time and space but also the number of practices they can make. In a classroom, the time is limited, and also in a traditional classroom there are approximately 20 students, and it is overwhelming and time consuming for teachers to explain the same vocabulary or grammatical points again and again. Technology also has a natural attractiveness to it because it is used in our daily lives for a variety of purposes, therefore, students may feel more motivated using technology for educational purposes. And lastly, students are able to choose the content which interests them the most, and this may contribute to how much time and effort they invest in the learning process. In conclusion, vocabulary acquisition and usage of technology may contribute greatly to the rate and quality of the learning process and lack of efficient vocabulary teaching or usage of technology may harm the learning process.

1.3. Research Questions

The following research questions will guide the study to find answers about the vocabulary learning manners of deaf learners:

1. How effective is the computer-aided English language teaching via American Sign Language to improve the knowledge of English vocabulary of deaf or hard-of-hearing individuals?

2. What are the views of the deaf or hard-of-hearing individuals on technology integrated vocabulary learning via American Sign Language (ASL) as a means of teaching method?

1.4. Statement of Purpose

As the lingua franca in the world is English, it is no surprise that American Sign Language (ASL) is one of the most used sign languages across the globe (Nicola, 2009). Correspondingly, this fact forms the framework of the study. While the people with the hearing disabilities are having a struggle with mastering language in the first place, it requires a compatible approach to introduce the pupils to another form of language, in this case, American Sign Language. Also, the curriculum in deaf schools does not include compulsory English lessons in Turkey (Birinci & Saricoban, 2021). Presently, it is prevalent to use personal computers or mobile devices to satisfy the fundamental exigence for information, education, communication, entertainment, socializing et cetera. Consequently, technological devices have been used as an enormous part of society. Today's world has got rid of irreplaceable hard copy materials of the previous era to some extent and offers a wide range of virtual sources instead. For this reason, the research is going to be conducted as a computer/web-based program that consists of videos, subtitles and sign language. The role of computer-aided approach will be examined as well. And learners will be asked to answer questions about the procedure to have a better understanding of the language learning program for DHH adult learners.

The purpose of the study is to develop the vocabulary knowledge of DHH adult students in the English language via the use of ASL and a web-tool.

1.5. Significance of the Study

At the present time, English is being used as a lingua franca across the globe. People around the world have been using English for diverse motives including various career opportunities, education, entertainment, liaison, portability and access to global information. All of the aforementioned reasons constitute an important factor in learning a foreign language today. However, it is a well-known fact that the individuals with hearing disabilities are trying to cope with harsher obstacles in the matter of learning another language in a verbally active educational structure. In the same way it makes it challenging for them to be able to orientate both the educational system and the society. Yet, it is already a handicap learning in their own vernacular. Therefore, it is momentous to be aware of the issues that have been faced with and conceive a solution accordingly. The most crucial reason for this

study to be implemented is that Turkey remains inadequate to fulfill the needs of the deaf in terms of teaching essential English vocabulary as English lessons are not compulsory. However, English is the primary language of the internet that allows people to access information.

Deaf students are having trouble with learning/using the language amongst their peers because they feel insecure (Barker, 2003). Therefore, present study makes use of additional (outside of the classroom) sources in order to offer deaf students a comfort zone where they would not feel judged or stressed in the course of the learning process.

In conclusion, the study aims to shed some light to the field regarding the foreign language education for deaf learners.

1.6. Assumptions

There are three assumptions to the study. Firstly, the participants do not know English or the vocabulary that is presented during the procedure. Secondly, they participate regularly to the procedure. Finally, they only answer if they know the answer.

1.7. Limitations of Study

Limitation to the study is that the participants are all adult learners as it is hard to work with young learners due to their limited literacy skills in their first language. The study aims to shed light on the vocabulary learning of deaf adult learners only.

1.8. Definitions of Key Terminology

Sign language: Communication can be verbal and/or non-verbal. In some sources, communication types are divided into three groups as verbal, non-verbal and written, and in others, electronic communication is added to these and divided into four groups (Karaca, 2018). The most widely used type of communication among people is verbal communication based on hearing and speaking. However, individuals with a speech or hearing disability cannot fully use this verbal communication. Sign language is defined in the dictionary of the Turkish Language Association as "the visual language created by the hearing impaired by using hand and facial movements while communicating with each other" (Eryigit, 2017, p.5). Sign languages are naturally developed languages such as English, Russian, German, French and Turkish. The point where sign languages differ from these languages is that they are not spoken languages, but sign languages. These languages are expressed by using hand and body movements and facial expressions often simultaneously. Expressing it this way is called "marking". Just like spoken languages, sign languages are naturally formed languages among the people who use them. For this reason, sign languages also have the feature of being a

natural language (Eryiğit, 2017). Although sign languages are as old as spoken languages, it is thought that they emerged later because scientific studies on sign languages were conducted late. (Arik, 2013).

American Sign Language (ASL): American Sign Language (ASL), is a natural sign language used by deaf communities in the United States and Canada. It is also used by communities in West Africa and Southeast Asia, along with its dialects and ASL-derived creoles (Burke, 2017). ASL, thought to be a creole of French sign language, developed as a result of language interaction at the American School for the Deaf, a school for the deaf located in Connecticut in the eastern United States. ASL grammar is not associated with English and is considered a foreign language by educational institutions in various states.

Computer-aided: Technology, which is widely used in our homes, workplaces and schools today (Hirshbuhl & Bishop, 2003), is also the basic tool in accessing, using, producing, sharing and disseminating information. Computers are at the forefront of the most advanced tools that enable us to access information (Halis, 2002). Today, computer technology, which is included in our lives in every field, is also widely used in the educational environment (Halis, 2002; Rilling, 2000). The great steps taken in technological developments in recent years have also led to the frequent use of computer technology in schools by educators. Many educators, including foreign language experts that use computer software, started to take part in the development of the software for education (Kenning & Kenning, 1990).

Deaf or Hard-of-Hearing (DHH): Hearing loss is differentiated in two different ways as medical and sociocultural. Medically, hearing loss is defined as a pure hearing threshold average of 25 dB (decibel) HL (hearing level) in adults and 15 dBHL in children at sound frequencies between 500-4000 Hz (Rilling, 2000). Hearing impairment is similar but not the same as the category of deafness. The Education Act for Persons with Disabilities (IDEA) defines hearing impairment/impairment as "a permanent or fluctuating hearing impairment that adversely affects a child's educational performance but is not included in the definition of deafness". A hearing loss above 90 dB is generally considered deafness. This also means that a hearing loss below 90 dBHL is classified as a hearing impairment.

CHAPTER 2

Literature Review

“Words are the starting point. Without words, children cannot talk about people, places, or things, about actions, relations, states” (Clark, 1995, p.4). Although to be able to use a language fluently or accurately the vocabulary knowledge alone is not sufficient, knowing average of 150 words is claimed to be enough to increase the rate of the acquisition of the new words and grammatical skills by Marchman and Bates (1994).

2.1. Vocabulary Learning in the Field of Foreign Language Learning

During the foreign language learning process, vocabulary learning is an important part especially for DHH students. Individuals with hearing impairment can acquire linguistic structures, writing and reading skills which require adequate vocabulary knowledge (Birinci & Saricoban, 2021). Moreover, vocabulary knowledge gives a person independence of literacy especially “poor reading skills are still an issue for deaf students” (Alqraini, 2018, p.61). Besides, according to Easterbrooks & Stoner (2006, p.95), literacy skills such as reading and writing are also important for “one’s potential academic and vocational success”. When it comes to literacy skill, vocabulary is thought to be one of the most influential components of a language (Braze et al., 2007; Oullette & Beers, 2010). In addition, learning vocabulary is crucial for “solitary activities such as watching television and reading” (Jensama et al., 1996).

However, studies show that the vocabulary size of DHH students are relatively small compared to their hearing peers (Luckner & Cooke, 2010), maybe because the delayed exposure to language (Fung et al., 2005; Massaro & Light, 2004). Additionally, DHH acquire fewer lexicons at a slower rate compared to their hearing peers (Birinci & Saricoban). The importance of vocabulary is clear as students need it to express themselves and to be understood by other speakers of the language (Flohr, 2010, p.111).

Barker (2003) claims that deficits in vocabulary may affect students’ success of “gaining knowledge, developing higher level thinking skills, and engaging in positive interpersonal interactions”. Also according to Dimling (2010), the size of a deaf individual’s lexicon is very influential on vocabulary acquisition. Similarly, the success of understanding a literal text and the size of vocabulary are found to be related to each other (Stahl & Nagy, 2007). As Gallion (2016) suggests, DHH students have smaller lexicons and this limits their vocabulary comprehension, therefore their academic success is affected negatively, as they cannot engage in classroom activities completely (Moats, 2000). Studies conducted by Kelly

(2003a, 2003b) show that DHH high school graduates are around fourth grade level in terms of reading and studies suggest that DHH individuals are not likely to enroll in a postsecondary education institution (Garberoglio et al., 2014), when they have poorer reading comprehension and literacy skills (Qi & Mitchell, 2012; Wilbur & Quigley, 1975).

English is the most popular language (Eurydice, 2017), and a significant number of people want to learn it as a foreign language. It is also taught in schools across the globe as it is an essential means of international communication. Deaf individuals should be given the same opportunities to achieve the same skills needed in the globalized world as everybody else (Moravkova, 2011). However, in some countries such as Turkey, the curricula for deaf students still does not include compulsory English lessons (Birinci & Saricoban). As they lack English or foreign language lessons completely, the conditions are not satisfactory for deaf students in the foreign language learning field (Moravkova, 2011).

As Vladovicova (2010, as cited in Moravkova, 2011) claims, DHH students realize the importance of learning a foreign language. However, after being neglected in terms of foreign language learning during the primary and secondary levels of education, during postsecondary education, DHH students are expected to study individually even though they need proper feedback (Janakova, 2000, as cited in Moravkova, 2011).

2.2. Deaf and Hard of Hearing Students and Sign Language

Deaf students learn a foreign language at a slower rate (Srejbrowa, 2019). Brozik (2011, as cited in Moravkova, 2011) suggests that visual communication should be emphasized, and all kinds of communication systems, such as sign language and finger-spelling, should be included in the teaching process (Moravkova, 2011). Sign language usage especially helps deaf students to develop better communication skills since in the deaf community sign language is superior compared to spoken language (Gallion, 2016). Having a larger vocabulary helps students to have a better self-confidence to use language (Gallion, 2016), and sign language should be used to reach the full potential of vocabulary comprehension (Nussbaum et al., 2012).

Deaf students' learning is limited because they have difficulty in following spoken language (Joy et al., 2021), therefore they need other forms of language such as sign language, in order to grasp the information they need in their academic life. Studies show positive correlation between literacy skills and ASL proficiency (Chamberlain & Mayberry, 2008; Strong & Prinz, 1997). Similarly, learning ASL helps deaf students to acquire vocabulary more actively (Anderson & Reilly, 2002), and also helps DHH students to "learn,

communicate and develop language skills necessary to achieve and obtain literacy skills” (Gallion, 2016, p.19).

ASL was found to “function in the same way as spoken languages” by the studies that examined the linguistic features of ASL. Similar to spoken languages, sign languages also have their own grammar, syntax (Moravkova, 2011), vocabulary and literature (Gallion, 2016). Moreover, the similarity between sign languages and spoken languages can be seen as they both differ from country to country (Moravkova, 2011).

2.3. Usage of Technology in the Foreign Language Learning Settings

Technology is used more and more among the field of education, as it became an essential part of our lives (Nezhad et al., 2013). Teachers adapt technology in the classrooms to give students an opportunity to be interactive and have fun, also technology enables teachers to individualize the lessons and meet the individual needs of the students (Coleman et al., 2015). Moreover, technology gives students a freedom where they can learn individually without being dependent on an adult (Coleman, 2009). Despite its countless advantages, there is a lack of studies on the subject of computer-based vocabulary instruction to deaf or hard of hearing students (Barker, 2003; Luckner & Cooke, 2010; Massaro & Light, 2004; Nezhad, Atarodi, & Khalili, 2013).

Explicit teaching of vocabulary can be quite time consuming, for that matter, teachers are in need of less time consuming ways such as computer software, however, there are not many options that teach English vocabulary to DHH students (Barker, 2003). Technology can be a great tool for teaching vocabulary, but besides its role in the teaching, it can also be used to measure the learnings of students and to evaluate their knowledge (Sousa, Ferreira, & Rodrigues, 2019). In addition, technology started to be used more during COVID-19 pandemic as schools were shut down (Joy, Balakrishnan, & Madhavankutty, 2021). However, lack of Sign Language-based teaching tools might have affected deaf students’ educational life in a negative way.

2.4. Benefits of Subtitling While Learning a Foreign Language

Deaf students benefit from visuality in terms of information, and they make use of pictures, graphics and videos while learning, therefore, technology can be a great tool for DHH students for their academic life (Luft, 1997). Not only technology helps DHH individuals to learn easier, it also connects them to the whole world and helps them to understand the benefits of knowing a foreign language, specifically, English (Moravkova, 2011). It also has been observed that deaf students are more confident when they are using a

computer software, and because they feel more comfortable, they make less mistakes of grammar and spelling (Kimmel, 2001). Many research studies in the field also show that appropriate instructional technology is very helpful when it comes to meeting the deaf students' educational needs and help them to reach higher literacy levels (Wang & Williams, 2014).

In audiovisual tools such as television and computer, spoken language has been conveyed via sign language interpretation and/or subtitles for the DHH (SDH), and among these two, SDH has been gaining importance as it is a cheap and fast solution (Tamayo & Chaume, 2017). Studies also suggest that DHH students benefit from SDH as it enhances language acquisition (Ellsworth, 1992; Huang & Eskey, 1999; Parlato, 1986), and it can minimize the “affective filter” (Krashen, 1985). Also according to Bianchi & Ciabattini (2008), when used together with subtitles, audiovisual materials can be used as an authentic input source in the foreign language classroom. Many studies show evidence of benefits of subtitles as they are more facilitatory (Bird & Williams, 2002; Danan, 2004; Mitterer & McQueen, 2009; Vandergrift, 2011), especially for “less advanced students” (Vulchanova, 2015).

