Ensuring Equality of Opportunity in Foreign Language Education: Development of Artificial Intelligence Based IOS and Android Applications[*]

Yabancı Dil Eğitiminde Fırsat Eşitliğini Sağlamak: Yapay Zekâ Tabanlı IOS ve Android Uygulamalarının Geliştirilmesi[*]

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Abstract

An effective and efficient Foreign Language Teaching is a strategic goal announced by the Ministry of National Education within the scope of 2023 Education Vision Goals in our country. Despite this, according to the statistics published by Education First in 2020, Turkey could only find its place in the 70th place among the world countries in the Foreign Language Proficiency index, and it was the second from the last among European countries with an average score of 478. In our country, raising a large number of individuals who are fluent in a foreign language, especially English language skills, can be achieved by developing Android and IOS applications that can be easily accessed by everyone, free of charge, but which can provide the person with the language skills they need in the right way. Existing applications in the market are insufficient in this regard. Because these applications are generally far from providing an acquisition beyond the sentence level. Existing practices are based on the assumption that reading, listening, speaking and writing skills can be taught equally, and competence can be gained by getting enough practice in each. A new application to be developed should be based on the principle that acquiring proficiency in a foreign language can only be achieved by starting to understand the messages in that language, in accordance with the Comprehension-Based language acquisition approach. This application will be an interactive application that allows the student to react to the English messages that he will hear, watch and read, and that these responses are analyzed with the help of artificial intelligence built into the application, and that provides feedback appropriate to his individual development. In short, the purpose of the application is to activate the Language Acquisition Device that we have from birth, and to enable the acquisition of language skills rather than to teach the language. The fact that such an application, which will be developed by the Ministry of National Education, is accessible and usable by everyone with a smart phone, tablet or computer, will help to

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[*] Bu çalışma, Başakşehir İlçe Millî Eğitim Müdürlüğü tarafından 16-17 Haziran 2022 tarihinde düzenlenen *Eğitimde Fırsat Eşitliği* konulu **I. Eğitim ve Bilimsel Araştırmalar Sempozyumu**'nda (EBAS) sunulan bildirinin genişletilmiş metnidir. This study is the extended text of the paper presented at the **I. Education and Scientific Research Symposium** (ESRS) on *Equality of Opportunity in Education* organised by Başakşehir District Directorate of National Education on 16-17 June 2022.

overcome the factors that hinder equality of opportunity such as time, cost, inability to reach competent teachers, and geographical distance in foreign language education.

Key Words: English Language Teaching, Comprehension Based Approach, Android – IOS Applications

