Mehmet Akif Ersoy Üniversitesi Uygulamalı Bilimler Dergisi

Journal of Applied Sciences of Mehmet Akif Ersoy University

UBD

Design of Common European Framework of Reference for Languages (CEFR) Based Web Platform for Learning English through Video Scenes

Emre KARAGÖZ[1*] [ID], Hüseyin Köksal ÇOBANOĞLU[2] [ID]

[1] Lecturer, Dr., Dokuz Eylul University, Distance Education Application and Research Center, İzmir, Türkiye

[2] Lecturer, Dr., Dokuz Eylul University, The School of Foreign Languages, İzmir, Türkiye

ABSTRACT

Tough competition conditions that exist in today's business world have created the need for individuals who want to exist in this environment to be more qualified. Especially, speaking the English language as a foreign language and having the ability to use its language features makes up an important part of these needs. Through English language education process, both instructors and students need to be able to get the educational materials they need. Widespread use of the internet and computer technologies enabled people to access new educational materials used in the field of education. Online courses, electronic dictionaries, question-answer applications, and game apps on online platforms are some of these educational materials. Today, everyone can reach any language courses or any other materials that support their language learning via a mobile phone and other similar gadgets from anywhere. The Common European Framework of Reference for Languages (CEFR) has had a profoundly important role in learning and teaching of languages since it was published. The use of this standard framework in English language teaching helps the development process of foreign language teaching and learning depending on the level of the student. CEFR framework is made up of six sections. Every section has many words related to a level of English. This study has been focused on a web-based platform depending on CEFR standards that will help the process of language education. In the study, it was aimed to create a large database table to determine the CEFR levels of the films used in the system and to contribute to the process of learning English words and movie scenes suitable for the students' own level.

Keywords: CEFR, Web-Based Learn, Video Words, Student-Instructor Interaction.

* Sorumlu yazar/Corresponding author
E-mail/e-ileti: emre.karagoz@deu.edu.tr

Video Sahneleriyle İngilizce Öğrenmek İçin Ortak Avrupa Dil Referans Çerçevesi (CEFR) Tabanlı Web Platformunun Tasarımı

ÖZET

Günümüz iş dünyasında var olan zorlu rekabet koşulları, bu ortamda var olmak isteyen bireylerin daha nitelikli olma ihtiyacını gerekli kılmıştır. Özellikle İngilizceyi yabancı dil olarak konuşmak ve dil özelliklerini kullanma becerisine sahip olmak bu ihtiyaçların önemli bir bölümünü oluşturmaktadır. İngilizce eğitim süreci boyunca hem eğitmenlerin hem de öğrencilerin ihtiyaç duydukları eğitim materyallerine ulaşabilmeleri gerekmektedir. İnternet ve bilgisayar teknolojilerinin yaygın kullanımı, insanların eğitim alanında kullanılan yeni eğitim materyallerine erişimini olanaklı hale getirmiştir. Çevrimiçi kurslar, elektronik sözlükler, soru-cevap uygulamaları ve çevrimiçi platformlardaki oyun uygulamaları bu eğitim materyallerinden bazılarıdır. Bugün herkes dil öğrenimini destekleyen herhangi bir dil kursuna veya diğer materyallere cep telefonu ve benzeri araçlar aracılığıyla her yerden erişebilir. Ortak Avrupa Dil Referans Çerçevesi'nin (CEFR), yayınlandığı günden bu yana dillerin öğrenilmesi ve öğretilmesinde çok önemli bir rolü olagelmiştir. Bu standart çerçevenin İngilizce öğretiminde kullanılması, öğrencinin seviyesine bağlı olarak yabancı dil öğretimi ve öğreniminin gelişim sürecine yardımcı olur. CEFR çerçevesi 6 bölümden oluşmaktadır. Her bölümde bir İngilizce seviyesiyle ilgili birçok kelime vardır. Bu çalışma, dil eğitimi sürecine yardımcı olacak CEFR standartlarına dayalı web tabanlı bir platforma odaklanmıştır. Çalışma kapsamında özellikle sistemde kullanılan filmlerin CEFR seviyelerinin belirlenmesi için büyük bir veritabanı tablosunun oluşturulması ve öğrencilerin kendi seviyelerine uygun film sahneleri ile İngilizce kelimeleri öğrenme süreçlerine katkı sağlanması hedeflenmiştir.

Anahtar kelimeler: CEFR, Web-Tabanlı Öğrenme, Video Kelimeleri, Öğrenci-Eğitmen Etkileşimi.