2.5. Studies in the Field of Teaching Foreign Language to Deaf or Hard-of-Hearing Individuals

Even though not many studies have been conducted to investigate the DHH foreign language teaching methods, there are a few ones that discuss various topics in teaching English to DHH individuals. Some of them investigate the role of subtitles, some of them investigate the role of sign language while others investigate the role of technology when teaching a foreign language to deaf or hard-of-hearing learners. Many of the studies include participants of an early age.

A study conducted by Untari et al. (2013) investigated the role of subtitles for the English vocabulary teaching to deaf in a classroom action research. 6 eight grade students from Indonesia participated in the study. As “their primary modality for communication is visual clue”(279), the results of the study showed effectiveness of subtitles in vocabulary learning and its contribution to deaf students' academic achievement.

Another study was conducted by Tamayo and Chaume (2017) with 75 primary school DHH students. The study compared the subtitles from an actual TV broadcast and the alternative ones created by the researchers. To measure the effectiveness of the study, a multiple-choice questionnaire was created. The alternate subtitles were adapted to fit the

needs of the DHH learners. They were made bigger, the vocabulary in the subtitles were simplified and also omitted when it was necessary. The results showed improvement in academic achievement when the subtitles were edited. However, the significant improvement was only found with the edited vocabulary but not with the syntax.

One other study was conducted in Norway by Vulchanova & Lervag (2021). They researched the impact of L1 and L2 subtitles on L2 vocabulary learning and L2 comprehension. L1 and L2 subtitles were compared in terms of learners' comprehension. The comprehension was tested immediately after the presentation of the videos. The results supported the previous findings that suggest TV programs as teaching tools and also the need for audiovisual materials that have a combination of pictures, words and sounds. The results showed more significant improvement in comprehension with participants having a moderate hearing loss. The findings indicate that pre-teaching the basic vocabulary before showing videos (with visuals and subtitles) would be more beneficial for the learners.

Barker (2003) studied the effectiveness of computer-assisted vocabulary acquisition. The study investigated the effect of a computer-based vocabulary tutor designed for 19 DHH primary school students. What is unique about the study is that it utilizes drawings or photographs of the target vocabulary and an audiovisual speech driven from a text. The immediate posttest revealed that children could memorize up to 218 new vocabulary of everyday household items. And the delayed-posttest showed that participants could retain more than half of the vocabulary that they have learnt.

Another study conducted to understand the effectiveness of conceptually based sign language vocabulary teaching to DHH children by Dimling (2010). The participants were six second graders from an urban school. The study aimed to "determine the effects of the vocabulary intervention on word recognition, production, and comprehension". The study lasted 6-8 weeks and each session was 30 minutes long. The study adapted a Total Communication teaching method for the intervention which consisted of amplification, sign language, and speech. Vocabulary was introduced via a video format in ASL and also in a context of a sentence. The results showed significant improvement on all of the measured areas which are recognition, production, and comprehension.

Coleman et al. (2015) also studied the vocabulary development of DHH students; however, they compared the teacher-provided and computer-assisted teaching methods. 3 second graders participated in the study. The participants were presented the target vocabulary via word cards and Microsoft PowerPoint presentations. The format was so that it was the

same on both cards and presentation. The results showed that both of the interventions were equally effective. However, 2 of the 3 participants stated that they would prefer the Computer-Assisted Simultaneous Prompting(CASP) intervention more while only one of them said that he would prefer the Teacher-Provided Simultaneous Prompting(TPSP) intervention.

Another study conducted by Birinci & Saricoban (2021) investigated the effectiveness of visual materials (pictures and real objects) in teaching vocabulary to DHH students. 80 vocational high school students from Turkey participated in the study. All the participants had an English lesson for the first time when the study was conducted. There were two groups of 40: experimental group and control group. They were taught 10 vocabulary items each week, a total of 50 vocabulary items. The experimental group was taught the vocabulary items via visual materials (pictures and real objects) and Turkish Sign Language while the control group were taught in Turkish Sign Language. Both immediate and delayed post-tests showed that using visual materials alongside the sign language was indeed more effective.

Final study investigated the role of technology in supporting sign language as a teaching tool. The study examined the literature published between 1993 and 2013. Results showed significant differences in learning sign language with technology instead of the traditional ways. The results also indicated that including various forms of technology increases the “student vocabulary, language, reading comprehension and writing skills”. The research also revealed that the technology especially including sign language was effective in the teaching context for disabled learners.

CHAPTER 3

Methodology

This part of the research will give information on the model of the study, research setting and participants, data collection tools, data collection, and analysis.

3.1. Research Design

The research adopted a mixed-method research in pretest – posttest design. As Dörnyei (2007) explains, mixed-method research refers to the methods that combine qualitative and quantitative data. Dörnyei emphasizes that the mix-methods research “has been increasingly seen as a third approach in research methodology” (2007, p.42).

The present study includes quizzes and a survey as quantitative data and an open-ended questionnaire as qualitative data.

3.2. Research Setting and Participants

The participants of the study initially included 32 non-English speaking deaf adults located in Istanbul, however, 5 of them did not complete the procedure and 27 remained. 16 of the participants were female and 11 of them were male. They were all above the age of 18. Majority of them did not have any experience in learning English. They were not familiar with the American Sign Language; however, they were all using Turkish Sign Language as a mean of communication and education. To keep the identity of the participants anonymous, K1, K2 ... K32 alphanumeric codes were used.

Study was not restricted to the place however, it was restricted in time as it took two and a half months.

Table 1

Participants of the study

	Gender	Age	Period	When	Cochlear	English
			Deafness		Implant	Learning
			Occured		Usage	Experience
K1	Female	18	and	At birth	No	No
		above				
K2	Male	18	and	At birth	No	No
		above				

K3	Male	18 above	and	Age of 3-12	Yes	No
K4	Female	18 above	and	At birth	No	No
K5	Male	18 above	and	At birth	No	No
K6	Female	18 above	and	At birth	No	Yes - Less than a year
K9	Female	18 above	and	At birth	No	No
K10	Female	18 above	and	At birth	No	No
K11	Male	18 above	and	At birth	Yes	Yes - Less than a year
K13	Male	18 above	and	At birth	No	No
K14	Female	18 above	and	At birth	No	No
K15	Female	18 above	and	At birth	No	No
K16	Male	18 above	and	At birth	No	No
K19	Female	18 above	and	At birth	No	No
K20	Male	18 above	and	At birth	No	No
K21	Female	18 above	and	At birth	No	No
K22	Male	18 above	and	At birth	No	No
K23	Female	18 above	and	At the age of 0-3	Yes	Yes - Less than a year

K24	Female	18 above	and	At birth	No	No
K25	Male	18 above	and	At the age of 3-12	Yes	No
K26	Female	18 above	and	At birth	No	No
K27	Male	18 above	and	At birth	No	No
K28	Female	18 above	and	At the age of 3-12	Yes	No
K29	Male	18 above	and	At birth	No	No
K30	Female	18 above	and	At the age of 3-12	No	No
K31	Female	18 above	and	At birth	No	No
K32	Female	18 above	and	At the age of 0-3	No	No

Total 27

*5 of the participants were eliminated from the study as they did not participate in the process until the end.

3.3. Data Collection Instruments

In this study, a survey, quizzes and open-ended questionnaire through a web-site were used as data collection tools. The survey included demographic questions such as gender, age, English learning experience etc.; quizzes were introduced after the lesson introduction to measure the immediate comprehension. Open-ended questions included questions to understand the participants' views about the procedure. In addition, a pre and post test was given to measure any significant changes.

3.4. Data Collection Procedures

Lessons were introduced through videos to the students who were not familiar with the American Sign Language before. They were introduced to American Sign Language during

the process by the interpreter in the videos who used American Sign Language to introduce the selected English vocabulary items. Videos also included written words both in Turkish and English (subtitles). Videos were recorded by the researcher and uploaded to a website specifically designed for the study.

Before the lesson instructions, learners were asked to fill the demographic survey form. The form was also prepared by the researcher. After the demographic survey, learners were asked to solve a pre-test (see Appendix B) to understand their existing English levels. The test included 20 questions from each subject shown in the videos. When learners were ready to start the procedure, they were asked to watch short videos and complete the quizzes after watching the videos. Each quiz included 5 questions, as videos were short and did not consist of many vocabulary items (1-3 minutes and consisted of 5-10 words). After completing the procedure by watching all the videos, learners were asked to do the post-test that included 20 questions about each subject. Finally 5 of the participants were selected to answer the open-ended questions. Demographic questions, quiz question root and open-ended questionnaire were held in Turkish to prevent data loss as the participants lacked the sufficient skills in the target language.

3.4.1. Ethical Considerations As all the participants were above the age 18 their consent was taken orally before the study, only the ones that consented participated in the study. Before the procedure, the content and the procedure were explained to the participants. And their identities were kept anonymous by enrolling them in the system with alphanumeric codes. Participants were explained the purpose of the study and that their identity would be kept anonymous.

3.5. Data Collection and Analysis

As the first step of the research, a website was created for the research. During the process of preparing the website, the researcher recorded videos in American Sign Language and edited them on a tablet to write the equivalent words for ASL both in the target language and mother tongue of the students. The researcher later prepared English pre-test and immediate post-test, and also quizzes. The website recorded students' answers.

The website was created as a means of lesson instruction, to measure the student's learnings and also to record the answers of the students. The researcher learned ASL through Udemy (an online learning platform) prior to the study and recorded lessons afterwards. The videos were recorded by dividing them into topics such as family, lunch, numbers... There

were 20 subjects in total (see Appendix F). Each video was followed by a quiz that measured the same subject that students watched.

The researcher prepared the pre-test and post-test including all the topics per test. The pre-test and post-test contained 20 questions (for each of the 20 subjects). When the website was created and completed, videos were uploaded to the website. Then the demographic form, pre-test and post-test, and quizzes uploaded next.

Initially, participants were to be selected from a public vocational high school. However, there was a pandemic the schools were closed and it was not possible to reach students. For that reason, participants were found online via social media announcements that are made in Facebook groups for the deaf. 32 participated in the study initially and 27 were left as the time progressed.

As a final step, 5 participants were selected to answer an open-ended questionnaire that was created through Google-Forms. The questionnaire included questions prepared to understand the views of the participants about the procedure. In order to have a deeper understanding of the effectiveness of the procedure and the material that is used. The participants contributed the open-ended questionnaire willingly and were selected according to their language skills, as DHH people are disadvantageous in terms of language ability.

The data then were entered in the IBM SPSS Statistics for Windows, version 28. Demographic data were entered as nominal values and pre-test, post-test and quizzes were entered as scale values for the notes that the students got from the tests and quizzes.

First the normality test was done, and it was found that the data was not distributed normally. Therefore the rest of the procedure required non-parametric measure. Gender and pre-test and post-test results were compared through non-parametric independent samples and later the researcher did the Wilcoxon test to be able to compare the pre-test and post-test results. Finally, the researcher analyzed the mean, maximum and minimum values of the quizzes. After the quantitative data analysis, the researcher analyzed the open-ended questionnaire. Five participants, who had the most literacy skills, participated willingly.

3.5.1. ASLEDU.COM: The function of the website (see Appendix G) The website was designed for deaf individuals who want to learn English vocabulary. The website designed to function both on desktops/laptops and mobile phones. The interface was designed to be simple and effective. The first step to the website is the enrollment. This process requires a valid email address. Next step for participants is choosing the city they live in and their age.