Öz

Etkin ve verimli bir Yabancı Dil Öğretimi ülkemizde Millî Eğitim Bakanlığı tarafından 2023 Eğitim Vizyonu Hedefleri kapsamında ilan edilen stratejik bir hedeftir. Buna rağmen, Education First adlı kuruluşun 2020 yılında yayımlanan istatistiklerine göre Türkiye Yabancı Dil Yeterlik endeksinde dünya ülkeleri arasında ancak 70'inci sırada kendisine yer bulabilmiş, 478 ortalama puan ile de Avrupa ülkeleri arasında sondan 2'nci olabilmiştir. Ülkemizde yabancı dil, özellikle de İngilizce lisan becerilerine hâkim çok sayıda bireyin yetiştirilebilmesi herkes tarafından kolayca ulaşılabilecek, ücretsiz ama kişiye ihtiyaç duyacağı dil becerilerini doğru bir yöntemle kazandırabilecek Android ve IOS uygulamalarının geliştirilmesi yoluyla sağlanabilir. Piyasadaki mevcut uygulamalar bu konuda yetersiz kalmaktadır. Çünkü bu uygulamalar genellikle cümle seviyesinden öteye bir edinim sağlamaktan uzaktır. Mevcut uygulamalar okuma, dinleme, konuşma ve yazma becerilerinin eşit oranda öğretilerek, her birinde yeterince alıştırma yaptırarak yetkinlik kazanılabileceği varsayımına dayalıdır. Geliştirilecek yeni bir uygulama Anlama Odaklı dil edinimi yaklaşımına uygun olarak bir yabancı dilde yetkinlik elde etmenin ancak o dildeki mesajları anlamaya başlamak yoluyla gerçekleşebileceği esasına dayanmalıdır. Bu uygulama öğrencinin duyacağı, izleyeceği ve okuyacağı İngilizce mesajlara tepki vermesini sağlayan, vermiş olduğu bu tepkilerin de uygulamada yerleşik yapay zekâ yardımıyla irdelenip, kendisine bireysel gelişimine uygun geribildirim sunan, etkileşimli bir uygulama olacaktır. Yani kısaca uygulamanın amacı doğal ortamda kendi anadilimizi edinmemizi mümkün kılan, doğuştan sahip olduğumuz Dil Edinim Cihazını (Language Acquisition Device) aktive etmek, dili öğretmekten ziyade dil becerilerini kazandırmaktır. Millî Eğitim Bakanlığı tarafından geliştirilecek böyle bir uygulamanın akıllı telefon, tablet veya bilgisayar sahibi herkes tarafından ulaşılabilir ve kullanılabilir olması, yabancı dil eğitiminde zaman, maliyet, yetkin öğretmenlere ulaşamama, coğrafi uzaklık gibi fırsat eşitliğini engelleyen unsurları aşmaya yardımcı olacaktır.

Anahtar Kelimeler: İngilizce Öğretimi, Anlama Odaklı Yaklaşım, Android- IOS Uygulamaları
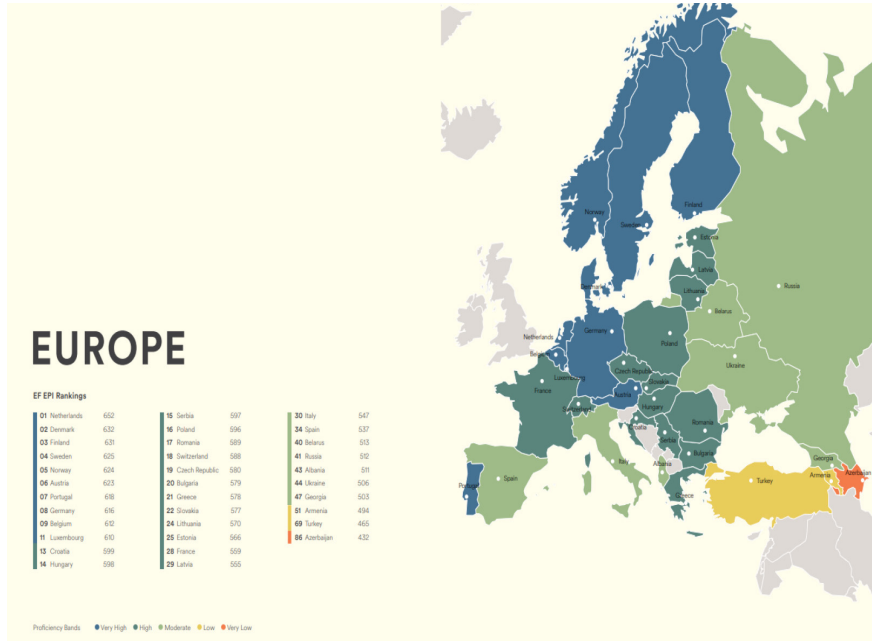
0. Introduction

In this article, the principles of effective delivery of Foreign Language Teaching with the help of free IOS and Android applications within the context of equality of opportunity in our country will be discussed. In the article, first of all, the issue of whether the present foreign language education model called the Communicative Method will primarily be examined in terms of its effectivity and efficiency. Regarding this, the theoretical and practical deficiencies of the current model and how an alternative model could be presented will be revealed. Finally, we will discuss how a mobile phone application that could be developed in accordance with the principles of Comprehension Based language teaching would be a solution to provide equal opportunity in foreign language education.