1. INTRODUCTION AND LITERATURE REVIEW

It is a must to use a list of words and phrases commonly used in teaching and learning of a language. The Common European Framework of Reference for Languages (CEFR) has emerged as a result of the work done by the Council of Europe to meet this need (Council of Europe, 2001). CEFR is a framework that is used to categorize six stages of language proficiency as A1, A2, B1, B2, C1, and C2. The conception of developing a CEFR was commenced in 1991 during a major Council of Europe symposium that was organized in Switzerland. In 1992, a working group was created, which collaborated with a Swiss research

group. The purpose of this research group was to create and scale descriptors of language proficiency. Four members of the working group were chosen as the authors of the CEFR. The first version of the document was distributed to 2000 experts to get feedback at the end of 1996, and a revised version was presented at a major conference in Strasbourg in April 1997. After it had been piloted for two years, the official version was launched in January 2001, which coincided with the launch of the European Year of Languages (Council of Europe, 2021). The CEFR is utilized within other continents as well as in Europe. Accessible to 40 languages, it is the second most translated script of Council of Europe — the first mostly translated document is the Convention of Human Rights. (Council of Europe, 2021). The CEFR is a helpful and original tool which helps policymakers in the field of second or foreign language teaching for different purposes. The policymakers make use of its related parts depending on their needs. It is a fact that CEFR has been used in many areas all over the world in the field of language education.

There have been several studies that have employed the CEFR; some of the studies that have been selected from the literature are mentioned in this section. Volodina, Pilán, and Tack have developed a data-driven Automatic Essay Grading (AEG) system based on CEFR instead of manual evaluation of writing papers because it is time-consuming (Volodina et al., 2016). Zhao et al. (2017) made a pilot study with the purpose of establishing CSE (China Standards of English) descriptor scales with reference to the CEFR vocabulary descriptors for College English vocabulary education in China (Zhao et al., 2017). Barbaux stated how the CEFR descriptors can function in designing a curriculum of a school in language teaching. By using the CEFR descriptors in the curriculum, students will be able to understand what is expected from them in the learning process (Barbaux, 2016). Cephe and Toprak (2014) attempted to analyze the useful considerations and likely problems relevant to the CEFR about language testing and to discuss some efficient suggestions for language testers and teachers regarding test preparation and consistency (Cephe & Toprak, 2014). In their article, Jones and Saville described how language policy is designed at the European level, depending on the CEFR (Jones & Saville, 2009). In his article, Piccardo scrutinized some challenges professionals are encountering and their needs to be related to the assessment process (Piccardo, 2012). CEFR can be used for language syllabuses, curriculum guidelines, examinations, textbooks, and assessments. It equips teachers, course designers, educational administrators, examining bodies and teacher trainers with necessary means to meet the needs of the language learners (Council of Europe, 2001).

It is possible to come across many applications and scientific research in which computer and web technologies are used in English learning. Especially the development of mobile technologies has facilitated the development of applications in many different structures. Martinez et al. (2018) developed an application called PLSOOP (Learning Support and Object Platform Oriented Programming). They state that this application produces great results by playing a decisive role in students' learning processes (Martinez et al., 2018). Muhammad et al. (2019) proposed a web-based application using speech recognition technology in their work. With this application, they proposed a structure where students could respond not only as readers but also as speakers in their English learning process (Muhammad et.al., 2019). Samudra and Setiyadi (2019) investigated the effectiveness of web and mobile-based applications on students used in universities. They carried out a descriptive situation determination study using random sampling and survey tools as data collection methods. As a result of their studies, it was revealed that web and mobile-based English learning helped students understand scientific articles (Samudra & Setiyadi, 2019). Yusof and Saadon (2012) investigated the effects of web-based language learning on students' English grammar proficiency. In the study, they conducted a pre-test and a post-test study on the students to compare traditional face-to-face learning methods, web-based learning methods, and integrative (traditional and web-based) learning management. As a result of their tests, they stated that the most effective method in the teaching processes of students is the integrative learning method (Yusof & Saadon, 2012). Zhi-ying and Hong (2010) stated that the web-based platform they developed provides a facilitating function for students' English learning. They stated that the needs of students can be met through participation, communication, application, and evaluation through the platform, and that great convenience will be provided in terms of language competencies and communication skills (Zhi-ying & Hong, 2010). Ping and Qisong (2010) stated in their study that the interaction problems of students in English classes with large participation can be solved with the support of web-based learning with cooperative learning management (Ping & Qisong, 2010). Zhang (2010) stated the advantages and disadvantages of web-based autonomous English language learning methods (Zhang, 2010). Cao et. al. (2012) investigated how successful 125 Chinese students used autonomous web-based systems in their English learning (Cao et. al., 2012). Lin (2017) investigated the effects of the PBL (Problem Based Learning) approach in a web-based English learning course. She wanted to measure the effectiveness of problem-based learning by applying pre-test and post-test to two groups of students she determined. According to her findings, she concluded that PBL is effective in web-based English learning (Lin, 2017) Özyurt and Özyurt (2010) examined