Figure 1*Enrollment to the website*

Şehir
İstanbul

Doğum Tarihi

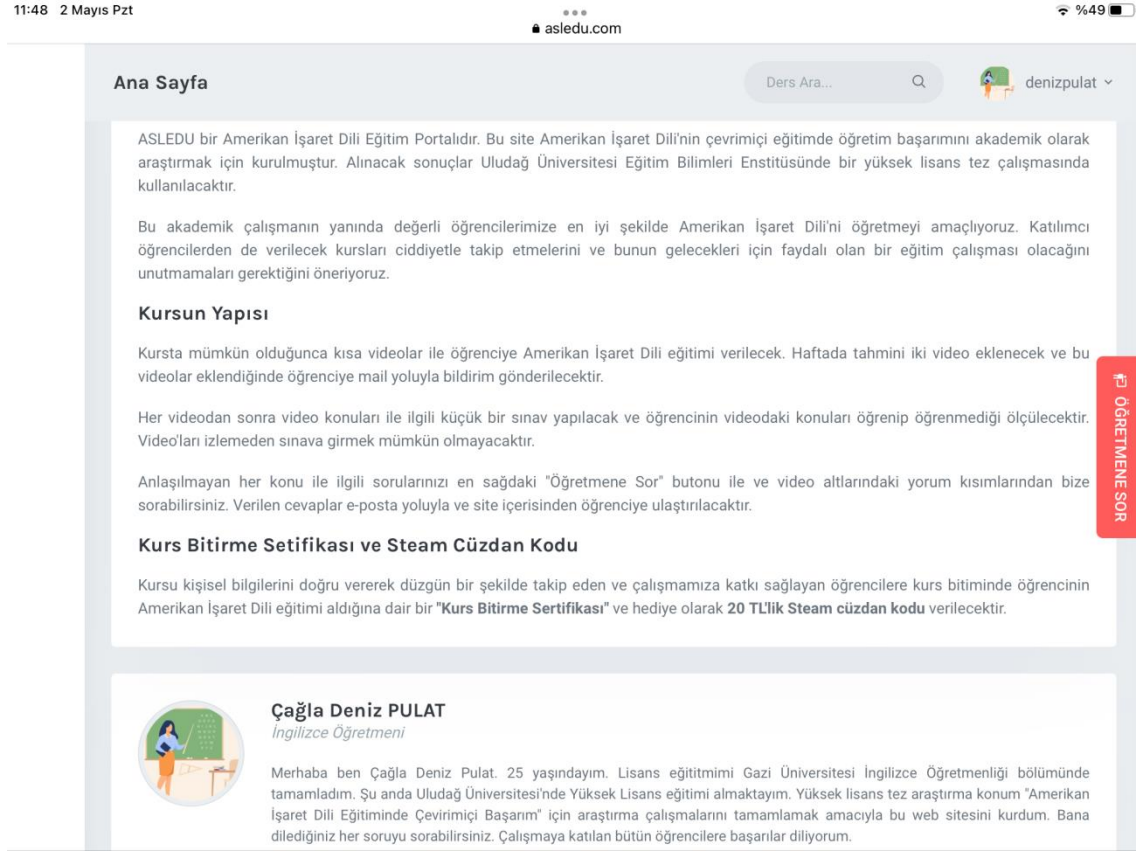
1 May 1996

Kaydı Tamamla

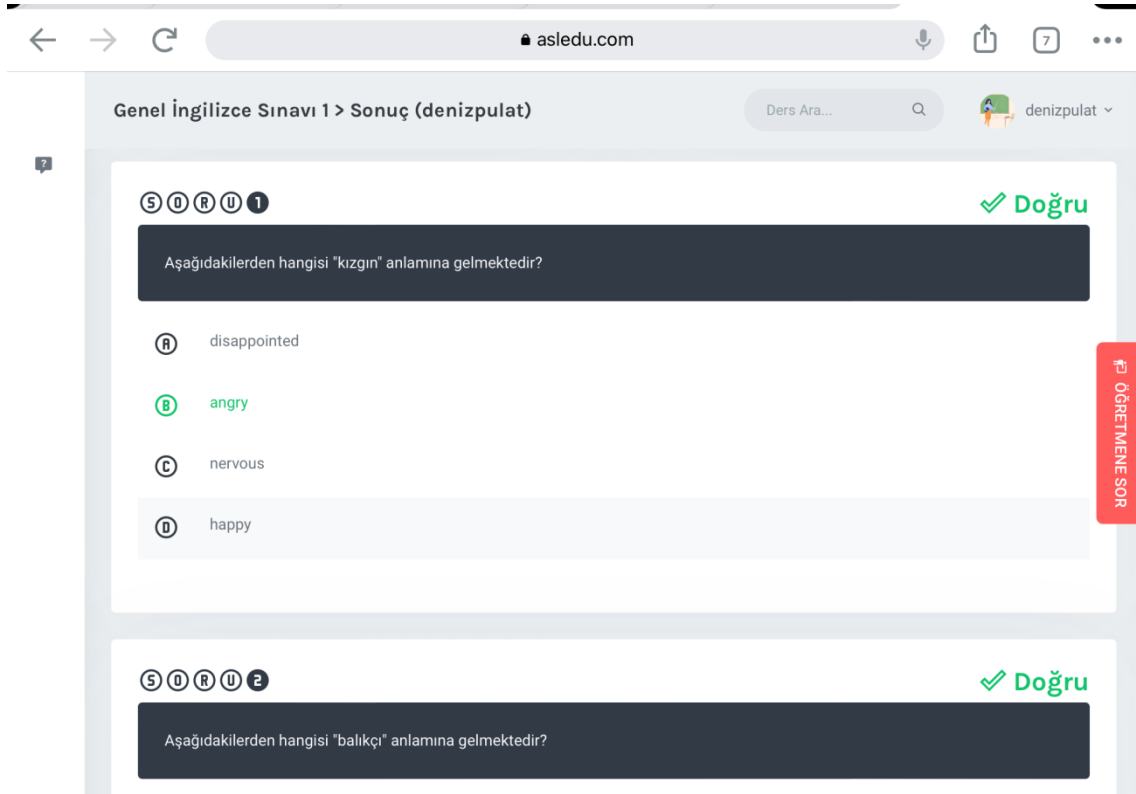
Mayıs 1996 ▾

Şubat	1993
Mart	1994
Nisan	1995
Mayıs	1996
Haziran	1997
Temmuz	1998
Ağustos	1999

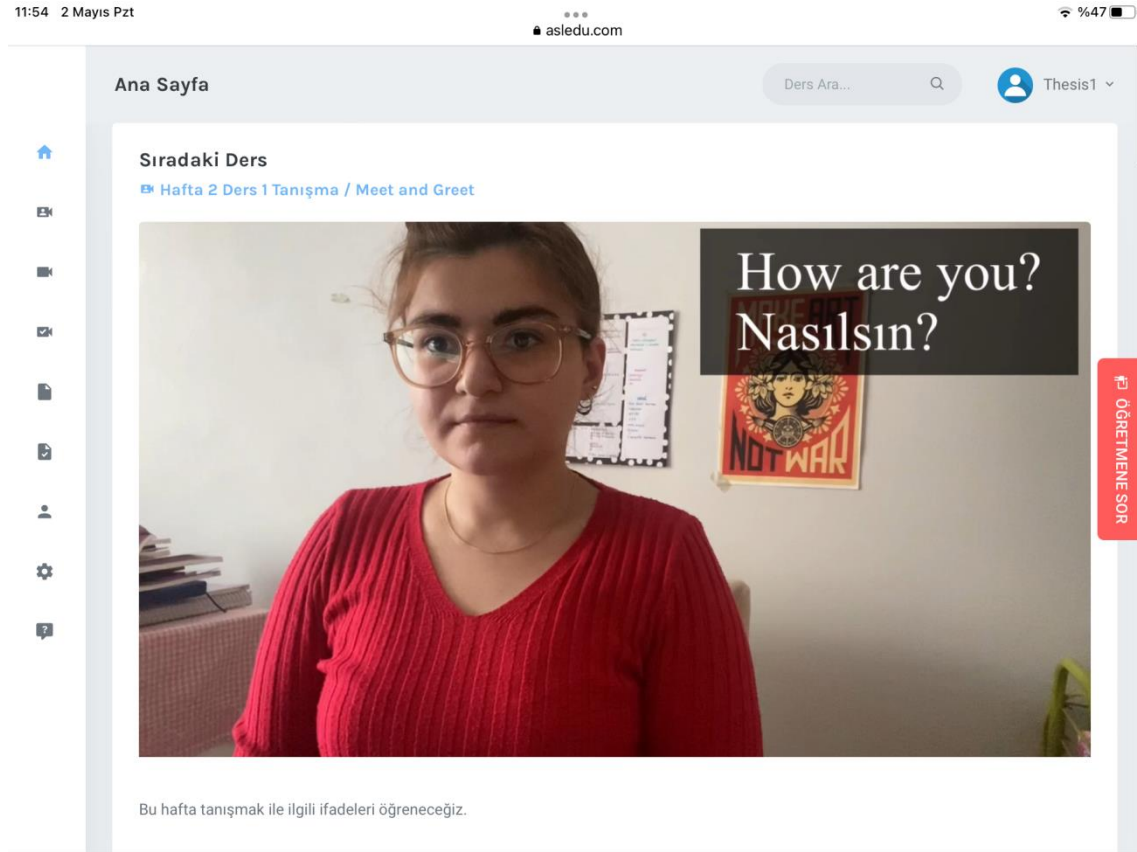
After the enrollment, participants reached the homepage where they were able to find information about the process and the researcher.

Figure 2*The homepage of the website*

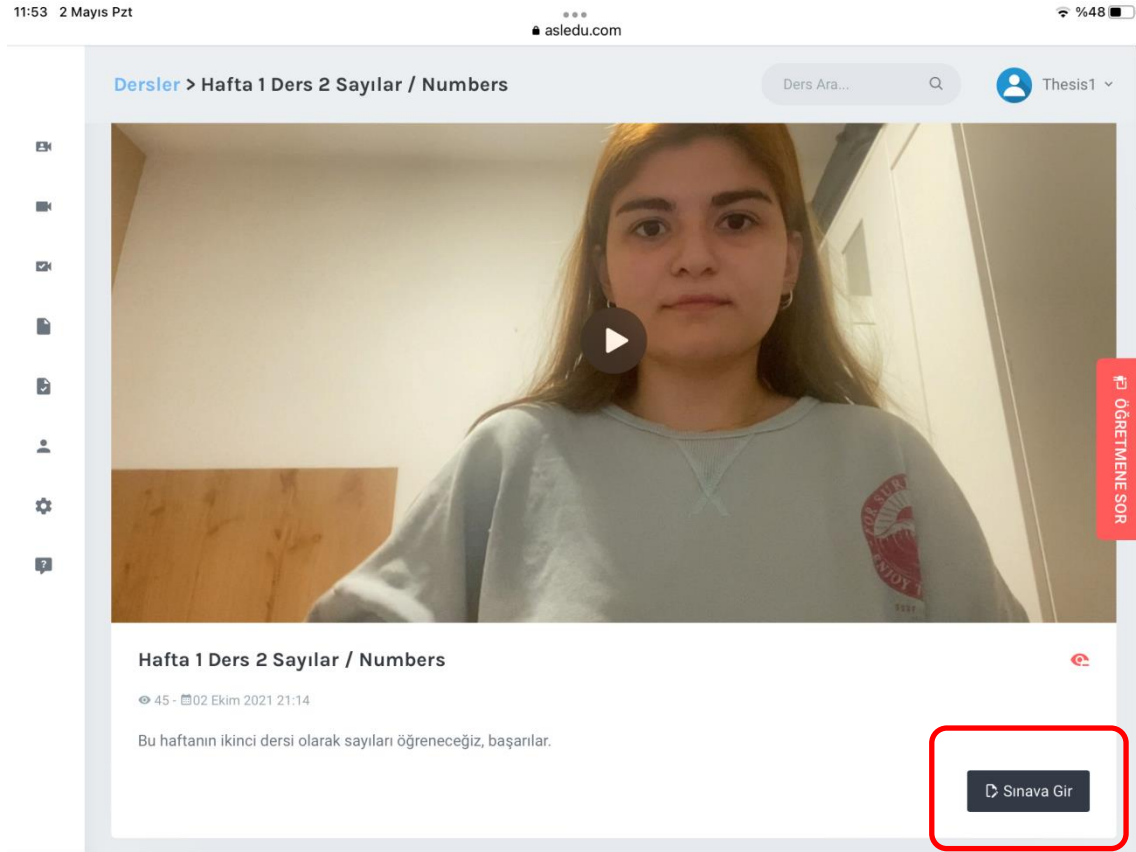
The first thing to do on the website is to fill the demographic form (see Appendix A). After that participants were required to take part in the pre-test (see Appendix B).

Figure 3*Pre-test*

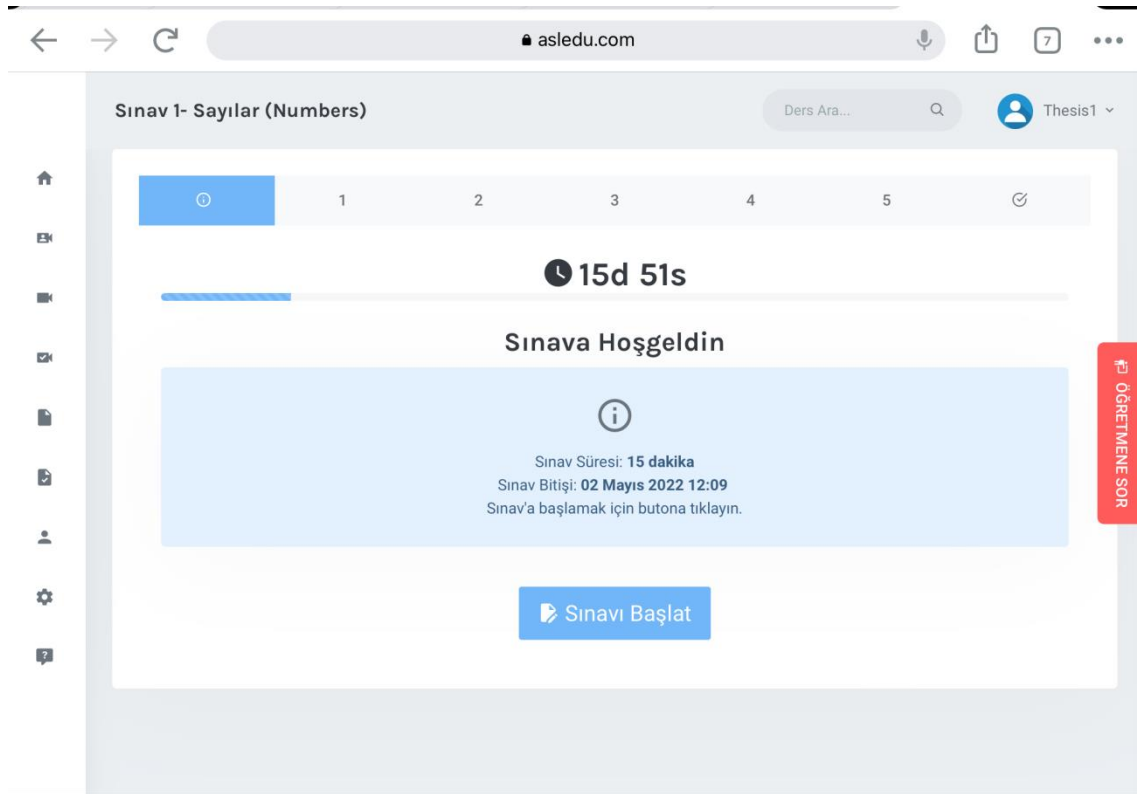
After the pre-test, the participants watched 2 videos per week on 20 different English vocabulary subjects. The subjects were: Alphabet, numbers, meet and greet, pronouns, family, pets, face, body, emotions, describing feelings, breakfast, lunch and dinner, snacks, fruits and vegetables, kitchen utensils, weather, days of the week, seasons, clothing, and occupations. Except for the subject alphabet, participants finished a total of 19 quizzes (see Appendix D), one for each video. Participants had 15 minutes to finish each quiz.