1. The Current Foreign Language Teaching Model

In Turkey, foreign language education in general and English education in particular is not at the desired level in terms of results. This situation stands out as a problem in front of us, both with the experiences of people in their own lives and with statistical data. Based on the worldwide EF language proficiency exam results of the 2.2 million students, the average of the Turkish students is 69th among 100 countries (https://www.ef.com/wwen/epi/). With this result, our country has been placed in the 2nd place from the last, just ahead of Azerbaijan among the European countries. When we look at the previous years, we see that our poor performance was not better either. In this index, our country ranked 62nd in 2017, 73rd in 2018 and 79th in 2019. Table 1 showing the position of our country as of 2020 in the European region language proficiency index is presented below.

Table 1. EF European Region English Proficiency Index Ranking for 2020
(retrieved from https://www.ef.com/wwen/epi/).

EUROPE

EF EPI Rankings

#	Country	Score	#	Country	Score	#	Country	Score
01	Netherlands	652	15	Serbia	597	30	Italy	547
02	Denmark	632	16	Poland	596	34	Spain	537
03	Finland	631	17	Romania	589	40	Belarus	513
04	Sweden	625	18	Switzerland	588	41	Russia	512
05	Norway	624	19	Czech Republic	580	43	Albania	511
06	Austria	623	20	Bulgaria	579	44	Ukraine	506
07	Portugal	618	21	Greece	578	47	Georgia	503
08	Germany	616	22	Slovakia	577	51	Armenia	494
09	Belgium	612	24	Lithuania	570	69	Turkey	465
11	Luxembourg	610	25	Estonia	566	86	Azerbaijan	432
13	Croatia	599	28	France	559			
14	Hungary	598	29	Latvia	555			

Proficiency Bands ● Very High ● High ● Moderate ● Low ● Very Low

In Another data showing the status of English education in our country is TOEFL exam results (https://www.ets.org/s/toefl/pdf/94227_unlweb.pdf). According to the grade averages of the students who took the TOEFL exam, which includes questions on reading, listening, writing and speaking skills, the average of the Turkish students taking the exam in 2019 is 80 out of 120, and it is in the last place among European countries. In this ranking, the average of the Austrian students in the first place is 100, the average of the Dutch students in the second place is 99, and the average of the German students in the third place is 98. When we look at the countries such as Jordan, Sudan and Ghana with the same average score as us, we see that these countries are not in the same category as us in terms of economic size, welfare level, average life expectancy. In Table 2 below, countries from Europe, the Middle East and the Pacific region and their exam results are shown in detail.

Table 2. TOEFL Score Ranking of Various Countries in 2019 (Retrieved from https://www.ets.org/s/toefl/pdf/94227_unlweb.pdf).

Geographic Region and Native Country	Reading	Listening	Speaking	Writing	Total
Georgia	21	23	22	21	86
Germany	24	26	25	24	98
Greece	23	25	23	23	94
Greenland	*	*	*	*	*
Holy See (Vatican City State)	*	*	*	*	*
Hungary	23	24	23	22	92
Iceland	23	25	24	23	95
Ireland	23	23	24	23	93
Italy	23	23	22	22	90
Jersey	*	*	*	*	*
Kosovo, Republic of	19	21	23	21	84
Latvia	21	24	24	22	91
Liechtenstein	*	*	*	*	*
Lithuania	21	23	23	22	89
Luxembourg	24	25	24	24	97
Macedonia, Former Yugoslav Republic of	20	22	23	22	87
Malta	*	*	*	*	*
Moldova, Republic of	21	22	22	21	87
Monaco	21	22	23	21	87
Montenegro	18	21	22	20	81
Netherlands	24	26	25	24	99
Northern Ireland	*	*	*	*	*
Norway	21	24	24	22	92
Poland	22	24	23	22	91
Portugal	22	24	23	22	91
Romania	23	24	23	23	92
Russian Federation	21	23	22	21	88
San Marino	*	*	*	*	*
Scotland	*	*	*	*	*
Serbia	21	23	23	22	89
Slovakia	22	24	23	22	91
Slovenia	24	25	24	23	97
Spain	23	23	22	22	90
Sweden	21	25	25	22	93
Switzerland	25	26	25	24	99
Turkey	20	21	20	20	80
Ukraine	20	22	22	21	86
United Kingdom	23	24	24	23	94