activities for learning English in web-based environments, including asynchronous discussion platforms. As a result of the examination, they concluded that these types of non-structural learning methods have positive results in individuals' learning the English language (Özyurt & Özyurt, 2010). Tashtoush et al. (2017) examined data mining applications in the field of education in their study and stated that a structure that organizes students' English learning processes based on their past learning experiences has produced very successful results (Tashtoush et al., 2017). Rui (2011) mentioned the importance of web-based learning and teaching techniques in her study. She provided various information on how to improve theories of second language learning and how they can be adapted to web applications (Rui, 2011). Wu et. al. (2020) mentioned an English teaching robot that will help especially the elderly to learn English. They also compared teaching grammar-translation or communicative language teaching to verify the effectiveness of the English teaching robot (Wu et. al., 2020). Isamiddinovna (2019) investigated the role of educational mobile apps in learning the English language. The advantages and disadvantages of these mobile applications were mentioned in the study (Isamiddinovna, 2019). Pandusadewa et. al. (2019) mentioned an English education application using WebRTC technology, which is a real-time web conference system. They informed about the benefits of this technology in learning the English language (Pandusadewa et. al., 2019).

In this paper, how the English Vocabulary Profile (2017), which has six different levels determined by the Council of Europe, can be taught, and learned using an application that uses movie and SRT data is demonstrated. The existence of word lists prepared by using motion pictures, TV series or books is known and studies using these data have been included in the literature. The present study aims at enabling the student to learn the word(s) any time he or she wishes with the help of a platform. Thus, the student will be able to learn both the written form and pronunciation of the newly learned word without a teacher. Both the visual and audio elements of the platform have a feature that facilitates learning. This platform is recommended as a solution to the lack of enough time to solve the pronunciation problem in school. The fact that the content of the film is appropriate to the level of CEFR in terms of the vocabulary it contains will allow the student to make progress using the appropriate films. This will also prevent the student from encountering more advanced vocabulary and prevent the student from experiencing time loss and adversely affecting the learning process.

Considering the current state of technology, it is obvious that the means of communication that are within the reach of everyone at any moment can be used not only for

communication purposes but also as individual learning tools. Nowadays, it is known by inquisitive people that mobile phones and tablets can be used as a learning tool with the help of some applications.

Defining the CEFR levels of the films determined in the study by analyzing them, showing the movie scenes at the same CEFR levels to the students according to their CEFR levels, and creating the database tables used in the CEFR analysis of these films reveals the difference between this study and other developed applications.

This study focuses on vocabulary learning, as words are the bricks of a wall called language. The aim of this study is to design and support the students with a platform that will help them to continue their vocabulary learning outside the school without the need for a teacher. Because the time devoted to teaching and learning in a prep school is not enough for the students. That is why such a platform is thought to help the students improve their vocabulary learning.

2. SYSTEM DESIGN AND APPLICATION

The system was developed as an answer to the question "How can students learn words more easily?". It was ensured that the words students looked for were displayed in different movie scenes based on the CEFR levels in the development of the system. During this display, students' CEFR levels and the genres of movies they were interested in were taken into consideration. By doing this, it was mas made possible for the students to study depending on their level of English. In addition, the McMillan digital dictionary can also be used to display words.

In this study, firstly, the data given for each level of CEFR were generated for each group considering both the grammatical structures, the conjugation, and different forms of parts of speech of the word in question. For example, in the CEFR list, BE is given as an entry, but in the database, its present, past, and past participle forms (am, is, are, was, were, and been) were also added. Comparative and superlative degrees of adjectives and adverbs were also added. Phrasal verb WAKE SB UP is given as an entry in the CEFR list. It's all forms related to person and tenses were given too like, wake me up, wake him up, wake her up, wake us up, wake them up, wakes me up, wakes him up, wakes her up, wakes us up, wakes them up, woke me up, woke him up, woke her up, woke us up, woke them up, woken me up, woken him up, woken her up, woken us up, woken them up, waking me up, waking him up, waking her up,

waking us up, waking them up). Another phrase given in the CEFR list is TAKE A PICTURE. Its all forms (takes a picture, took a picture, taken a picture and taking a picture) were also added depending on the person and tenses. Another phrase given in the CEFR list as an entry is BE CALLED. Its all forms (am called, is called, are called, was called, were called, have been called, has been called, had been called, will have been called and will be called) were also added to the database. Another example is the phrase I HAD BETTER. Its all variations like (I'd better, you had better, you'd better, he had better, he'd better, she had better, she'd better, we had better, we'd better, they had better, they'd better) were also included in the database. Another phrase given as an entry in the raw list of CEFR is TIRED OF. All the different forms of this phrase (be tired of, am tired of, is tired of, are tired of, was tired of, were tired of, have been tired of, has been tired of, had been tired of, will have been tired of and will be tired of) were also given in the database. All the conjugations of the verbs depending on the grammar level of the CEFR level were also added to the database. Another example is the word "WATCH". It has been given twice in level A1. So, there are two words as "WATCH" in the raw list of CEFR as a noun and a verb. But the other forms of the verb and noun WATCH (watches, watched and watching) have been added to our list. American spellings of the words were also added to the database. This had to be done because in the movies all the forms of nouns, adjectives, adverbs, or verbs may be seen. This process aims at determining the level of the films accurately. If such a process had not been made, it would have been impossible to detect the CEFR level of the movie in question. Without doing this, determining the accurate level of a movie would not be possible. While the total number of words in the raw data of CEFR for all 6 levels was 12042, the number of words in the processed data has increased to 45844.