Figure 4*Video view*

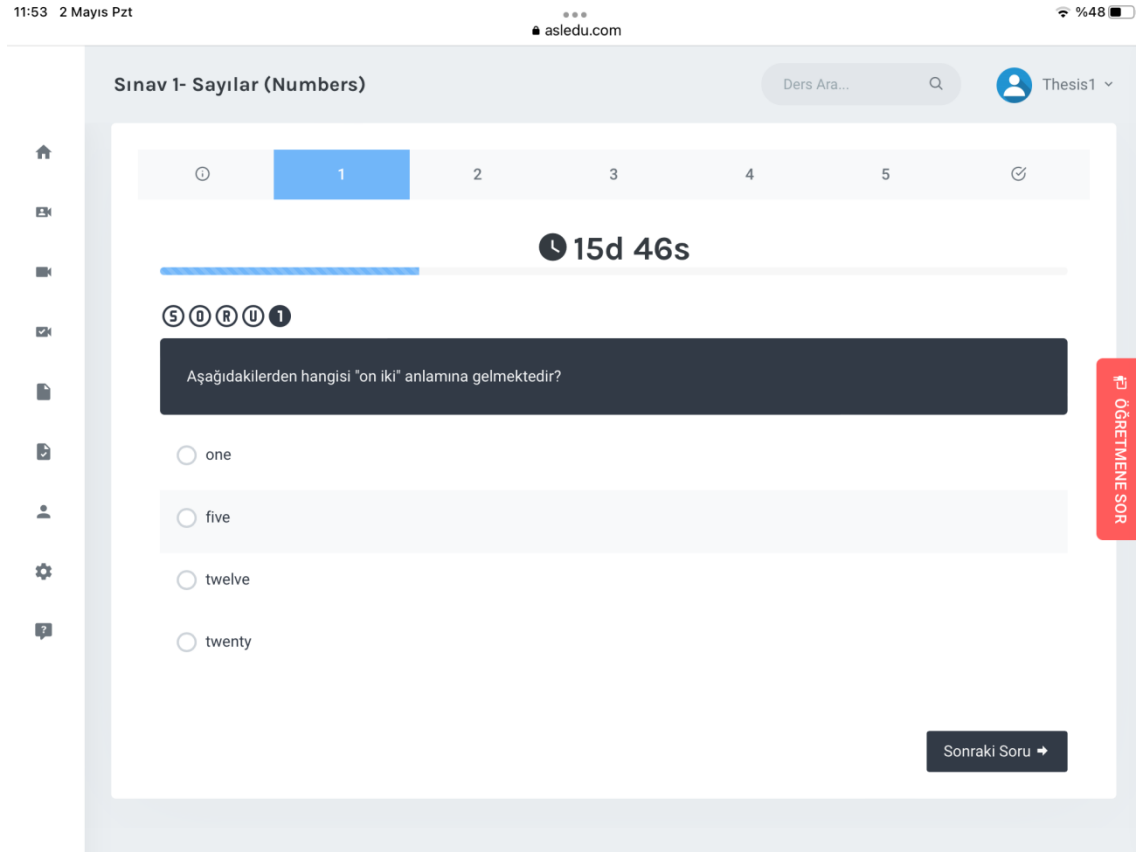
Videos were designed to include three aspects of language: American Sign Language representations of the words, L1 and L2 versions of the words. In the videos, each word or lexical item was repeated 2 to 3 times.

Figure 5*Quiz button*

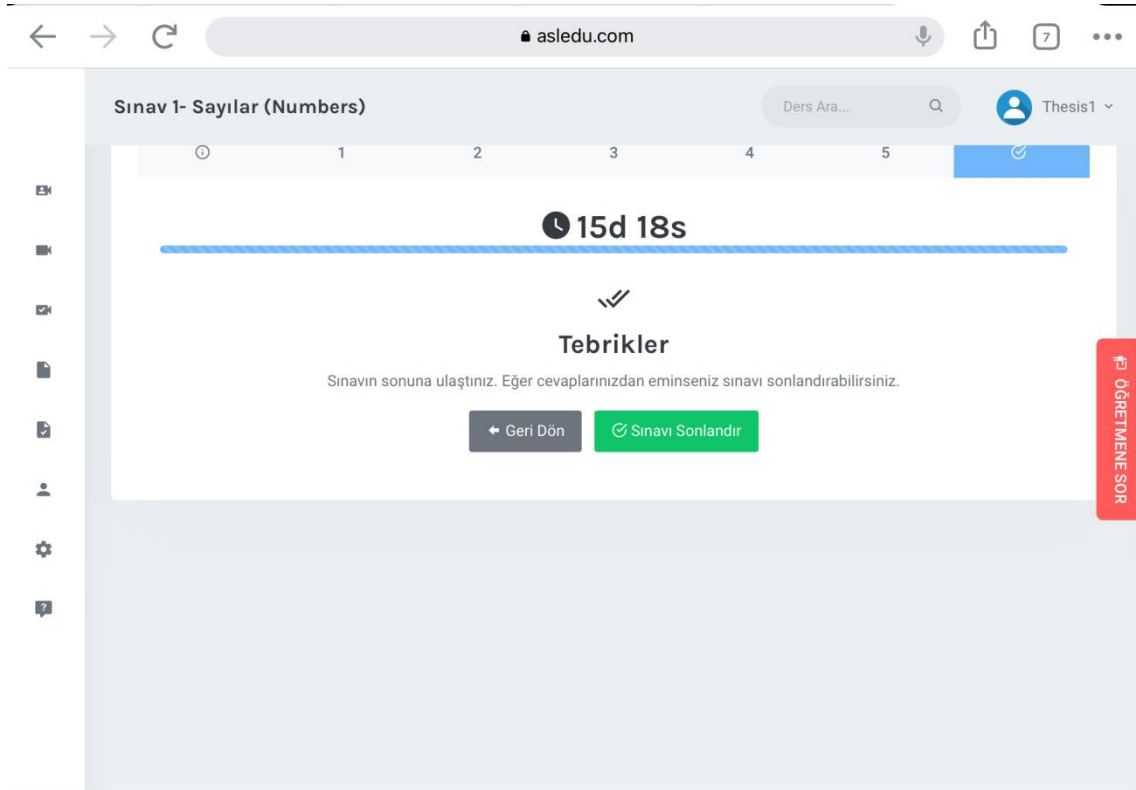
After watching a lesson video, a quiz button became available.

Figure 6*Beginning of the quiz*

An informative page was designed for the students to learn the number of questions and also the amount of time they will have.

Figure 7*Questions of the quiz*

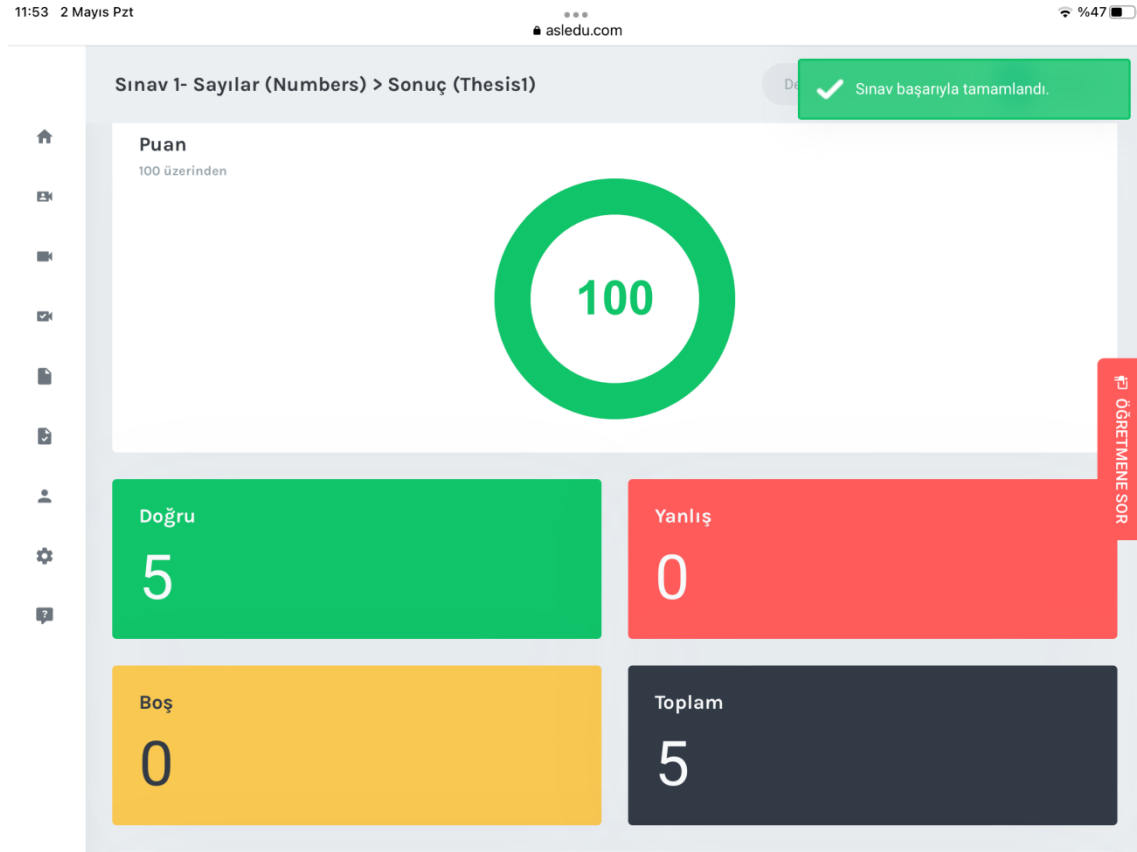
There were 20 videos and 19 short quizzes in total (Only the lessons for the alphabet does not have a quiz). Each quiz had 5 questions (except for the pre-test and post-test, which had 20 questions each) and each question had 4 possible answers for students to choose among. Students were able to watch the videos again, but they were not allowed to take the same quiz a second time.

Figure 8*End of the quiz*

The ending page gives students the option to end the quiz or go back and change their answers.

Figure 9

Feedback page of the quiz – shows correct, false and blank answers



Feedback page shows students how many correct or incorrect answers they have got, and also their total point from the quiz.

After completing all the quizzes, participants completed the immediate post-test (see Appendix C). The post-test had 20 questions related to each subject. Open-ended questionnaire was distributed via Google-Forms (see Appendix E). Five participants who had the most literacy skills in L1 were chosen for the qualitative part of the study as reading is a hard task for deaf or hard of hearing individuals.

CHAPTER 4

Results

This chapter examines the results of the tests on pre-test and post-test results, as well as gender difference on the success of the participants. Finally, information on the views of the participants on the procedure is given.

The quantitative data of the study were used to identify DHH language learners' progress during the process. Initially, the normality test was done to determine if the results were distributed normally or not. Results indicated that the results were not normally distributed (see Table 2). Pre- and post-test results were used to analyze possible differences between the two tests. In addition, gender differences were also investigated. Finally, mean, maximum and minimum values of the quizzes were analyzed to identify learners' progress. The qualitative data gathered via an open-ended questionnaire, was analyzed thematically. This chapter reports the analyses of the quantitative and qualitative data.

The data analysis was reported under four headings which are differences in success between pretest and post-test, gender differences in success between pre-test and post-test, analysis of the quizzes, and results of the open-ended questionnaire.

Table 2

Distribution of Normality

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PRETEST RESULT	,14	27	,151	,89	27	,012
POSTTEST RESULT	,21	27	,003	,92	27	,056

a. Lilliefors Significance Correction

4.1. Pre-test and Post-test results

The Wilcoxon test was done to determine the significance between the pre and post test. The study revealed a significant improvement in English vocabulary knowledge at the end of the procedure.

Table 3

Wilcoxon Signed Ranks Test results on the pre-test and post-test

Test Statistics^a

	POSTTEST RESULTS – PRETEST RESULTS
Z	-4,549 ^b
Asymp. Sig. (2-tailed)	<,001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

*Significance value was found out to be <,001

Figure 10

Pre-test results graphic

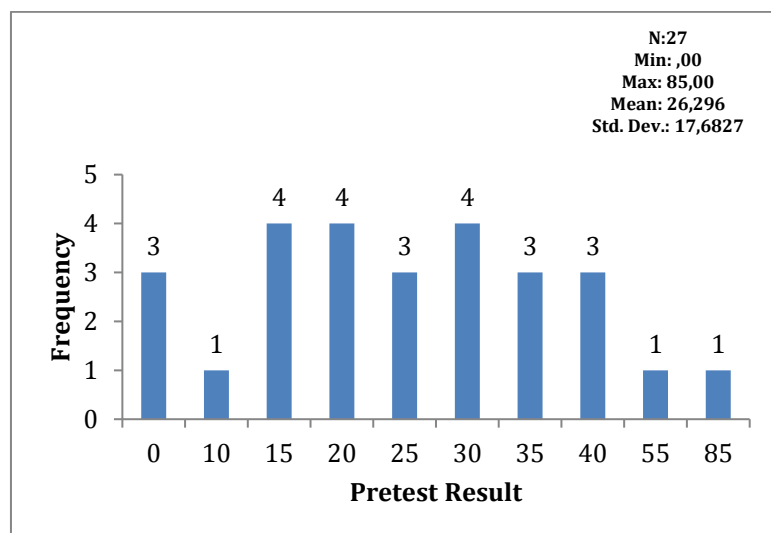
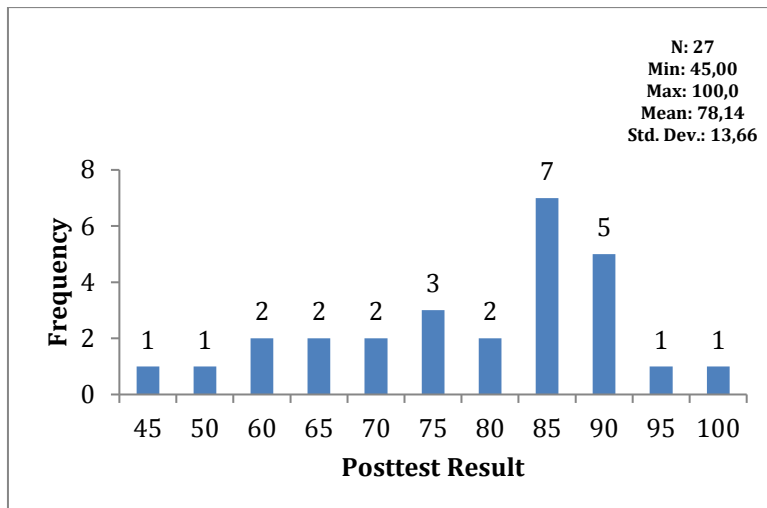


Figure 11*Post-test results graphic*

The results show that the mean value of success of the participants increased significantly (sig 2 tailed < .001). The pre-test mean value was 26,2 while post-test mean value was found out to be 78,1. Also, it can be seen on the graphic that during the pre-test not even a single participant could score 100/100 but on the post-test a couple of them could. Also on the pre-test, the majority of the participants scored 40/100 and under while on the posttest majority of them scored 60/100 and above.