Geographic Region and Native Country	Reading	Listening	Speaking	Writing	Total
MidEast					
Algeria	18	20	21	19	77
Bahrain	21	24	24	22	91
Egypt	20	22	22	21	86
Iran, Islamic Republic of	22	22	21	21	86
Iraq	17	20	21	19	77
Israel	22	24	23	21	90
Jordan	18	21	21	19	80
Kuwait	18	21	22	20	80
Lebanon	21	23	23	22	89
Libyan Arab Jamahiriya	18	20	22	19	79
Morocco	18	21	21	20	80
Oman	18	21	22	20	80
Palestine Territories	17	20	21	19	77
Qatar	19	21	22	20	82
Saudi Arabia	16	20	21	18	74
Sudan	19	21	22	19	80
Syrian Arab Republic	19	21	22	20	81
United Arab Emirates	19	21	23	21	84
West Bank	*	*	*	*	*
Yemen	16	19	21	18	74
Pacific					
American Samoa	*	*	*	*	*
Australia	23	25	24	23	95
British Indian Ocean Territory	*	*	*	*	*
Fiji	*	*	*	*	*
French Polynesia	20	22	21	21	84
Guam	*	*	*	*	*
Kiribati	*	*	*	*	*
Marshall Islands	*	*	*	*	*
Micronesia, Federated States of	*	*	*	*	*
Nauru	*	*	*	*	*
New Caledonia	*	*	*	*	*
New Zealand	24	25	23	23	94
Norfolk Island	*	*	*	*	*
Northern Mariana Islands	*	*	*	*	*
Palau	*	*	*	*	*

Quite a few studies reveal that there is a positive correlation between a country's level of English proficiency and various human and economic indicators of that country (Wang, et al, 2017). In other words, the better a country teaches English to its students, the higher the place of that country in various development indexes. For example, in the EF English Proficiency index mentioned above, the annual gross national product of the countries with an English average in the "very high" and "high" categories is $43,372 and $15,528, respectively, while the GNP figures at "low" and "very low" proficiency levels, including our country, are respectively $8,592 and $5,608.

Again, in an article published in The Wall Street Journal dated November 5, 2019 [1], Japan, which was included in the "low" language proficiency category for 4 consecutive years in the EF index lags behind even countries such as Albania and Vietnam due to the English teaching programs implemented. These structural syllabus language teaching programs are quite similar to the ones in Turkey. The article stated that Japan may experience difficulties in terms of the quality of trained people in the economic competition with China, which has reached the level of medium competence in this index for the first time.

In an article dated November 5, 2019, published on the website Quartz with the headline "Europe's Major Economies Falling Back in English"[2], referring to EF's language proficiency index in 2019, out of the 4 major economies in the Euro zone it was only Germany scoring high in the index. It was emphasized that the other 3 major economies; France, Spain and Italy are in the relatively lower category, and it was stated that this situation may pose a disadvantage for those countries.

Today, the dominant character of the English language in business, education and academia is evident in an unprecedented way in history. For example, as of March 03, 2021, 60.6% of the content of online web pages broadcasting on the internet all over the world is in English. The second most common content language Russian, which can be the closest competitor to English, is only 8.3%[3]. 44.29% of all information produced worldwide is in English. Approximately 22% of the books, 45% of the scientific journals and 63% of the magazines and newspapers published worldwide are in English. 35% of the films and videos shot all around the world are also produced in English (Lobachev, 2008). In this case, it can be said that the higher the population of a country that can understand what it reads, watches and hears, and speaks and writes fluently in English, the higher the chance of competition in innovation, industry, commercial, scientific and technological production of that country.