In the design of the system, HTML5 and CSS as design tools, PHP and JavaScript as programming languages were used. The system has been developed as a web-based system to facilitate access by all users. A server with a 64-bit Linux operating system was used as the system platform. That is why the database of the system MySQL was preferred. The reason for this is that the MySQL database on servers with a Linux distribution operating system is highly successful with PHP programming language. 18 video content for use in the system was installed in the system and these videos were used. In particular, database operations are extremely important for all searches are performed through the database.

In the development of the system, the life cycle steps such as planning, analysis, design, implementation, and evaluation were used. In the planning stage, it was dwelt on what problem

the system will find solutions to. At this stage, the means by which the system will be installed, the target group that will use the system and the other elements required by this system have been determined. In the analysis stage, the analysis of the software and hardware units that will play a role in the establishment of the system was carried out. Whether this system is considered to be positive in terms of cost and benefit has also been realized at this stage. As a result of this determination, web-based installation of the system, the use of a Linux-based server to enable the successful use of the system platform, the programming languages to be used, the database selection and the computer elements required for writing the system have been identified. At the design stage, graphical and programmatic designs of the system software to be created, database design, design of the system interfaces and design of user authorizations were performed. During the development stage, the installation of the server on which the system will work, and the realization of the graphical, programmatic, interpersonal, and authoritative designs were provided. During the implementation stage, the operation of the system, the introduction of the system and the methods of use of the system were provided. At the evaluation stage, it was tried to gather positive and negative opinions about the system from the users. The general operation of the system is shown in figure 1.
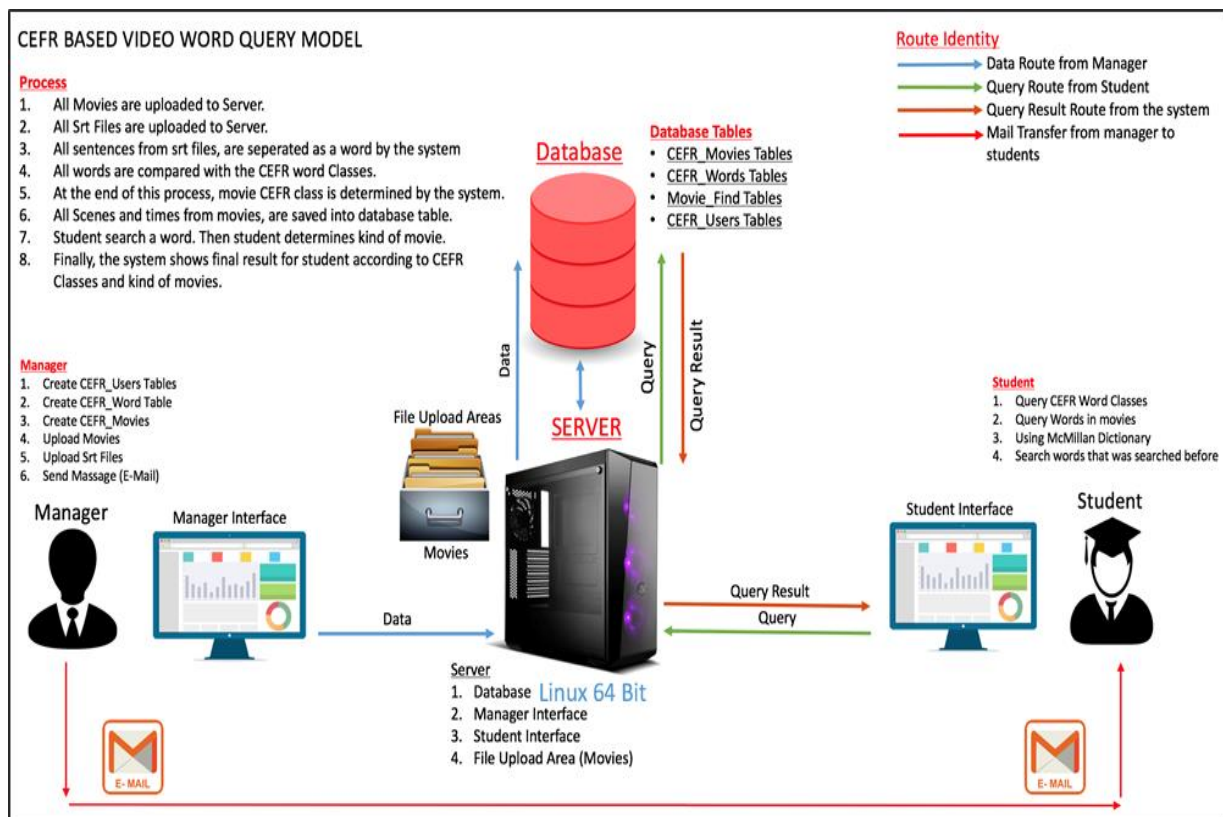