4.2. Gender Differences Comparison between Post-test and Pre-test

The results did not show any significant difference (sig 2 tailed > .05) between the genders' success level (see Table 4).

Table 4*Female and male success values on pre-test and post-test**Ranks*

			Mean	Sum of
	Gender	N	Rank	Ranks
PRETEST	Female	16	15,84	253,50
RESULT	Male	11	11,32	124,50
	Total	27		
POSTTEST	Female	16	12,84	205,50
RESULT	Male	11	15,68	172,50
	Total	27		

Test Statistics^a

	PRETESTR	POSTTESTR
	ESULT	ESULT
Mann-Whitney U	58,50	69,50
Wilcoxon W	124,50	205,50
Z	-1,46	-,92
Asymp. Sig. (2-tailed)	,143	,355
Exact Sig. [2*(1-tailed	,148 ^b	,368 ^b
Sig.)]		

a. Grouping Variable: Gender

b. Not corrected for ties.

Even though the results did not show a significant difference, it can be seen that females had slightly more success on the pre-test and post-test. However, it can also be observed that the male success values increased as well.

4.3. Analysis of the Quizzes

The results did not show an increasing success through the study; however, it can be observed that participants scored higher in some subjects but scored lower in some others. The participants were found unsuccessful in the 'pronouns' subjects (see Table 5, quiz 3).

Table 5*Mean, minimum and maximum values of the quizzes**Report*

	Quiz 1	Quiz 2	Quiz 3	Quiz 4	Quiz 5	Quiz 6	Quiz 7
Mean	77,24	87,58	50,34	80,00	75,71	66,42	68,57
N	29	29	29	28	28	28	28
Std.	22,50	20,29	25,42	18,05	25,73	25,56	27,98
Deviation							
Median	80,00	100,00	40,00	80,00	70,00	60,00	80,00
Minimum	20	40	20	40	20	0	20
Maximum	100	100	100	100	100	100	100

Report

	Quiz 8	Quiz 9	Quiz 10	Quiz 11	Quiz 12	Quiz 13	Quiz 14
Mean	66,66	80,74	77,77	78,51	94,07	74,81	77,03
N	27	27	27	27	27	27	27
Std.	24,17	17,08	22,41	15,61	9,30	22,59	21,27
Deviation							
Median	60,00	80,00	80,00	80,00	100,00	80,00	80,00
Minimum	20	40	20	20	80	20	20
Maximum	100	100	100	100	100	100	100

Report

	Quiz 15	Quiz 16	Quiz 17	Quiz 18	Quiz 19
Mean	83,70	74,81	82,22	88,14	84,44
N	27	27	27	27	27
Std.	14,71	24,55	23,75	17,76	16,94
Deviation					
Median	80,00	80,00	100,00	100,00	80,00
Minimum	60	20	20	40	60
Maximum	100	100	100	100	100

It can be seen from Table 5 that there are four main subjects that had the lowest success rate for participants and they are as follows: pronouns (50,3), face (66,4), body (68,5), and emotions (66,6). And between the four of them participants had the least success rate on the subject of pronouns with a mean of 50,3. On the other hand, there are the main subjects that had a high success rate: Meet and greet (87,5), snacks (94), and clothes (88,1).

4.4. Analysis of the Open-ended Questionnaire: Participants' Views on the Procedure

Open-ended questionnaire (see Appendix E) had 20 questions. 5 of the participants gave answers to the questionnaire. Only first question was related to demographic information.

4.4.1. Participants' alphanumeric code The first question was asked to relate the participants' answers with their demographic information and their scores on the tests and quizzes. Participants who participated in the qualitative part of the study are as follows: K3, K11, K25, K28, K30.

4.4.2. Effectiveness of the study The second question asked if the participants found the study effective and if so, in what way. 3 of the 5 answered very positively and 2 out of the 5 participants answered somewhat positively. Participants stated that they found the study effective as they gained self-confidence and that they learned a lot of vocabulary. Participants 30 and 11 said that they learned on an average level, however, their scores were 85 and 95 on the post-test.

4.4.3. Willingness to continue to the program The third question asked if the participants wanted to continue learning English with such a method (videos and quizzes). All of the participants answered yes to the question. One of them also asked if it would continue. Also, one of them said that he wanted to learn grammar as well.

4.4.4. Comfort of the participants The fourth question asked if they felt comfortable during the process, 4 of the participants said they felt very comfortable and one of them said that he felt comfortable, however he feels more comfortable when the learning is face to face.

4.4.5. Willingness to have the program at school The fifth question asked if the participants would want to learn in the same way at school. Three of the participants said they would, one of them said he wanted English lessons and the method did not matter. And the last participant said that he would not want this type of teaching at school, and that he would like it if the teacher made explanations during the teaching process.

4.4.6. Difficulties with the process The sixth question inquired about the most difficult part of the process for them. One of the participants said that he did not have any

difficulties, one of them said that it was difficult for him to take a quiz only once and also to learn the American Sign Language and the vocabulary at the same time. One of them said the process took too long, and two of the participants said that the vocabulary passed too quickly to see or understand. However, it was possible to pause or replay the videos.

4.4.7. Explicitness of the videos The seventh question asked if the videos were clear enough. Two of the participants wanted the videos to take longer and two of them said that learning ASL and the vocabulary at the same time was hard and one of them suggested that first there would be ASL lessons, and then vocabulary lessons. And one of them said it was clear and understandable enough.

4.4.8. Resources The eighth question asked if they wanted to see other resources during the process and if the resources that were already existing were enough for the learning. Two of the participants found the resources sufficient enough, however, two of the participants said that they would prefer Turkish Sign Language instead of American Sign Language. And one of the participants suggested that it would have been better if there were pictures of the vocabulary.

4.4.9. Communication The ninth question asked if participants think that they could communicate simply with the vocabulary that they learnt. Four of them said yes and one of them said that he could communicate a little.

4.4.10. Contribution of the process to the academic or private life The tenth question asked if the process would contribute to their academic or private life. Three of the participants said that the process would contribute to their private life more. Additionally, one of them said if the process continues he thinks it would contribute to his academic life and the final participant said that he thinks that he would not fall behind on the academic level with the help of vocabulary learning.

4.4.11. Self-confidence The eleventh question asked if the self-confidence of the participants improved. All of the participants said yes to this question.

4.4.12. Contribution of the process to self-confidence and willingness to learn English The twelfth question asked if the learning experience contributed to the participants' self-confidence and willingness to continue learning English. All of the participants said yes to this question as well.

4.4.13. Satisfaction of the participants The thirteenth question asked if the participants were pleased and if they found what they were expecting from the procedure.

Four of the participants said yes and one of them said that he would want a more detailed teaching experience.

4.4.14. Accessibility of the website The fourteenth question asked to understand if the website was accessible for the participants and all of them said that it was, however, one of them stated that because his internet was slow he had problems with watching the videos.

4.4.15. The preference of accessing to the website The fifteenth question asked if the participants accessed the website through a computer or a mobile phone. Four of the participants said they accessed from a mobile phone while one of them said that he accessed through a laptop.

4.4.16. Preference of the modal (face to face or videos) The sixteenth question asked if the participants would prefer this teaching model face to face or the way it is, with videos. One of the participants said that he would prefer it the way it is, one of them said that it would not matter; however, three of the participants said they would prefer it face to face.

4.4.17. Advantages and disadvantages of the teaching experience The seventeenth question asked the advantages and disadvantages of the teaching experience. The answers varied. One of the participants said that one advantage was to be able to watch the videos several times, however, he said that it was disadvantageous that it wasn't possible to get explanations during the teaching process. Another participant said that its advantage was that the process was stress-free and that he could not think of a disadvantage. Third participant said that it was nice to be able to watch the videos whenever he wanted but it was disadvantageous not to be able to ask questions to the teacher during the process. (It was possible to ask questions to the teacher on the website before or after the teaching process, however it was not possible to ask during the teaching process.) And finally, two of the participants said that they would not know because they did not have any English lessons before.

4.4.18. Motivation of the participation to the study The eighteenth question inquired about the motivation behind the participation to the study. Two of the participants said that they participated because they wanted to learn English, two of them said they wanted to see if they could learn it. And one of them said that he wanted to improve himself.

4.4.19. Perceptions of the participants: Before and after the study The nineteenth question asked if their perception of learning English had changed at the end of the procedure or not. Perceptions varied, however, the majority of them were positive. One of the participants said he still thinks that learning English is hard. Two of them said that their

perception did not change, they had wanted and still wanted to learn English. One of them said he did not think he could learn and the final participant said that he saw that he could learn.

4.4.20. Perspectives of participants on quizzes The twentieth and the final question asked if the participants were happy with the quizzes. Four of them said that they were happy with them and two of the four participants said they liked it being short the most. The last participant said he did not like them because he could only take them once.

CHAPTER 5

Discussion

The chapter provides discussions on the results of the study in the light of related literature with suggestions. The chapter contains two headings which are Discussions of the Findings and Implications for Teaching English to deaf or hard-of-hearing individuals.

5.1. Discussion of the Findings

The results were discussed under the headings of achievement of the participants before and after the process, the comparison of the success between female and male participants, success of the participants throughout the process, and perspectives of the participants about the study.

5.1.1. Success of the participants before and after the process The results of the study provided an insight of the level of English vocabulary knowledge of deaf or hard-of-hearing individuals and also of the effectiveness of the study. Results revealed that the mean score on the pretest was 26,2 (There were 3 participants who were already receiving an English education less than a year). The knowledge of English vocabulary therefore, found to be very low. However, this was not a surprise as the English lessons are not compulsory in Turkey for deaf students (Birinci & Saricoban, 2021). On the other hand, the mean score was 78,1 on the posttest. SPSS Statistics (Version 28) showed a significant difference between the pretest and posttest. The results supported the effectiveness of using subtitles and maybe (American) Sign Language while teaching a foreign language (American Sign Language, especially when teaching English). As Kelly (1996) stated, “ASL provides visual detail” and therefore, including ASL to the teaching method supports learners’ success in vocabulary learning. However, as one of the participants suggested, there could be images of the given vocabulary to ease the process more. The studies support this notion as well (Dotter, 2008; Hyjáňková & Collins, 2010).

5.1.2. The comparison of the success between female and male participants The results about the comparison of the success among the genders did not show any significant difference. However, results showed that female participants were slightly more successful before and after the study, even though it was not significant. However, results revealed that the success of male participants improved more compared to the success of female participants. Because the results did not show any significant difference on the comparison, this might be due to the limited number of participants. There are only a few studies conducted to investigate the English learning experience among deaf or hard of hearing

individuals. Since there is a lack of studies to investigate, studies conducted to understand the gender differences in foreign language learning among hearing students were reviewed to have insights on the subject. Ossai (2012), researched the gender differences in study habits, and he also found that the female students were more successful. More studies regarding vocabulary learning differences among female and male participants show incoherent results. Some results showed higher success levels among females (Boonkongsan & Intaraprasert, 2014) while the others showed higher success levels among male participants and also some of them show variety such as higher male success in one group and higher female success in other, in the same study (Uzun, 2013). Gender differences discussed in the studies mentioned that the results might be due to cognition and usage of different brain areas. Also, it is discussed that male learners may have higher success in learning due to their high usage of the target language because they play video games (Olsson & Sylven, 2015). If the results showed a significance in comparison, the results might give an insight on the habits of study among the genders.

5.1.3. Success of the participants throughout the process The results revealed that the success did not differ throughout the study; however, it did differ subject by subject. The achievement rate was the lowest on the following subjects: pronouns, face, body, and emotions. On the other hand, the achievement rate was the highest on the following subject: snacks. The results show important insights. The vocabulary of pronouns might seem similar (e.g. them – they) to the participants and that could be the reason for them to have difficulties while learning it. The subject of snacks might seem easier to the participants because some English words for snacks have been frequently used in the Turkish social media such as chocolate, popcorn, cookie, chips and soda. Also, it is worth mentioning that some of the quizzes were ineffective in terms of measuring the success. They revealed the answers because they had similarities with the Turkish words as they both had same context clues ('?', '...', etc.); such as “Nasılsın?” and “How are you?”. When there is only one option with a question mark, or indicators like that, it is easier to find the answer. It is worth mentioning that it may not have been possible for learners to achieve higher achievement rates throughout the study since a new subject and new vocabulary items were taught each lesson.