However, as we have explained above in the light of the data, our country is far from the desired level in teaching English. Now we will explain the factors causing this inefficiency and discuss the likely solutions to overcome the current situation.

2. Lacks and Inaccuracies of Communicative English Teaching

In our country both in state and private education institutions, English and other foreign languages are taught through a 4 skills-oriented language teaching method called Communicative Language Teaching (Ellidokuzoğlu, 2017). There are assumptions this method accepts as facts. Based on these assumptions, a subject matter should be taught from simple to complex, from concrete to abstract, and a certain amount of practice should be done about the taught subject. The mistakes in these practice exercises should be corrected with the help of a teacher, and the dose of the exercises should gradually be adjusted at varying rates until the student does not make mistakes.

Another basic assumption accepted by the communicative language method is the assumption

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[1]   https://www.wsj.com/articles/improving-japans-english-gets-lost-in-translation-11572954240

[2]   https://qz.com/1736699/france-spain-and-italys-english-skills-are-on-the-decline/

[3]   https://en.wikipedia.org/wiki/Languages_used_on_the_Internet

that the more the student who studies the target language takes part in scenarios similar to the daily life in the classroom, the more (s)he can develop proficiency in that language. In other words, the surest way to learn something is to do it ourselves. So, in order to be fluent in a foreign language, it is necessary to practice speaking in that language as much as possible. For this reason, students should be forced to speak and write from the first lesson.

These assumptions, which at first glance seem very logical and very true, unfortunately do more harm than good in language acquisition. In other words, while trying to learn a language, trying to learn that language as if we were trying to learn history, geography, mathematics or any other subject only teaches us some information about that language. We can learn the grammatical rules of that language in this way, we can memorize the meaning of many words in that language, maybe we can voice some dialogues or similar ones that we have memorized, but that's it. In this way, we cannot reach a higher level of reading and listening comprehension, speak on various subjects, and be able to communicate in writing.

Language Acquisition Device (LAD), first introduced by the famous linguist Noam Chomsky in 1957, is an innate, instinctive system that explains how infants and children can acquire their native language quickly, accurately and easily. Indeed, when we ask a 3-year-old boy a very simple math problem, for example, if we ask him, "Tell me Ediz if $2+x = 5$, what is the value of x?" If Eddy easily answered that, "This is very simple, x=3", we would probably all agree that Eddy is a great genius, a unique child in the world. Well, if the same 3-year-old Eddy said, "Mom, I love you so much, daddy I love you, too", none of us would think that Eddy has a great intelligence, foresight, and abstract thinking skills. Because every day, hundreds of millions of children around the world make sentences in thousands of different languages, whether it is Chinese, English or Spanish, without saying that this language is very difficult or that language is easier than the other.

Now, which of the above examples require more advanced abstract thinking skills? The solution to the equation with one unknown or being able to utter the sentence "Mom, I love you so much, Daddy I love you, too". The rules that Eddy should know and apply correctly in order to say our example sentence can be listed as follows:

1. Knowledge about the meanings of words (semantics),
2. Knowledge of how words are constructed with stems, prefixes and suffixes (morphology),
3. Knowledge of sentence building principles (syntax),
4. Correct pronunciation (phonology)
5. Knowledge of using the sentence correctly and in the relevant context (pragmatics) …
6. The ability to use the communicative acts appropriately and the naturalness of speech within a given socio-cultural context (sociolinguistic competence) …

The list can go on. Since we cannot claim that Eddy was previously educated by his parents or a teacher in the subjects we have listed, we can most logically find this tremendous skill in using language in Chomsky's explanation of an innate talent.