Figure 1. General features of the system

Source: Authors, 2021

The operation of the system is carried out as follows. Firstly, system registrations are performed by managers. The specified movie files are sent over the system to be stored on the server. The plot of the movie, the genre (adventure, horror, comedy, etc.) and the poster of the movie are sent to the CEFR_Movies table in the database. During the installation of the movie, the SRT files (subtitles) belonging to the movie are also uploaded to the system. These SRT files contain information about which sentence, or words are within the time intervals. This information is recorded by the system in the CEFR _Video_ Continuity table in the database. In this way, the sentences in which the searched word has existed, and the time intervals of these sentences can be determined by the system. The domain names of this database table consist of the ID, movie name, start, end, sentence1, sentence 2, class, and genre. Figure 2 shows this table.

id	Movie ID	Start Time	Stop Time	Sentence 1	Sentence2	CEFR CLASS	Movie Kind
181	1	00:19:56	00:19:58	No matter what the circumstances,		A1	adventure
182	1	00:19:58	00:20:00	for 28 years, I only knew one thing--		A1	adventure
183	1	00:20:01	00:20:03	that my parents sent me away.		A1	adventure
184	1	00:20:03	00:20:04	We did that		A1	adventure
185	1	00:20:05	00:20:08	to give you your best chance.		A1	adventure
186	1	00:20:11	00:20:13	leaders, heroes,		A1	adventure
187	1	00:20:13	00:20:14	princes and princesses,		A1	adventure
188	1	00:20:20	00:20:23	that for my entire life		A1	adventure
189	1	00:20:30	00:20:32	you would have been cursed, too.		A1	adventure
190	1	00:20:38	00:20:39	Which curse is worse?		A1	adventure
191	1	00:20:59	00:21:00	We should camp here tonight.		A1	adventure
192	1	00:21:00	00:21:02	The wraith only appears when light is absent.		A1	adventure
193	1	00:21:04	0.014641204	Light is its adversary.		A1	adventure
194	1	00:21:05	0.014675926	And you want to stop now?		A1	adventure
195	1	00:21:10	0.014722222	Our best bet is to be still until night passes.		A1	adventure
196	1	00:21:14	0.014756944	We have to rest here.		A1	adventure
197	1	00:21:30	0.014930556	Here.		A1	adventure
198	1	00:21:31	0.014953704	You should sleep.		A1	adventure
199	1	00:21:36	0.015011574	Just relax.		A1	adventure
200	1	00:21:42	0.015081019	Not after what I just went through.		A1	adventure

Figure 2. CEFR_video_continuity database table

Source: Authors, 2021

After the movies are recorded to the server and the movie information is stored in the database, the CEFR density is determined in terms of the words used in these movies. First, the words or word groups in all CEFR classes in the database are grouped according to the frequency values in the SRT files of the individual videos, and thus it is determined which CEFR class that movie belongs to. However, the ratio of the number of words in these levels to the total number of words is also transferred to the table named CEFR_Movies in the database. According to the highest density, the CEFR level of the movie is determined. ID, Movie_ID, A1 Number, A1 density, A2 Number, A2 Density, B1 Number, B1 Density B2 Number, B2

Density, C1 Number, C1 Density, C2 Number, C2 Density, movie genre and the detected class of words are included in the table. Figure 3 shows this database table.