5.1.4. Perspectives of the participants about the study Participants were satisfied with the results of the procedure in general. However, they had a lot of different perspectives in terms of how they have learnt English vocabulary through videos and American Sign

Language. And those varied perspectives brought the subject to the teaching methods that were used throughout the procedure.

Most of the participants indicated that they would prefer this teaching method in a face-to-face teaching environment. The main reason behind that preference might be because of their current learning habit which was face-to-face. They had not gotten used to remote learning modals as they were fairly new to the field because of the world pandemic which started in 2020. And they were not the only ones who were influenced by this kind of outbreak. It had a huge impact on all students around the globe as well as the education system itself (Anderson, 2021).

The nature of DHH individuals' learning style is based on the hand and face gestures (movements). Most of the participants stated that there should have been more detailed explanations and possibility to interact with the teacher during the learning process. In contrast to that, some of the participants had defended the idea of the comfort of learning from home and reduced stress. General thoughts of the participants were focused on the fact that the videos were not long enough to process the L1 and L2 vocabulary and ASL at the same time. The majority of the participants stated that they needed more time to process the content of the videos. In a similar vein, it was stated that it would have been better to learn ASL first and then to learn the L2 vocabulary with the ASL. Lastly, some participants stated that they would prefer Turkish Sign Language instead of ASL due to the fact that they already know TSL. However, the procedure included ASL because it is determined that learning English through an English language based sign language would contribute to the learning process better.

The teaching method applied throughout the study offered many handy options for participants. According to the claims of the participants, the videos could be replayed whenever, wherever and how much they needed. The time they passed via the website would increase the exposure to the educational content. And the exposure most probably would strengthen the learning ability of the participants (Paribakht & Wesche, 1997). Because it was possible to watch the videos over and over again and pause or rewind them, it would be more convenient for the participants as they would feel more comfortable during the learning process.

5.2. Implications for Practice

The discussions of the findings revealed suggestions for implications for teaching methods to deaf or hard-of-hearing individuals.

5.2.1. Implications for teaching As the study revealed that the participants had high motivation for learning English, there was a need for compulsory English lessons in schools for deaf or hard-of-hearing students. In addition, the study shows a need for extra materials, applications or websites that are specifically designed for DHH individuals. Such materials should be easily accessible for whoever is in need and could support their foreign language learning. Moreover, as they offer limitless time to learn the foreign language, they offer a comfort zone to the learners as well as ease the weight on the teachers' shoulders.

Secondly, as the results show, there is a need for more visual materials for DHH foreign language education. The DHH individuals rely on visuals when learning or communicating. Therefore, they will benefit greatly from visual teaching instruments. However, many studies also show that DHH learners benefit from subtitles as well. The notion is what the present study is based on and researched for. These findings may indicate that in the foreign language teaching classes, there is a need for presentations with subtitles. Studies claim that DHH individuals pay attention to the visual contents and subtitles at the same time, and make use of both channels (Bisson et al., 2014).

Lastly, the results of the study revealed that, when it came to distant learning via an application or a website, the participants needed extended and more detailed teaching contents. Some of the participants defended the idea of learning more vocabulary for each subject and grammar points. Teachers should pay attention to the beliefs and needs of the DHH learners when designing such tools.

CHAPTER 6

Conclusion

The overview of the research is presented in this chapter by summarizing the scope of the study. The purpose of the study, findings and implications for DHH foreign language education and suggestions for further studies are presented in this chapter. Moreover, the contributions to the DHH foreign language education field of the study are discussed here.

The present study attempted to reveal the effectiveness of distant English vocabulary learning via a website learning tool designed for DHH students. The study focused on effectiveness of ASL, website tools, and subtitles. The achievement rate was calculated with SPSS Statistics (Version 28) by comparing pre- and post-test results. Also, the perspectives of the participants were discussed in Chapter 5.

The results of the study indicated that the teaching process using a website tool specifically designed for DHH individuals, subtitles and ASL was indeed effective as the SPSS Statistics (Version 28) showed significant difference between the pretest and posttest. However, there was no significant difference among the achievement rate of female and male participants. Even though it was not significant, the overall achievement rate of female participants was found to be slightly higher, while the male success rate increased more between the pre- and post-test.

Findings about the perspectives of the participants on the process were remarkable. There were important suggestions from the participants. One of them was to teach the ASL before the process and the L2 vocabulary with it afterwards. The present study aimed to teach the vocabulary with ASL and subtitles and to do that, a video was filmed in ASL and L1 and L2 subtitles were added on the video. As it might have been difficult for participants to focus on three different contents at the same time, this suggestion has to be considered for. Another suggestion was for the length of the videos. The participants stated that they found the videos rather short. Though it was possible to pause or rewatch the videos, they said that it would be better if each vocabulary had more screen time. Also, one other important perspective was on the interactiveness of the study. The participants said they wanted it to be more interactive as they would like to ask questions to the teacher during the learning process. However, the study was designed as a distant tool to benefit from whenever and wherever or as one needs it. With the videos uploaded to the website this notion was possible, as the participants were able to watch the videos at their desired time of the day or as many times as they needed. Participants also stated that to be able to take the quizzes only once was a difficulty for them,

however, this was needed for the study to have more realistic insights of the effectiveness of it.

Some advantages also stated by the participants were the flexibility of the procedure and the fact that they could watch the videos whenever, wherever and how much they wanted. It was also claimed that the short length of the quizzes was an important advantage.

On the other hand, only 5 of the participants stated their opinions on the study and this situation leads to the fact that this study (at least the qualitative part) was limited in terms of the number of participants. If there were more participants to state opinions, there would have been more varied suggestions for the present study. Teaching both ASL and a foreign language at the same time can be a limitation as well as it may have been overwhelming for the learners. Also because deaf individuals make use of visual clues, the lack of visuals may cause a limitation. Final limitation to the study is the lack of an ASL and/or language introduction via ASL expert guidance on the videos as they were the main means of introduction of the English vocabulary teaching procedure.

The study revealed a need for further studies that would compare the difficulty level of vocabulary themes/subjects as well as studies to research a similar teaching method with teaching the ASL first and then teaching the L2 vocabulary with it. Moreover, studies need to be conducted to compare teaching English vocabulary with Turkish Sign Language and American Sign Language, as the majority of the participants stated they would prefer TSL instead of ASL.

Lastly, a more interactive study can be designed to understand how happy and successful the participants will be with such a teaching method, and can be compared with the method presented in this paper.

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Appendices

Appendix A: Demographic Information Form

Demographic Information

Asledu.com ID:

1) Gender:

- ☐ Male
- ☐ Female

2) Age

- ☐ 14-15
- ☐ 16-17
- ☐ 18-19

3) When did the hearing impairment happened?

- ☐ At birth
- ☐ 0-3 years old
- ☐ 3-12 years old
- ☐ 12 + years old

4) Do you use any tool to help you hear?

- ☐ Yes
- ☐ No

5) Do you have another family member with hearing impairment?

- ☐ No
- ☐ Yes – Mother
- ☐ Yes – Father
- ☐ Yes – Sibling(s)

6) Do you have English lessons at school?

- ☐ Yes
- ☐ No

7) Do you have English lessons outside of the school

- ☐ Yes
- ☐ No

8) If so; for how long have you been learning English?

- Less than a year
- 1-3 years
- 3-5 years
- More than 5 years

Appendix B: Pre- General English Vocabulary Knowledge Test**Genel İngilizce Sınavı 1 – Pre-test**

Soru 1. Aşağıdakilerden hangisi “kızgın” anlamına gelmektedir?

- a. disappointed
- b. angry
- c. nervous
- d. happy

Soru 2. Aşağıdakilerden hangisi “balıkçı” anlamına gelmektedir?

- a. nurse
- b. lawyer
- c. fisher
- d. teacher

Soru 3. Aşağıdakilerden hangisi “Salı” anlamına gelmektedir?

- a. Monday
- b. Thursday
- c. Friday
- d. Tuesday

Soru 4. Aşağıdakilerden hangisi “senin” anlamına gelmektedir?

- a. your
- b. his
- c. mine
- d. me

Soru 5. Aşağıdakilerden hangisi “çorba” anlamına gelmektedir?

- a. soup
- b. bread
- c. chips
- d. carrot

Soru 6. Aşağıdakilerden “ağız” anlamına gelmektedir?

- a. nose
- b. ear
- c. mouth
- d. face

Soru 7. Aşağıdakilerden hangisi “Nasılsın?” anlamına gelmektedir?

- a. How are you?
- b. What is your name?
- c. Where are you from?
- d. Where do you live?

Soru 8. Aşağıdakilerden hangisi “tavşan” anlamına gelmektedir?

- a. fish
- b. rabbit

- c. cat
- d. dog

Soru 9. Aşağıdakilerden hangisi “yumurta” anlamına gelmektedir?

- a. onion
- b. bread
- c. cereal
- d. egg

Soru 10. Aşağıdakilerden hangisi “büyükanne” anlamına gelmektedir?

- a. grandmother
- b. grandfather
- c. aunt
- d. uncle

Soru 11. Aşağıdakilerden hangisi “kol” anlamına gelmektedir?

- a. leg
- b. back
- c. arm
- d. body

Soru 12. Aşağıdakilerden hangisi “sıkıcı” anlamına gelmektedir?

- a. interesting
- b. scary
- c. fun
- d. boring

Soru 13. Aşağıdakilerden hangisi “kurabiye” anlamına gelmektedir?

- a. soda
- b. popcorn
- c. snack
- d. cookie

Soru 14. Aşağıdakilerden hangisi “yaz” anlamına gelmektedir?

- a. spring
- b. winter
- c. summer
- d. fall

Soru 15. Aşağıdakilerden hangisi “şapka” anlamına gelmektedir?

- a. hat
- b. dress
- c. shoes
- d. pants

Soru 16. Aşağıdakilerden hangisi “soğuk” anlamına gelmektedir?

- a. rain
- b. cold
- c. warm

d. snow

Soru 17. Aşağıdakilerden hangisi “kaşık” anlamına gelmektedir?

- a. fork
- b. whisk
- c. spoon
- d. spatula

Soru 18. Aşağıdakilerden hangisi “çilek” anlamına gelmektedir?

- a. broccoli
- b. pear
- c. corn
- d. strawberry

Soru 19. Aşağıdakilerden hangisi “12” anlamına gelmektedir?

- a. twelve
- b. eight
- c. two
- d. one

Soru 20. Aşağıdakilerden hangisi “a” harfi ile başlamaktadır?

- a. -unny
- b. -pple
- c. -cissors
- d. -urse

Appendix C: Post- General English Knowledge Test**Genel İngilizce Sınavı 2 – Post-test / Immediate**

Soru 1. Aşağıdakilerden hangisi “peynir” anlamına gelmektedir?

- a. arm
- b. winter
- c. fruit
- d. cheese
- e. eleven

Soru 2. Aşağıdakilerden hangisi “fotoğrafçı” anlamına gelmektedir?

- a. photographer
- b. hot
- c. pear
- d. morning
- e. interesting

Soru 3. Aşağıdakilerden hangisi “iki” anlamına gelmektedir?

- a. cereal
- b. two
- c. six
- d. teeth
- e. night

Soru 4. Aşağıdakilerden hangisi “yüz” anlamına gelmektedir?

- a. boring
- b. lettuce
- c. face
- d. plate
- e. mine

Soru 5. Aşağıdakilerden hangisi “fare” anlamına gelmektedir?

- a. shock
- b. mouse
- c. cousin
- d. juice
- e. lightning

Soru 6. Aşağıdakilerden hangisi “saç” anlamına gelmektedir?

- a. hair
- b. fifteen
- c. popcorn
- d. teacher
- e. season

Soru 7. Aşağıdakilerden hangisi “tavuk” anlamına gelmektedir?

- a. mouth
- b. cheese
- c. funny

- d. his
- e. chicken

Soru 8. Aşağıdakilerden hangisi “çatal” anlamına gelmektedir?

- a. temperature
- b. fork
- c. soup
- d. goodbye
- e. doctor

Soru 9. Aşağıdakilerden hangisi “kiraz” anlamına gelmektedir?

- a. cherry
- b. warm
- c. serious
- d. Monday
- e. angry

Soru 10. Aşağıdakilerden hangisi “abur cubur” anlamına gelmektedir?

- a. thirteen
- b. spoon
- c. snack
- d. engineer
- e. vegetable

Soru 11. Aşağıdakilerden hangisi “kibirli” anlamına gelmektedir?

- a. fall
- b. arrogant
- c. bread
- d. glasses
- e. snow

Soru 12. Aşağıdakilerden hangisi “yorgun” anlamına gelmektedir?

- a. apple
- b. milk
- c. tired
- d. back
- e. afternoon

Soru 13. Aşağıdakilerden hangisi “gece” anlamına gelmektedir?

- a. night
- b. greenbeans
- c. funny
- d. eye
- e. hoodie

Soru 14. Aşağıdakilerden hangisi “ilkbahar” anlamına gelmektedir?

- a. hello
- b. doctor
- c. spring

- d. sun
- e. scissors

Soru 15. Aşağıdakilerden hangisi “rüzgar(lı)” anlamına gelmektedir?

- a. soup
- b. wind
- c. two
- d. fisher
- e. popcorn

Soru 16. Aşağıdakilerden hangisi “ayakkabı” anlamına gelmektedir?

- a. excited
- b. onion
- c. shoe
- d. ear
- e. banana

Soru 17. Aşağıdakilerden hangisi “seninki” anlamına gelmektedir?

- a. yours
- b. sister
- c. yoghurt
- d. pear
- e. cat

Soru 18. Aşağıdakilerden hangisi “teyze / hala” anlamına gelmektedir?

- a. foot
- b. nurse
- c. rain
- d. lettuce
- e. aunt

Soru 19. Aşağıdakilerden hangisi “b” harfi ile başlamaktadır?

- a. -ushroom
- b. -ereal
- c. -roccoli
- d. -ngry
- e. -en

Soru 20. Aşağıdakilerden hangisi “merhaba” anlamına gelmektedir?