Chomsky's theory that the brain can have a modular structure was also discussed in Jerry Fodor's groundbreaking book "The Modularity of Mind", published in 1983, nearly a quarter of a century later. Accordingly, independent and unaffected modules are responsible for the occurrence of various activities in the human mind such as face recognition, language, music recognition, and voice discrimination (Bijani, 2012). The human language faculty is organized in a strikingly different way from other cognitive actions such as music, space, face recognition, and is not found in other living things, but is unique to humans (Lobachev, 2008).

Therefore, it is necessary to consider the language acquisition system humans use independent from the general learning mechanism that they use while learning Mathematics, Physics, or

Chemistry. Current foreign language teaching methods applied in countries such as Japan and Turkey are focused on the operation of this general learning mechanism. This "general learning mechanism", which is very inadequate in analyzing the complex structure of the language, is one of the main reasons for our failure in foreign language education. The key to success is hidden in activating the Language Acquisition Device that Chomsky put forward, which allows children to easily progress in their mother tongue acquisition. The only way to activate this mechanism is to understand the messages in the target language, that is, to be exposed to optimal input. The optimal input should be comprehensible, compelling, rich and abundant (Smith, Mason, & Krashen, 2021). In other words, in order to acquire the target language, it is essential to read, listen and watch a great deal of comprehensible and interesting materials in the target language.

The information included in a paper presented in 2017 on methodological errors in the field of foreign language teaching is quite enlightening in this regard. Ellidokuzoğlu (2017: 2) touches on the following issues:

> The most fundamental deficiency in foreign language teaching in our country is methodological errors (Işık, 2008). The main methods applied in foreign language education in Turkey from the Ottoman period to the present are Grammar-Translation Method, Audiolingual method and Communicative Approach, respectively (Sarıçoban, 2012). When the applications of these three main methods are examined, it is seen that their common points are (a) they follow a syllabus organized around grammar rules, (b) they are insufficient in providing sufficient input to the student (Krashen, 1982; Ellidokuzoğlu, 2017). Especially since the 1990s, the Communicative Approach (Sarıçoban, 2012), which the Ministry of National Education has dictated to be implemented in schools, forces students to speak and write from the first day without giving them the opportunity to receive sufficient linguistic input. When the course materials prepared according to this method are examined, it is seen that the activities for the development of listening skills are quite inadequate, and the total amount of audio input (auditory input) in the textbooks prepared for a curriculum with grammatical structures scattered over the years does not exceed a few hours. This scarcity of input is at the root of the problems we have experienced in our foreign language education programs from past to present, because the most important factor affecting foreign language education, especially at the beginner level, is comprehensible input. Success in a foreign language program is directly related to the quality and quantity of intelligible input received in the target language. In foreign language education, the necessary efficiency cannot be obtained because the issue of providing rich understandable input is ignored and studies on teaching the elements of the language come to the fore (Işık, 2008).

Research conducted in the field for about 50 years has shown that the methods based on understanding and input providing are superior to others (Asher, 1965; Burger, 1989; Dupuy, 2000; Krashen, 2003; Dziedzic, 2012). In an effective foreign language program, the issues to be considered are as follows (Ellidokuzoğlu, 2017):

● Not forcing beginner level students to produce speech and writing in the target language,

● Giving students abundant input,

● Ensuring that the messages/input given be as comprehensible, compelling, rich and ample as possible,

● Students continuously should be checked whether they understand the English content they hear, watch and read (the student should not be expected to speak using long sentences, physical reactions and short answers.)

3. The Basics of Comprehension-Based English Teaching and Practice Samples

In the Foreign Language Education Forum, the Minister of National Education of the time, Ziya Selçuk, stated that, *"We see this (language teaching) as a matter of the development of the economy. We see it an issue about Turkey being as a world state. Therefore, this is not only an operational issue for us, but also a strategic one"[4]*. As we have put forward with the data and research findings carried out in the field, it is not possible to reach the strategic goal of our country in the field of foreign language education with the current communicative language teaching approach. There should be a paradigm shift in language teaching programs.

So far, the steps taken to solve the foreign language issue in our country have not given the desired result. For example, based on the assumption that younger children can learn a foreign language more easily, foreign language courses have been reduced to the 2nd grade level of primary school. In fact, these measures are based on our preliminary assumptions rather than the results of scientific research. For example, in an article published in the prestigious TESOL Quarterly journal, the authors have compiled research data on language acquisition and age relationship as of that date and reveals that the most ideal age for foreign language education at schools is of the age of 11-12 years of age. (Marinova Todd et al., 2000). Although a foreign language education taken at an earlier age has no obvious superiority compared to other ages other than pronunciation skills, the time allocated to these courses in the curriculum during the early school years leads to less instruction time for children's basic mathematics, science, Turkish, physical education and art.

Another step taken to solve the foreign language issue is to increase the hours of foreign language courses against the other courses. On the other hand, between 2014 and 2016, it has been shown that an average of 8-10 hours of English program per week implemented in military schools in our country is 4 times more effective than the traditional communicative method in the English language curriculum.

In order to measure the effectiveness of the program, the computerized version of Oxford Placement test was applied to approximately 8000 students in September 2014 and May 2015 at the 2014-2015 academic year. The pre-test average score of the 9th grade students from Kuleli, Maltepe, Air Force and Naval High Schools was 9.94. After taking 10 hours per week English instruction (approximately 350 hours in total) these students took the same exam as a posttest with an average score of 24.31. Assuming that all of these students came from the public schools (there were also private school graduates among them as well), based on Ministry of National Education curriculum, these students must have been exposed to an approximate 900 hours of English language training in their previous schools starting from their 4th grade. Accordingly, the success of these students in English until September 2014 is 9.94/900 = 0.011 per hour. Considering the 14.37 increase as a result of 350 course hours, we observe an increase of (14.37/350 = 0.041) 0.041 per course. It can be said that the approximately 4-fold difference between 0.011 and 0.041 in efficiency reveals the distinction between comprehension -based and traditional English education.

Table 3 below shows the OPT exam results of the students studying in the preparatory class of a state university in Izmir.

Table 3. OPT Exam Results of University Prep Students

Exam Date	N	Mean	Std. Deviation
September 2013	479	22.98	14.88
September 2014	452	25.21	16.34
Total N: 931		Average M: 24.09	

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[4]   https://www.meb.gov.tr/yabanci-dil-egitimi-bizim-icin-stratejik-bir-meseledir/haber/18557/tr

Before taking the OPT exam, these students received approximately 1300 hours 4 skills-oriented English education. Accordingly, the gains of the students who took the exam at the end of the preparatory class were 25.21-22.98= 2.23 points. The increase per lesson hour is 2.23/1300 = 0.0017. We can say that these results are quite inefficient, compared to the 0.041 gain per class hour achieved by the military school students during their Comprehension-Based foreign language education.

In the light of these data, it is revealed that the urgent transition to a Comprehension - Based foreign language program is an indispensable issue in terms of realizing the strategic goals of our country.

4. IOS and Android Applications as a Solution Proposal

Today, mobile phone applications are used by billions of people all over the world for various purposes. For those who want to learn a foreign language, there is a wide variety of mobile phone applications already on the market such as Duolingo, Babbel, Mango, Busuu etc. However, current applications generally cannot take the student beyond the level of words and sentences. These applications mostly contain activities based on conscious learning (Krashen, 2014). Yet, with conscious learning in this way, you can only learn language-related information. This type of learning is far from permanent. Permanent skill development, which is the main goal, can only be achieved through subconscious and acquisition activities.

A mobile phone application that can be developed within the scope of the principles of Comprehension-Based Foreign Language Teaching stands before us as a practical way to overcome the problem of not being able to teach a foreign language in the short, medium and long term. Thanks to such an application, which can be developed with the support of the Ministry of National Education, a quality foreign language education can be delivered to all segments of the society easily, quickly and free of charge. The fact that the application is accessible and usable by anyone with a smartphone, tablet or computer will help to overcome the factors that hinder equality of opportunity in foreign language education such as time, cost, inability to reach competent teachers, and geographical distance.

The effectiveness of widely used foreign language teaching applications is limited. Application users often do not continue using the application after for a short time, which prevents possible language skill development. For example, in a study conducted on 4,000 Busuu users, it was found that only ¼ of the participants used the application for 6 months or longer (Rosell Aguilar, 2018, cited in Loewen S. et al., 2020). In another study, Kondo et al. (2012, cited in Loewen S. et al., 2020) stated that approximately one-third of the students who were asked to use a certain application during a term stopped using the application when the term was over, so they could not show the expected language development. Nielson (2011, in Loewen S. et al., 2020) reported in his study that American government employees who were asked to use Rosetta Stone and TELL ME MORE stopped using these applications after a very short time, therefore they could not collect data for analysis in their study. In short, the existing products on the market seem far from providing the claimed language proficiency to their users.

The application we propose to be developed is based on artificial intelligence and is planned to work with the logic of computer games. In other words, it is aimed to ensure that the user progresses to the next stages by fulfilling the tasks in a certain scenario, not as if he is learning a foreign language. Thanks to the voice recognition feature in the application, the voice responses of the user to the questions will be recorded, and these answers will be processed with the help of artificial intelligence, and individualized scenarios suitable for their level and interests will be presented to the user.

In more advanced versions of the application, parallel to the developments in technology, mobile phone cameras will become sensitive to motion, so the user's animated responses to English commands will be evaluated as correct or incorrect. At this stage, a language competency development is expected based on the principles of the Total Physical Response language teaching method developed by James Asher (2001) in the 1960s. In particular, activities that will activate the right hemisphere of the brain should be predominantly included in the application.

Developing such an application will be a revolutionary product for Turkey. Thanks to this application, it will be possible to teach a fast, effective and widespread English and other foreign languages including Turkish as a foreign language. The benefits of a fast and effective Turkish language teaching to millions of refugees in our country who have limited Turkish language skills, are beyond explanation.

To summarize, we can list the principles that should be included in the developed application as follows:

    1- The application should have content that is comprehensible, compelling, abundant and rich in input to the user in accordance with the Comprehension-Based Foreign Language Teaching Approach introduced by Krashen (1982).

    2- Foreign language assessment and evaluation practices to be included in the application should be designed and implemented in accordance with the Comprehension-Based approach.

    3- Within the application, a digital library (books and videos) consisting of English storybooks leveled from simple to complex should be created and made available to students.

    4- Three-dimensional simulation of the natural environments of the target language (home, school, restaurant, airport, etc.) in the application and 3D objects (pen, paper, plate, passport, etc.) in these environments that can be moved by the user's avatar, when necessary, should be designed.

    5- With voiced (and written) commands given by the program, the user/student should be asked to perform certain tasks (brushing his teeth, writing on the board, buying food, buying tickets, etc.) in target language environments using the avatar of the user/student.

    6- In case of failing to fulfill the command or giving a wrong response, the wrong movement should be detected by the sensor camera, feedback should be given and it should be asked to repeat.

    7- Especially in situations that require verbal response at the beginner level, one- or two-word short answers or Yes-No should be enough,

    8- The language level should gradually get harder from beginner to intermediate.

    9- In case of true answers, a reward mechanism should be operated.

    10- It should be ensured that no progress can be made without understanding the verbal/written commands/messages.

    11- It should be ensured that the amount of linguistic input is satisfactory (input-rich).

    12- It should be ensured that students are not given grammatically incorrect entries.

A free application that can be developed under the sponsorship of the Ministry of National Education will definitely help to ensure equality of opportunity in foreign language education. An application including the above-mentioned features and is open to everyone's access will positively contribute to the solution of the foreign language problem in our country.

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