ID	MOVIE ID	A1 Count	A1 Density	A2 Count	A2 Density	B1 Count	B1 Density	B2 Count	B2 Density	C1 Count	C1 Density	C2 Count	C2 Density	Movie Kind	CEFR Class
94	2	216	0.442441622	234	0.479311757	238	0.487505121	201	0.41171651	67	0.137238837	71	0.1454322	Adventure	B1
95	3	213	0.391472156	247	0.453960669	250	0.459474361	207	0.380444771	88	0.161734975	88	0.161734975	Adventure	B1
96	4	224	0.430852087	248	0.477014811	265	0.509713406	232	0.446239661	74	0.142335064	91	0.17503366	Adventure	B1
97	5	198	0.345188285	233	0.406206416	252	0.439330544	230	0.40097629	72	0.125523013	88	0.153417015	Adventure	B1
98	6	225	0.379490639	258	0.435149266	280	0.472255018	237	0.39973014	75	0.12649688	98	0.165289256	Adventure	B1
99	7	218	0.38577243	243	0.430012387	240	0.424703592	204	0.360998053	62	0.109715095	69	0.122102283	Adventure	A2
100	8	209	0.361591696	244	0.422145329	272	0.470588235	239	0.41349481	86	0.148788927	91	0.157439446	Adventure	B1
101	9	189	0.368205728	227	0.442236509	242	0.471459186	220	0.42859926	74	0.144165206	85	0.165595169	Adventure	B1
102	10	231	0.414201183	263	0.471579702	261	0.467993545	277	0.496682804	81	0.145239376	94	0.168549399	Adventure	B2
103	11	205	0.41230893	232	0.466613033	250	0.5028157 68	208	0.418342719	73	0.146822204	84	0.168946098	Adventure	B1
104	12	235	0.409764603	245	0.427201395	260	0.453356582	212	0.369659983	79	0.137750654	98	0.170880558	Adventure	B1
105	13	230	0.395664889	259	0.445553071	265	0.455874763	234	0.402546018	94	0.16170652	93	0.159986238	Adventure	B1
106	14	227	0.401201838	235	0.41534111	251	0.443619654	222	0.392364793	73	0.129020855	90	0.159066808	Adventure	B1
107	15	229	0.378074955	261	0.430906389	265	0.437510319	245	0.404490672	91	0.150239392	84	0.138682516	Adventure	B1
108	16	186	0.410868125	207	0.457256461	210	0.463883366	195	0.43074884	68	0.150209852	79	0.174508505	Adventure	B1
109	17	211	0.431492843	231	0.472392638	220	0.449897751	185	0.378323108	63	0.128834356	71	0.145194274	Adventure	A2
110	18	213	0.392916436	249	0.459324848	247	0.455635492	214	0.394761114	72	0.132816823	88	0.162331673	Adventure	A2

Figure 3. CEFR_movie database table

Source: Authors, 2021

There are 2 interfaces in the system offered to users. The first one is the administrator interface and the other is the student interface. The desired movies and subtitles can be uploaded into the system from the administrator interface. In addition, different categories of queries can be made within the student interface. The words that belong to the CEFR levels can also be viewed within this interface and the McMillan dictionary program can also be used to learn the meaning of the desired words. Students and managers must be registered in the system. Otherwise, the user cannot access the system. After registering the students in the system by the administrator, the number of entries made by each student and the word each student looked up in the system can be stored in the database. The student can access this information again through the student interface. Users can be saved through the system administrator interface, movies and subtitles can be uploaded to the system, messages can be sent to the students via the system, all database operations can be performed, all word searches can be carried out according to all CEFR levels and all the activities of the students can be viewed on the system. System administrators can send e-mails about the word or words to be learned by the students registered in the system. There is an interface on the system for this. The message wanted to be sent is sent to the person, group, or all users via this interface. The system sends these emails via Google SMTP (Simple Mail Transfer Protocol). Students are constantly reminded of some English words in this way.

The system can do the search according to the desired CEFR level and movie genre via the student interface. Students can register themselves in the system, or they can be registered by the administrators. Students must take an exam where they can determine their CEFR levels before registration. The CEFR levels of students are determined by this exam, and they can register to this system with this level. The student can search any word when he or she logs on the system. While doing this search, they can select the genres of movies they want in addition to the CEFR level and change the results in the way they want. Figure 4 shows the student interface of the system.
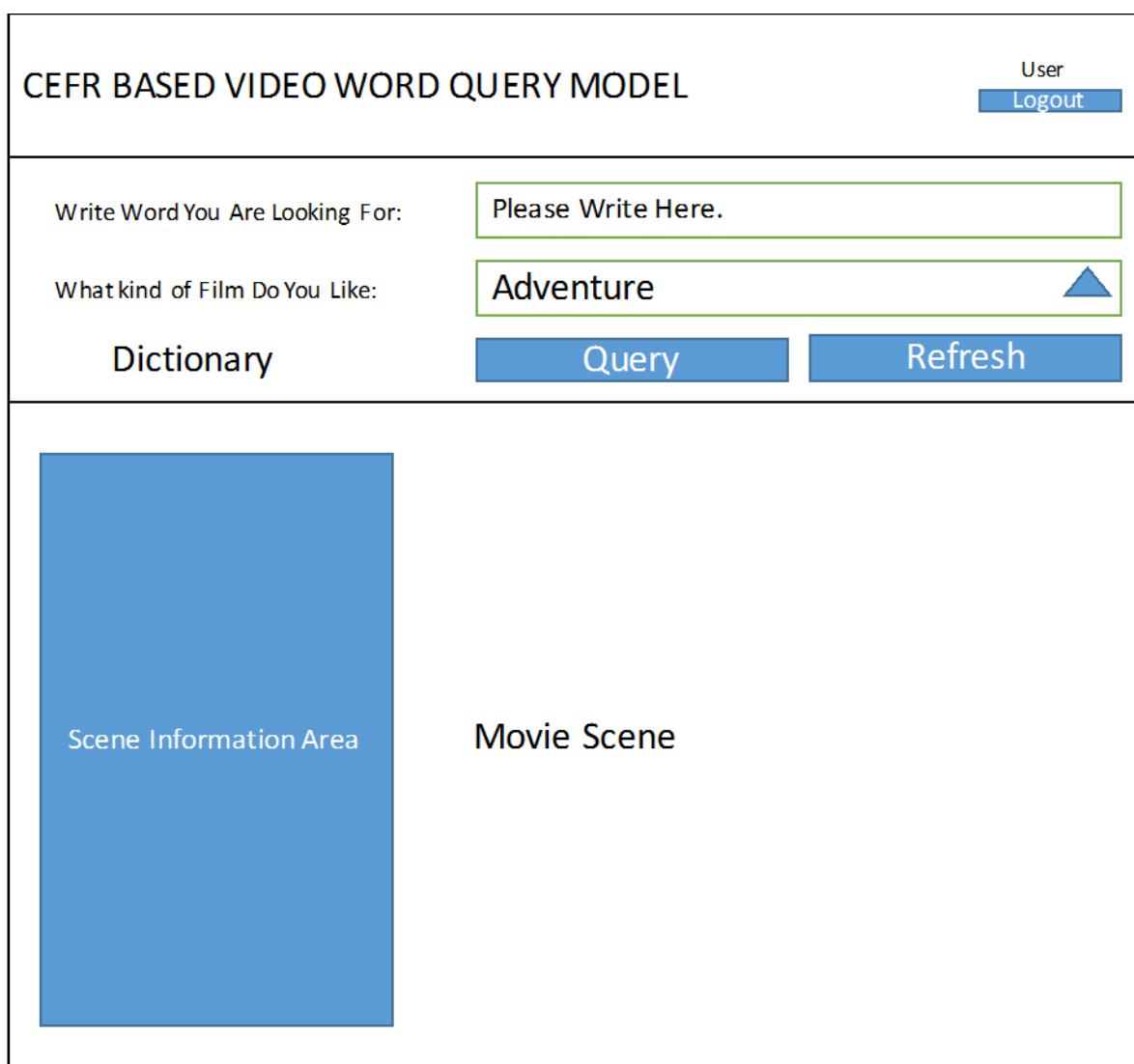

Figure 4. System student interface

Source: Authors, 2021

When a student searches for a word, the word is sent to the database by the system. The search is carried out in the CEFR level to which the student belongs and in the genres of movies

preferred by the student. The system determines both the sentences in which the searched word exists and the time period in which this sentence exists. And then, the fragment that consists of the 10 seconds before and 10 seconds after the searched word is shown on the screen. In addition, the searched word, the name of the movie and the movie in which this word exists, the start and end time of the sentence and the sentence in which the word exists are also shown on the screen. Through this interface, the student can view the words in all CEFR levels and view their meanings through the Macmillan digital dictionary. The developed system can easily be used both in computer and mobile devices. A separate interface is designed for each of these platforms.

3. CONCLUSION

The study was carried out in order to support the learning process and make learning English more fun for students by allowing students to view scenes from movies containing words suitable for CEFR levels in the movie genres they like. Especially the database created by adding many different versions of the words in the six classes within the scope of CEFR is an important feature of the study. The data given for each CEFR level has been created taking into account the grammatical structures, conjugation and different speech patterns of words in all CEFR levels. The aim of this process is to determine the level of the films correctly. While the total number of words in the raw data of CEFR for all six levels was 12042, the number of words in the processed data has been 45844. This data was then transferred to the database. The CEFR levels of the films added to the system are determined by considering the data in this database table. Obtaining the speeches in the movies from the srt files, adding them to the database and then making a comparison can be specified as the method used to determine the CEFR level of the relevant movie. System life cycle steps have been applied in system design and web-based development has been achieved.

In the future, to increase the support to the teaching and learning process, different features can be integrated into the platform. Conducting surveys on the evaluation of the method used will also bring positive results. The fact that there are some parts where interactive questions on the platform can be prepared by instructors and answered by learners will have a positive impact on learning too. For future studies, use of artificial neural network algorithms, which is one of the methods of artificial intelligence, can bring successful results. In addition, it is thought that virtual reality technology can create effectiveness in the foreign language

learning process. Virtual reality can be used as a media and technology tool in teaching processes as a motivational element for students to experience foreign language terms.

RESEARCHERS' CONTRIBUTION RATE STATEMENT

The authors contribution rates in the study are equal.

CONFLICT STATEMENT

There is no conflict of interest with any institution or person within the scope of the study.

REFERENCES / KAYNAKLAR

Barbaux, M. T. (2016). The common European framework of reference and the co-constructed language curriculum. *Australia and New Zealand Journal of Europian Studies*, *8*(1), 70-84. doi: 10.30722/anzjes.vol8.iss1.15160.

Cao, Y., Zhao, S., & Ma, X. (2012). A study on web-based English autonomous learning of non-English major students. *2012 2nd International Conference on Consumer Electronics, Communications and Networks (CECNet)*. doi: 10.1109/cecnet.2012.6201627.

Cephe, P., T., & Toprak, T., E. (2014). The common European framework of reference for languages: Insights for language testing. *Journal of Language and Linguistic Studies*, *10*(1), 79-88.

Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment. modern languages division*. Cambridge: Cambridge University Press.

Council of Europe. (2021). *Historical overview of the development of the CEFR*. Retrieved from: 05.01.2021, http://www.coe.int/en/web/common-european-framework-reference-languages/history.

Isamiddinovna, S. F. (2019). Mobile applications as a modern means of learning English. *2019 International Conference on Information Science and Communications Technologies (ICISCT)*. doi: 10.1109/ICISCT47635.2019.9011897.

Jones, N., & Saville, N. (2009). European language policy: Assessment, learning, and CEFR. *Annual Review of Applied Linguistics*, *29*, 51-63. doi: 10.1017/S0267190509090059.

Lin, L. (2017). Integrating the problem-based learning approach into a web-based English reading course. *Journal of Educational Computing Research*, *56*(1), 105-133. doi: 10.1177/0735633117705960.

Martínez, L. G., Marrufo, S., Licea, G., Reyes-Juárez, J., & Aguilar, L. (2018). Using a mobile platform for teaching and learning object oriented programming. *IEEE Latin America Transactions*, *16*(6), 1825-1830. doi: 10.1109/TLA.2018.8444405.

Muhammad, A. F., Pratama, D. E., & Alimudin, A. (2019). Development of web based application with speech recognition as English learning conversation training media. *2019 International Electronics Symposium (IES)* (pp. 571-576), Surabaya, Indonesia. doi: 10.1109/ELECSYM.2019.8901594.

Özyurt, Ö., & Özyurt, H. (2010). Asenkron tartışma forumlarını içeren web tabanlı ortamlardaki İngilizce öğrenme aktivitelerinin incelenmesi. *Education Sciences*, *5*(2), 538-548.

Pandusadewa, A.R., Alimudin, A., & Faizal M., A. (2019). Development of conversation application as English learning using WebRTC. *Proceedings of the 2019 International Electronics Symposium (IES)* (pp. 589-594)*,* Surabaya, Indonesia. doi:10.1109/ELECSYM.2019.8901654.

Piccardo, E. (2012). Multidimensionality of assessment in the common European framework of reference for languages (CEFR). *OLBI Working Papers, 4*, 37-54. doi: 10.18192/olbiwp.v4i0.1106.

Ping, Y., & Qisong, C. (2010). Study on web-based cooperative learning in college english teaching. *2010 5th International Conference on Computer Science & Education* (pp. 663-666), Hefei. doi: 10.1109/ICCSE.2010.5593524.

Rui, C. (2011). A brief study on second language acquisition and Web-based English teaching. *2011 International Conference on E-Business and E-Government (ICEE)* (pp. 1-3), Shanghai, China. doi: 10.1109/ICEBEG.2011.5887011.

Samudra, H., & Setiyadi, A. (2019). Building English learning application in university based on web and mobile. *IOP Conference Series: Materials Science and Engineering*, *662*(2). doi: 10.1088/1757-899X/662/2/022009.

Tashtoush, Y., Alsoud, M., Fraihat, M., Sarayrah, W., & Alsmirat, M. (2017). Adaptive e-learning web-based English tutor using data mining techniques and Jackson's learning styles. *2017 8th International Conference on Information and Communication Systems (ICICS)* (pp. 86-91). doi:10.1109/IACS.2017.7921951.

Volodina, E., Pilan, I., & Alfter, D. (2016). Classification of Swedish learner essays by CEFR levels. *CALL communities and culture – short papers from EUROCALL 2016*. doi: 10.14705/rpnet.2016.eurocall2016.606.

Wu, W. V., Wang, R., & Jou, Y. E. (2020). Application of educational robots in the elderly English vocabulary learning. *2020 IEEE 20th International Conference on Advanced Learning Technologies (ICALT)* (pp. 216-217), Tartu, Estonia. doi: 10.1109/ICALT49669.2020.00070.

Yusof, N. A., & Saadon, N. (2012). The effects of web-based language learning on university students' grammar proficiency. *Procedia - Social and Behavioral Sciences*, *67*, 402-408. doi:10.1016/j.sbspro.2012.11.344.

Zhang, J. (2010). On the issues of web-based college English autonomous learning in China. *Proceedings. 2010 International Conference on Artificial Intelligence and Education* (pp. 749-752). doi:10.1109/ICAIE.2010.5641487.

Zhao, W., Wang, B., Coniam, D., & Xie, B. (2017). Calibrating the CEFR against the China standarts of English for collaage English vocabulary education in China. *Lang Test Asia, 7*(5). doi: 10.1186/s40468-017-0036-1.

Zhi-ying, G., & Hong, L. (2010). Effective English teaching and learning via web-based electronic English Lesson plan design. *2010 Second International Workshop on Education Technology and Computer Science* (pp. 358-361). *Wuhan*. doi: 10.1109/ETCS.2010.530.