- a. three
- b. hello
- c. whisk
- d. annoying
- e. snack

Appendix D: Quiz Questions

Sınav 1 - Sayılar – Hafta 1 Quiz 1 - Numbers

Soru 1

Aşağıdakilerden hangisi “on iki” anlamına gelmektedir?

- a. one
- b. five
- c. twelve
- d. twenty

Soru 2

Aşağıdakilerden hangisi “yedi” anlamına gelmektedir?

- a. seven
- b. eleven
- c. two
- d. eight

Soru 3

Aşağıdakilerden hangisi “beş” anlamına gelmektedir?

- a. three
- b. five
- c. ten
- d. two

Soru 4

Aşağıdakilerden hangisi “sekiz” anlamına gelmektedir?

- a. eight
- b. three
- c. one
- d. ten

Soru 5

Aşağıdakilerden hangisi “on” anlamına gelmektedir?

- a. five
- b. two
- c. six
- d. ten

Sınav 2 – Tanışma - Hafta 2 Quiz 2 - Meet

Soru 1

Aşağıdakilerden hangisi “nasılsın?” anlamına gelmektedir?

- a. My name is ...
- b. Goodbye
- c. How are you?
- d. Hello

Soru 2

Aşağıdakilerden hangisi “merhaba” anlamına gelmektedir?

- a. Hello
- b. What’s up?
- c. My name is ...
- d. Goodbye

Soru 3

Aşağıdakilerden hangisi “naber?” anlamına gelmektedir?

- a. Hello
- b. My name is ...
- c. Goodbye
- d. What’s up?

Soru 4

Aşağıdakilerden hangisi “güle güle” anlamına gelmektedir?

- a. Goodbye
- b. How are you?
- c. Hello
- d. My name is ...

Soru 5

Aşağıdakilerden hangisi “benim adım ...” anlamına gelmektedir?

- a. Goodbye
- b. My name is ...
- c. Hello
- d. What’s up?

Sınav 3 – Zamirler – Hafta 2**Quiz 3 - Pronouns****Soru 1**

Aşağıdakilerden hangisi “senin” anlamına gelmektedir?

- a. mine
- b. your
- c. my
- d. their

Soru 2

Aşağıdakilerden hangisi “onların” anlamına gelmektedir?

- a. their
- b. my
- c. his
- d. her

Soru 3

Aşağıdakilerden hangisi “benimki” anlamına gelmektedir?

- a. her
- b. mine
- c. my
- d. yours

Soru 4

Aşağıdakilerden hangisi “bizim” anlamına gelmektedir?

- a. our
- b. their
- c. his
- d. my

Soru 5

Aşağıdakilerden hangisi “onun” anlamına gelmektedir?

- a. my
- b. yours
- c. its
- d. our

Sınav 4 – Aile – Hafta 3**Quiz 4 - Family****Soru 1**

Aşağıdakilerden hangisi “baba” anlamına gelmektedir?

- a. sister
- b. father
- c. grandmother
- d. aunt

Soru 2

Aşağıdakilerden hangisi “kız kardeş” anlamına gelmektedir?

- a. sister
- b. mother
- c. brother
- d. cousin

Soru 3

Aşağıdakilerden hangisi “kuzen” anlamına gelmektedir?

- a. father
- b. grandfather
- c. cousin
- d. sister

Soru 4

Aşağıdakilerden hangisi “amca / dayı” anlamına gelmektedir?

- a. uncle
- b. cousin
- c. mother
- d. aunt

Soru 5

Aşağıdakilerden hangisi “büyük anne” anlamına gelmektedir?

- a. father
- b. grandmother
- c. brother
- d. son

Sınav 5 – Evcil Hayvan – Hafta 3**Quiz 5 - Pets****Soru 1**

Aşağıdakilerden hangisi “evcil hayvan” anlamına gelmektedir?

- a. dog
- b. rabbit
- c. cat
- d. pet

Soru 2

Aşağıdakilerden hangisi “kaplumbağa” anlamına gelmektedir?

- a. turtle
- b. hamster
- c. rabbit
- d. dog

Soru 3

Aşağıdakilerden hangisi “kedi” anlamına gelmektedir?

- a. pet
- b. cat
- c. fish
- d. hamster

Soru 4

Aşağıdakilerden hangisi “tavşan” anlamına gelmektedir?

- a. cat
- b. hamster
- c. rabbit
- d. turtle

Soru 5

Aşağıdakilerden hangisi “köpek” anlamına gelmektedir?

- a. dog
- b. hamster
- c. rabbit
- d. fish

Sınav 6 – Yüz – Hafta 4**Quiz 6 - Face****Soru 1**

Aşağıdakilerden hangisi “ağız” anlamına gelmektedir?

- a. nose
- b. teeth
- c. ear
- d. mouth

Soru 2

Aşağıdakilerden hangisi “kulak” anlamına gelmektedir?

- a. ear
- b. nose
- c. hair
- d. eye

Soru 3

Aşağıdakilerden hangisi “göz” anlamına gelmektedir?

- a. eye
- b. mouth
- c. teeth
- d. nose

Soru 4

Aşağıdakilerden hangisi “diş” anlamına gelmektedir?

- a. mouth
- b. teeth
- c. hair
- d. nose

Soru 5

Aşağıdakilerden hangisi “saç” anlamına gelmektedir?

- a. mouth
- b. teeth
- c. hair
- d. nose

Sınav 7 – Vücut – Hafta 4**Quiz 7 - Body****Soru 1**

Aşağıdakilerden hangisi “kol” anlamına gelmektedir?

- a. face
- b. arm
- c. foot
- d. back

Soru 2

Aşağıdakilerden hangisi “ayak” anlamına gelmektedir?

- a. foot
- b. head
- c. back
- d. arm

Soru 3

Aşağıdakilerden hangisi “sırt” anlamına gelmektedir?

- a. head
- b. back
- c. leg
- d. foot

Soru 4

Aşağıdakilerden hangisi “vücut” anlamına gelmektedir?

- a. arm
- b. leg
- c. stomach
- d. body

Soru 5

Aşağıdakilerden hangisi “bacak” anlamına gelmektedir?

- a. stomach
- b. leg
- c. face
- d. arm

Sınav 8 – Hisler – Hafta 5**Quiz 8 - Emotions****Soru 1**

Aşağıdakilerden hangisi “gergin” anlamına gelmektedir?

- a. tired
- b. scared
- c. nervous
- d. angry

Soru 2

Aşağıdakilerden hangisi “mutlu” anlamına gelmektedir?

- a. happy
- b. excited
- c. sad
- d. tired

Soru 3

Aşağıdakilerden hangisi “kızgın” anlamına gelmektedir?

- a. shock(ed)
- b. scared
- c. sad
- d. angry

Soru 4

Aşağıdakilerden hangisi “heyecanlı” anlamına gelmektedir?

- a. excited
- b. happy
- c. tired
- d. sad

Soru 5

Aşağıdakilerden hangisi “korkmuş” anlamına gelmektedir?

- a. angry
- b. scared
- c. nervous
- d. happy

Sınav 9 – Hisler 2 – Hafta 5
Quiz 9 –Describing feelings

Soru 1

Aşağıdakilerden hangisi “ilginç” anlamına gelmektedir?

- a. interesting
- b. boring
- c. annoying
- d. friendly

Soru 2

Aşağıdakilerden hangisi “komik” anlamına gelmektedir?

- a. funny
- b. lazy
- c. sirious
- d. arrogant

Soru 3

Aşağıdakilerden hangisi “tembel” anlamına gelmektedir?

- a. funny
- b. friendly
- c. lazy
- d. interesting

Soru 4

Aşağıdakilerden hangisi “arkadaş canlısı” anlamına gelmektedir?

- a. boring
- b. lazy
- c. funny
- d. friendly

Soru 5

Aşağıdakilerden hangisi “sıkıcı” anlamına gelmektedir?

- a. arrogant
- b. interesting
- c. boring
- d. lazy

Sınav 10 – Kahvaltı – Hafta 6
Quiz 10 - Breakfast

Soru 1

Aşağıdakilerden hangisi “ekmek” anlamına gelmektedir?

- a. cereal
- b. bread
- c. toast
- d. egg

Soru 2

Aşağıdakilerden hangisi “yumurta” anlamına gelmektedir?

- a. egg
- b. sausage
- c. cheese
- d. yoghurt

Soru 3

Aşağıdakilerden hangisi “mısır gevreği” anlamına gelmektedir?

- a. cereal
- b. egg
- c. cheese
- d. dinner

Soru 4

Aşağıdakilerden hangisi “peynir” anlamına gelmektedir?

- a. bread
- b. toast
- c. coffee
- d. cheese

Soru 5

Aşağıdakilerden hangisi “kahvaltı” anlamına gelmektedir?

- a. bread
- b. breakfast
- c. egg
- d. sausage

**Sınav 11 – Öğle / Akşam Yemeği –
Hafta 6
Quiz 11 – Lunch / Dinner**

Soru 1

Aşağıdakilerden hangisi “havuç” anlamına gelmektedir?

- a. milk
- b. carrot
- c. potato
- d. green beans

Soru 2

Aşağıdakilerden hangisi “süt” anlamına gelmektedir?

- a. milk
- b. potato
- c. rice
- d. bean

Soru 3

Aşağıdakilerden hangisi “fasülye” anlamına gelmektedir?

- a. bean
- b. carrot
- c. rice
- d. potato

Soru 4

Aşağıdakilerden hangisi “tereyağı” anlamına gelmektedir?

- a. corn
- b. rice
- c. butter
- d. green beans

Soru 5

Aşağıdakilerden hangisi “mısır” anlamına gelmektedir?

- a. milk
- b. potato
- c. rice
- d. corn

**Sınav 12 – Abur Cubur – Hafta 7
Quiz 12 - Snacks**

Sınav 1

Aşağıdakilerden hangisi “çikolata” anlamına gelmektedir?

- a. cookie
- b. popcorn
- c. soda
- d. chocolate

Sınav 2

Aşağıdakilerden hangisi “gazlı içecek” anlamına gelmektedir?

- a. dessert
- b. soda
- c. popcorn
- d. cracker

Soru 3

Aşağıdakilerden hangisi “patlamış mısır” anlamına gelmektedir?

- a. popcorn
- b. chocolate
- c. cracker
- d. soda

Soru 4

Aşağıdakilerden hangisi “şeker” anlamına gelmektedir?

- a. cracker
- b. chips
- c. candy
- d. dessert

Soru 5

Aşağıdakilerden hangisi “cips” anlamına gelmektedir?

- a. chips
- b. popcorn
- c. candy
- d. chocolate

Sınav 13 – Meyve / Sebze – Hafta 7
Quiz 13 – Fruits and Vegetables

Soru 1

Aşağıdakilerden hangisi “armut” anlamına gelmektedir?

- a. mushroom
- b. lettuce
- c. pear
- d. fruit

Soru 2

Aşağıdakilerden hangisi “soğan” anlamına gelmektedir?

- a. onion
- b. peach
- c. grape
- d. strawberry

Soru 3

Aşağıdakilerden hangisi “meyve” anlamına gelmektedir?

- a. watermelon
- b. fruit
- c. onion
- d. melon

Soru 4

Aşağıdakilerden hangisi “çilek” anlamına gelmektedir?

- a. melon
- b. pear
- c. strawberry
- d. lettuce

Soru 5

Aşağıdakilerden hangisi “üzüm” anlamına gelmektedir?

- a. watermelon
- b. pear
- c. onion
- d. grape

Sınav 14 – Mutfak Eşyaları – Hafta 8
Quiz 14 – Kitchen appliances

Soru 1

Aşağıdakilerden hangisi “makas” anlamına gelmektedir?

- a. scissors
- b. plate
- c. fork
- d. whisk

Soru 2

Aşağıdakilerden hangisi “merdane / oklava” anlamına gelmektedir?

- a. rolling pin
- b. fork
- c. pot
- d. spatula

Soru 3

Aşağıdakilerden hangisi “kaşık” anlamına gelmektedir?

- a. whisk
- b. pot
- c. spoon
- d. fork

Soru 4

Aşağıdakilerden hangisi “tencere” anlamına gelmektedir?

- a. spatula
- b. pot
- c. rolling pin
- d. peeler

Soru 5

Aşağıdakilerden hangisi “soyacak”

- a. pot
- b. fork
- c. peeler
- d. spatula

Sınav 15 – Hava Durumu – Hafta 8
Quiz 15 - Weather

Soru 1

Aşağıdakilerden hangisi “güneş(li)” anlamına gelmektedir?

- a. tempretature
- b. snow
- c. rain
- d. sun

Soru 2

Aşağıdakilerden hangisi “soğuk” anlamına gelmektedir?

- a. snow
- b. cold
- c. wind
- d. lightning

Soru 3

Aşağıdakilerden hangisi “yağmur(lu)” anlamına gelmektedir?

- a. rain
- b. hot
- c. temperature
- d. warm

Soru 4

Aşağıdakilerden hangisi “şimşek” anlamına gelmektedir?

- a. sun
- b. warm
- c. lightning
- d. rain

Soru 5

Aşağıdakilerden hangisi “sıcak” anlamına gelmektedir?

- a. rain
- b. hot
- c. cool
- d. wind

Sınav 16 – Günler – Hafta 9
Quiz 16 - Days

Soru 1

Aşağıdakilerden hangisi “Perşembe” anlamına gelmektedir?

- a. Wednesday
- b. Friday
- c. Thursday
- d. Sunday

Soru 2

Aşağıdakilerden hangisi “Pazartesi” anlamına gelmektedir?

- a. Friday
- b. Tuesday
- c. Monday
- d. Saturday

Soru 3

Aşağıdakilerden hangisi “Cumartesi” anlamına gelmektedir?

- a. Saturday
- b. Tuesday
- c. Friday
- d. Wednesday

Soru 4

Aşağıdakilerden hangisi “Çarşamba” anlamına gelmektedir?

- a. Sunday
- b. Monday
- c. Wednesday
- d. Friday

Soru 5

Aşağıdakilerden hangisi “Salı” anlamına gelmektedir?

- a. Monday
- b. Tuesday
- c. Wednesday
- d. Thursday

Sınav 17 – Mevsimler – Hafta 9
Quiz 17 - Seasons

Soru 1

Aşağıdakilerden hangisi “sonbahar” anlamına gelmektedir?

- a. season
- b. fall
- c. winter
- d. spring

Soru 2

Aşağıdakilerden hangisi “mevsim” anlamına gelmektedir?

- a. season
- b. spring
- c. winter
- d. summer

Soru 3

Aşağıdakilerden hangisi “kış” anlamına gelmektedir?

- a. summer
- b. fall
- c. spring
- d. winter

Soru 4

Aşağıdakilerden hangisi “yaz” anlamına gelmektedir?

- a. summer
- b. winter
- c. season
- d. fall

Soru 5

Aşağıdakilerden hangisi “ilkbahar” anlamına gelmektedir?

- a. winter
- b. fall
- c. spring
- d. summer

Sınav 18 – Kıyafetler – Hafta 10
Quiz 18 - Clothes

Soru 1

Aşağıdakilerden hangisi “elbise” anlamına gelmektedir?

- a. hoodie
- b. shoe
- c. glasses
- d. dress

Soru 2

Aşağıdakilerden hangisi “ayakkabı” anlamına gelmektedir?

- a. glasses
- b. shoe
- c. jumper
- d. jacket

Soru 3

Aşağıdakilerden hangisi “ceket” anlamına gelmektedir?

- a. jacket
- b. dress
- c. hoodie
- d. shoe

Soru 4

Aşağıdakilerden hangisi “gözlük” anlamına gelmektedir?

- a. shoe
- b. dress
- c. jumper
- d. glasses

Soru 5

Aşağıdakilerden hangisi “şapka” anlamına gelmektedir?

- a. shoe
- b. hat
- c. dress
- d. jumper

Sınav 19 – Meslekler – Hafta 10**Quiz 19 - Occupations****Soru 1**

Aşağıdakilerden hangisi “hemşire” anlamına gelmektedir?

- a. nurse
- b. teacher
- c. lawyer
- d. fisher

Soru 2

Aşağıdakilerden hangisi “psikolog” anlamına gelmektedir?

- a. teacher
- b. pharmacist
- c. psychologist
- d. photographer

Soru 3

Aşağıdakilerden hangisi “avukat” anlamına gelmektedir?

- a. nurse
- b. photographer
- c. lawyer
- d. teacher

Soru 4

Aşağıdakilerden hangisi “eczacı” anlamına gelmektedir?

- a. fisher
- b. pharmacist
- c. photographer
- d. psychologist

Soru 5

Aşağıdakilerden hangisi “öğretmen” anlamına gelmektedir?

- a. pharmacist
- b. lawyer
- c. nurse
- d. teacher

Appendix E: Open-ended questionnaire

- 1) Kullanıcı numaranız nedir?
- 2) Teknoloji kullanımı ile dil öğretmeyi hedefleyen bu çalışmayı faydalı buldunuz mu, cevabınız evet ise hangi yönlerden?
- 3) Dil öğrenimini web sitesi üzerinden, video ve mini sınavlar aracılığı ile sürdürmek ister misiniz?
- 4) Süreç ilerlerken kendinizi öğrenme konusunda rahat hissettiniz mi?
- 5) Bu çalışmada kullanılan yöntemi örgün eğitimde de görmek ister misiniz?
- 6) Çalışma sürecinde sizi en çok zorlayan şey ne oldu?
- 7) Videolar yeterince anlaşılır mıydı? Cevabınız hayır ise daha anlaşılır olması için ne önerirsiniz?
- 8) Süreç içerisinde kullanılan kaynakları yeterli buldunuz mu? Var olanların haricinde ne gibi kaynaklar görmek isterdiniz?
- 9) Süreç içerisinde öğrendiğiniz kelimeler ile kendinizi basit şekilde ifade edebileceğinizi düşünüyor musunuz?
- 10) Bu projenin akademik veya özel hayatınıza bir katkısı olacağını düşünüyor musunuz? Cevabınız evet ise ne gibi katkılar sağlayacağını düşünüyorsunuz?
- 11) Bu süreç size yabancı dil öğrenmek konusunda bir özgüven kazandırdı mı?
- 12) Bu çalışma, dil eğitimi sürdürmek konusunda özgüven veya istek kazandırdı mı?

- 13) Proje beklentilerinizi karşıladı mı? Cevabınız evet ise ne gibi yönlerden?
- 14) Web-sitesine ulaşmakta zorluk yaşadınız mı? Cevabınız evet ise ne gibi zorluklar yaşadınız?
- 15) Siteye akıllı telefondan mı yoksa bilgisayardan mı ulaşmayı daha çok tercih ettiniz?
- 16) Bu eğitimi yüz yüze mi tercih ederdiniz yoksa videolu anlatım sizin için yeterli oldu mu?
- 17) Bu süreçte aldığınız eğitimin sizin için örgün eğitime göre ne gibi avantajları veya dezavantajları oldu?
- 18) Bu eğitime katılmaktaki temel motivasyonunuz neydi?
- 19) Çalışmadan önceki yabancı dil öğrenimine bakış açınız ile çalışmadan sonraki bakış açınız arasında bir fark var mı? Varsa ne gibi bir fark var?
- 20) Videolardan sonra çözülmesi gereken quiz (mini sınavlar) sorularından memnun kaldınız mı? Öğrenimlerinizi ölçmekte yeterli olduklarını düşünüyor musunuz?

Appendix F: The subjects and the vocabulary taught during the procedure.

1. Alphabet: a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, r, s, t, u, v, w, x, y, z
2. Numbers: one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty
3. Meeting: “How are you?”, “What’s up?”, “My name is...”, “Goodbye”, “Hello”
4. Pronouns: me/I, you (singular), he/she/it, we, you (plural), they/them, my, your (singular), her/his/its, our, your (plural), their, mine, yours
5. Family: cousin (female and male), uncle, aunt, grandfather, grandmother, siblings, brother, sister, son, daughter, baby, mother, father,
6. Pets: animal, pet, cat, mouse, turtle, rabbit, bird, fish, dog
7. Face: face, hair, teeth, ear, mouth, nose, eye
8. Body: body, hand, foot, back, stomach, leg, arm, head
9. Emotions: worried, disappointed, excited, nervous, tired, scared, shock(ed), angry, sad, happy
10. Describing feelings: serious, lazy, interesting, funny, friendly, boring, arrogant, annoying
11. Breakfast: breakfast, bread, juice, yoghurt, cheese, coffee, cereal, toast, sausage, egg
12. Lunch/diner: lunch, diner, milk, lettuce, butter, corn, potato, green beans, carrot, steak, chicken, bean, rice, fish, pasta, salad, soup, french fries, hamburger, pizza, sandwich
13. Snacks: snack, cracker, cookie, chocolate, dessert, popcorn, candy, soda, chips
14. Fruits and vegetables: vegetable, broccoli, mushroom, onion, lettuce, fruit, strawberry, peach, pear, watermelon, melon, grape, cherry, banana, apple
15. Kitchen utensils: plate, pot, fork, rolling pin, peeler, whisk, spoon, spatula, scissors
16. Weather: temperature, wind, cloud, snow, lightning, rain, sunny, warm, cool, hot, cold, weather
17. Days: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday, night, afternoon, morning
18. Seasons: season, fall, summer, spring, winter
19. Clothes: hoodie, jumper, shoes, jacket, hat, glasses, dress, shirt, tshirt, clothes
20. Occupations: teacher, psychologist, photographer, pharmacist, nurse, lawyer, fisher, businessperson, engineer, cashier, athlete, actor/actress, accountant

Appendix G: Direct link (QR code) to the website, ASLEDU.COM



Appendix H



BURSA ULUDAĞ ÜNİVERSİTESİ ARAŞTIRMA VE YAYIN ETİK KURULLARI (Sosyal ve Beşeri Bilimler Araştırma ve Yayın Etik Kurulu) TOPLANTISI

OTURUM TARİHİ
25 MART 2022

OTURUM SAYISI
2022-03

KARAR NO 1: Eğitim Bilimleri Enstitüsü Müdürlüğü'nden alınan Yabancı Diller Eğitimi Ana Bilim Dalı İngiliz Dili Eğitimi Bilim Dalı yüksek lisans programı öğrencisi Çağla Deniz PULAT'ın Prof. Dr. Esim GÜRSOY'un danışmanlığında yürüteceği "Amerikan İşaret Dili Yoluyla Bilgisayar Destekli Yabancı Dil Öğreniminin İşitme Engelli Öğrenci Üzerindeki Etkisi" konulu tez yazılması kapsamında uygulanacak test ve görüşme sorularının Seçimlerinin İncelenmesi" başlıklı araştırması kapsamında uygulanacak görüşme sorularının değerlendirilmesine geçildi.

Yapılan görüşmeler sonunda; Eğitim Bilimleri Enstitüsü, Yabancı Diller Eğitimi Ana Bilim Dalı İngiliz Dili Eğitimi Bilim Dalı yüksek lisans programı öğrencisi Çağla Deniz PULAT'ın Prof. Dr. Esim GÜRSOY'un danışmanlığında yürüteceği "Amerikan İşaret Dili Yoluyla Bilgisayar Destekli Yabancı Dil Öğreniminin İşitme Engelli Öğrenci Üzerindeki Etkisi" konulu tez çalışması kapsamında uygulanacak test ve görüşme sorularının fikri, hukuki ve telif hakları bakımından metot ve ölçeğine ilişkin sorumluluğu başvurusuca ait olmak üzere uygun olduğuna oybirliği ile karar verildi.

Prof. Dr. Feridun YILMAZ
Kurul Başkanı

Prof. Dr. Abamuslim AKDEMİR
Üye

Prof. Dr. Doğan ŞENYÜZ
Üye

Prof. Dr. Ayşe OĞUZLAR
Üye

Prof. Dr. Vejdi BİLGİN
Üye

Prof. Dr. Gülay GÖĞÜŞ
Üye

Prof. Dr. Alev SINAR UĞURLU
Üye

Özgeçmiş

Doğum Yeri ve Yılı	:		
Öğr. Gördüğü Kurumlar	:	Başlama Yılı	Bitirme Yılı
Lise		2010	2014
Lisans		2014	2018
Yüksek Lisans		2019	2022
			Kurum Adı
			Şişli Anadolu Lisesi
			Gazi Üniversitesi
			Bursa Uludağ Üniversitesi

Bildiği Yabancı Diller ve Düzeyi : İngilizce- İleri, İspanyolca- B2

Çalıştığı Kurumlar	:	Başlama ve Ayrılma Tarihleri	Kurum Adı
		1. 2018-2019	Escola Enric Farreny
		2. 2020-2022	Konuşma Kulübü
		3. 2021	Escola Enric Farreny

Yurtdışı Görevleri :

Kullandığı Burslar : Kredi ve Yurtlar Kurumu Öğrenim Bursu

Aldığı Ödüller :

Üye olduğu Bilimsel ve Mesleki Topluluklar :

Editör veya Yayın Kurulu Üyeliği :

Yurt İçi ve Yurt Dışında Katıldığı Projeler : Erasmus+ Internship (Escola Enric Farreny – Spain, 2019 and 2021)

Katıldığı Yurt İçi ve Yurt Dışı Bilimsel Toplantılar : The Third, Fourth and Sixth Annual ELT Undergraduate Students Conference, SAURADELT (Presentation) 2017, 2018, 2020

The Second Geltus Conference (Presentation) 2018

VI. International Conference on Research in Applied Linguistics, ICRAL2020 (Presentation) 2020

Yayımlanan Çalışmalar :

14/10/2022

Çağla Deniz PULAT

BURSA ULUDAĞ ÜNİVERSİTESİ

TEZ ÇOĞALTMA VE ELEKTRONİK YAYIMLAMA İZİN FORMU

Yazar Adı Soyadı	Çağla Deniz PULAT
Tez Adı	Amerikan İşaret Dili Yoluyla Bilgisayar Destekli Yabancı Dil Öğreniminin İşitme Engelli Öğrencilerin Kelime Öğrenimi Üzerindeki Etkisi
Enstitü	Eğitim Bilimleri Enstitüsü
Anabilim Dalı	Yabancı Diller Eğitimi
Bilim Dalı	İngiliz Dili Eğitimi
Tez Türü	Yüksek Lisans
Tez Danışman(lar)ı	Prof. Dr. Esim GÜRSOY
Çoğaltma (FotokopiÇekim) İzni	<input type="checkbox"/> Tezimden fotokopi çekilmesine izin veriyorum. <input checked="" type="checkbox"/> Tezimin sadece içindekiler, özet, kaynakça ve içeriğinin %10 bölümünün fotokopi çekilmesine izin veriyorum. <input type="checkbox"/> Tezimden fotokopi çekilmesine izin vermiyorum.
Yayımlama İzni	<input checked="" type="checkbox"/> Tezimin elektronik ortamda yayımlanmasına izin veriyorum. <input type="checkbox"/> Tezimin elektronik ortamda yayımlanmasının Ertelelenmesini istiyorum. 1yıl <input type="checkbox"/> 2yıl <input type="checkbox"/> 3yıl <input type="checkbox"/> <input type="checkbox"/> Tezimin elektronik ortamda yayımlanmasına izin vermiyorum.

Hazırlamış olduğum tezimin yukarıda belirttiğim hususlar dikkate alınarak, fikri mülkiyet haklarım saklı kalmak üzere Uludağ Üniversitesi Kütüphane ve Dokümantasyon Daire Başkanlığı tarafından hizmete sunulmasına izin verdiğimi beyan ederim.

14/10/2022

İmza: