The Teaching of Turkish Words with [â, û, î] Sounds to Kazakh learners

[1] Mehmet Demirezen, [2] Meruyert Seitova

Abstract

This study investigated the effects of Kazakh phonology on the pronunciation of Turkish words with [â, û, î] sounds. The study was carried out at Hacettepe University, Turkey, in the fall term of 2022. The sample for the study consisted of 35 (22 males, 13 females) Kazakh master and doctoral students. Participants ranged in age from 24 to 36 with an average of 27 years old. The research employed a quantitative research design and the data were collected by means of pre-test and post-test. Between the pre-test and post-test a 3 hours' treatment of exercises, tongue-twisters, drills with [â, û, î] sounding words were conducted. The data was analysed by the SPSS 22 software. The results of the study showed that there was a significant difference among the means of the participants of two tests regarding their pronunciation.

Introduction

Turkish and Kazakh languages belong to Turkic language family whose languages are "genetically related" (Boeschoten, 2021, p.1); therefore, there are certain degrees of mutual intelligibility between them. In mutual intelligibility indicates that speakers of closely related languages can understand each other to certain degrees. That is why mutual intelligibility is a continuum marked by degrees of intelligibility, not by sharp divisions in communication. According to Lindsay (2010) there should be 90% intelligibility between languages to call a language as dialect. In a source, it is stated that there is a "%20" of mutual intelligibility between Turkish and Kazakh (http://www.fluther.com/17056/ which-languages-are-mutually-intelligible/). Lindsay (2010) claims that there is "% 40 of mutual intelligibility" between Turkish and Kazakh languages. A percentage of 90% intelligibility between two languages can establish these languages as dialects, but "% 40 of mutual intelligibility" between Turkish and Kazakh language make them as two distinct languages, coming from a common Turkic source.

[1] DEMİREZEN, M. Prof. Dr., Hacettepe University. ORCID: https://orcid.org/0000-0002-4061-4715

[2] SEITOVA, M. Ph.D., Associate Professor, Khoja Akhmet Yassawi International Kazakh-Turkish University. ORCID: https://orcid.org/0000-0002-0735-2469

When communicating in a second language (L2), pronunciation is crucial. Accurate communication is impossible without correct pronunciation, regardless of how well-versed we are in the structures and rules of the second language and how extensive our vocabulary is. According to Derwing and Munro (2005), "the study of pronunciation has been marginalized within the field of applied linguistics," which is one of the reasons pronunciation instruction was not taught in language courses. Prior to the audio-lingual method's emphasis on speaking and listening, language instructors mostly ignored pronunciation, despite the fact that it is crucial for communicating in a second language. By concentrating on how Kazakh Turkish learners pronounce a few chosen words in Turkish, the current study seeks to improve pronunciation. Kazakh and Turkish are related languages. Their content is comparable. They have many words of the same root. However. Structurally they are different.

The phonological learning of second languages is influenced by several variables. A number of criteria include the age at which a learner is initially exposed to the usage of a second language as well as the caliber and volume of second language input (Hammarbetg,1997). One significant element in learning pronunciation has been thought to be the age at which the target language was first encountered. Scovel (1988) asserts that since pronunciation is the sole aspect of a language that is directly physical and because individuals are prone to losing the abilities they used to acquire the first language as they age, it has a unique place in the process of learning a second language.

Literature review

Many types of studies have been conducted on teaching pronunciation. The studies based on audio materials, repetition, and studies focusing on segmental (Derwing et.al 1998; Jenkins and Setter, 2005; Demirezen, 2007). There are others highlighting the role of cognitive development, linguistic universals and psychological and sociological conditions (Baker, 2011; Jones, 1997; Fraser, 2001; Gilakjani,2011). Derwing et al (1998) supplied some empirical evidence for the cardinal points of teaching suprasegmentals and segmentals and the effects of these instructions in pronunciation teaching in English. Baran-Lucarz (2015) examined the following: sensory modality preference, the extent of Field Independence (FI) attributional style, self-concept, belief in the ability to control some factors affecting success in FL pronunciation learning. In Turkish context, there are also studies that address the same issue. For example, Demirezen (2007) discusses the *audio-articulation method* (AAM)*,* a method of teaching the correct pronunciation of the vocabulary items and rehabilitating the wrong articulation of problematic sounds by Turkish learners of English. This approach suggests the following fundamental stages for using AAM in an effort to correct foreign language learners' calcified pronunciation errors:

1. Identifying the phoneme that causes pronunciation issues;

2. Creating a genetic corpus of problematic words with 50-100 phonemes and pairs;

3. Using contrastive analysis to specify the terms into minimal pairs;

4. Creating a minimum pair corpus as an example of contrastive analysis from the overall corpus;

5. Creating basic phrases, problem-sound concentration sentences, cliché articulations, tongue twisters, and contextual cues for class practice.

In order to teach pronunciation and repair fossilized pronunciation errors, this approach focuses on phonemes, minimal pairs, minimal sentences and contextual cues. The AAM was used to teach the Turkish words bearing circumflex accent sounds to Kazakh learners of Turkish.

The intelligibility between the Turkish and Kazakh languages

The mutual intelligibility between Turkish and other Turkic languages is questionable. The question has been explored by Tekin (1979). He argues that no two languages can be entirely "mutually intelligible", let alone the subjectivity of this concept, so by mutual intelligibility, we understand mutual lexical proximity under standardized conditions. In any case, it turns out that Turkish is pretty much a Western language, and therefore is rather distant from other Turkic subgroups. Turkic languages are a group of closely related languages that belong to the Altaic language family. The Turkic languages share many phonological, morphological, and syntactic characteristics. However, Sakha, Khalaj, and Chuvash are very different from the others. Using linguistic, historical, and geographic factors, Johanson (2003) categorized the Turkic languages into four branches: southwestern (SW), northeastern (NE), southeastern (SE), and northwest (NW). Using the previously stated criteria, we may categorize Turkish and Kazakh as belonging to the southwest, or Oghuz branch, and the northwest, or Kipchak branch, respectively.

As Odlin (2003) argues that language transfer affects all linguistic subsystems including pragmatics and rhetoric, semantics, syntax, morphology, phonology, phonetics and orthography. Many scholars also tried to compare Turkish and Kazakh according to their syntax and morphology.

The enormous potential for extending stems through comparatively unalterable and unambiguous suffixes—many of which denote grammatical notions—defines Turkic word structure. Therefore, the words "to my daughters" in Turkish (kız-lar-ım-a) and Kazak (kız-dar-ım-a) are made up of the word "daughter" as well as possessive morphemes {-ım} (my) in Turkish and Kazakh, plural morphemes {-lar} in Turkish, {-dar} in Kazakh, and dative morphemes {-a } (to) suffixes. Sound harmony affects the clear and regular morphology. As a result, syllables formed with either a front or a rear tongue position often make up words. The majority of suffixes contain either front or back sounds, depending on the syllable that comes before them. Modern Turkic languages tend to place word stress, which is mostly high pitch, on the last syllable.

The case, plural, and possessive suffixes are all part of the nominal morphology. The cases include locatives ('in, at, on'), ablatives ('from'), genitives ('of'), datives ('to'), definite accusatives, and occasionally equatives ('like'), terminatives ('until'), commutatives ('with'), and so on. Free possessive pronouns coexist with possessive suffixes, such "my." There are no grammatical genders or definite articles, such as the Turkish o and the Kazakh ol "he, she, it." In general, there is no morphological distinction between nouns and adjectives. The words "most" (Turkish en iyi, Kazakh en zhaksy, "best") and "more" (Kazakh zhaksyrak, Turkish daha iyi, "better") are used to make superlatives and comparatives, respectively. Reduplication is used to create intense adjectives, such as the Turkish word kap-kara (quite black) and the Kazakh word kap-kara (very black) (kara = "black"). Numerals include cardinals, ordinals, collectives (Kazakh bes-eu a group of 5), distributives (on-ar '10 each'). Cardinals are often followed by nouns in the singular, such as the Turkish iki uçak (two aircraft) and the Kazakh eki ushak (two airplane). There are several simple and compound aspect-tense categories in the complicated verbal morphology. Long derived stems are created by combining suffixes, which indicate concepts like negative, passive, reciprocal, reflexive, and causative.

Similar to English prepositions, postpositions come after the words they functionally indicate. Turkish ev (in) önünde and Kazakh uı (dın) aldında, for instance, mean "in front of the house" (literally, "house-of front-its -at"), whereas Kazakh menen kein means "after me" (literally, "I-from after"). Compared to English, Turkic languages use fewer conjunctions. Examples of characteristics that do not match their heads in number or case include Turkish "büyük evlerde" and Kazakh "ulken uilerde" which is translates as "in big houses" (literally, "big house [-plural]-in," without any markers on the adjective).

In Turkic languages, subordinate clauses are commonly formed through verbal nouns that carry possessive, plural, and case markers. These constructions function similarly to that clauses in languages such as English and play a central role in complex sentence formation. For instance, the Kazakh sentence "balanin kelgenin bilemin" and its Turkish equivalent "*çocuğun geldiğini biliyorum* " both express the meaning "I know that the child has come."

Basic features of Turkish and Kazakh languages

The relations between languages and establishment of language families are cumbersome fields of study. From the Altaic language hypothesis point of view, Turkish and Kazakh are classified in the same family (Pereltsvaig, 2012). However, literature claims that there is not any study on the Turkish and Kazakh sound systems. But there are studies on Turkish and Azeri, Turkish and Mongolian and Turkish and Korean etc.

Turkish vowel chart 1.

	Front		Back	
	Unrounded	Rounded	Unrounded	Rounded
High	İ	Ü	ı	U
Low	E	Ö	a	O

Turkish has a highly symmetrical vowel system comprising eight phonemic vowels: ɑ/, /ɛ/ (e), /ɯ/ (ı), /i/, /ɔ/ (o), /ø/ (ö), /u/, and /y/ (ü). These vowels are systematically distinguished by the features of rounding, frontness, height, and backness (Göksel & Kerslake, 2004). Particularly in Arabic and Persian loanwords, each vowel might appear long: ma:vi, which means "blue," and kira, which means "rent." "Bosom" si:ne (Kerslaka and Göksel,2004, p.12).

Consonants are represented by 21 letters in Turkish: b, c, ç, d, f, g, ğ, h, j, k, l, m, n, p, r, s, ş, t, v, y, and z. In writing, the letter ğ, also known as yumuşak ge, or "soft g". It often indicates a deleted historical or underlying /g/; in many Anatolian dialects, it persists as a voiced fricative. As in dağa 'mountain dat' and dağ 'mountain' [dɑ:], ğ typically denotes nothing in between vowels and lengthens the preceding vowel in syllable-final (coda) position (Underhill, p. 165). Consequently, nonsensical syllables did not utilize the character ğ (/ɣ/). Five pairs of voiced and voiceless stops (/p, b/, /t, d/, /c, ɟ/, /k, g/) are present in standard Turkish.

The distinctive feature of Turkish phonology is behavior of consonant ğ, which does not surface as a typical fricative. When occurring in coda position, it triggers vowel lengthening, as in *dağ* [dɑ:] "mountain," whereas intervocalically it lacks phonetic realization (Underhill, 2006, p165). This absence of segmental content explains why ğ is excluded from artificially constructed syllables. Standard Turkish displays a rich consonantal system comprising paired voiced and voiceless stops ant affricates, a range of fricatives, two nasal consonants, several liquid segments, and approximants such as /j/ and /ɣ/ (Csató & Johanson, 1998; Zimmer & Orgun,1999). A further regularity of the system is the devoicing of plosives and affricates at syllable boundaries, particularly in word-final position (Kornfilt,1997, p.491)

Kazakh vowel chart 2.

	Broad			Narrow	
	Broad	Semi-broad			
Hard	A	-	o	U	I
Soft	Ä	E	ö	Ü	İ
	Straight		Round		Straight

Kazakh is a member of the Turkic language family. Its alphabet is based on the Cyrillic alphabet. It contains 42 letters: 33 from the Russian alphabet with 9 additional letters for sounds of the Kazakh language. There are 37 sounds, 12 vowels, 25 consonants.

The systematic study of Kazakh phonetics began in the nineteenth century, when linguistic research was closely interwined with administrative and strategic interests in the Kazakh steppe. Efforts to describe the language were motivated in part by the need to produce dictionaries and introductory grammars for practical use lacking pre-existing descriptive frameworks, researchers such as Radloff were compelled to collect data directly from native speakers through aural fieldwork. Consequently, their phonetic transcriptions reflect spontaneous spoken usage and offer valuable insight into pre-standardized Kazakh pronunciation. Since their recording technique correctly captures the synharmonic absorption and change of sounds in word construction, it may be somewhat similar to contemporary recording technology.

 Researchers' written records can be positioned next to a contemporary dictionary of pronunciation. In phonetic description, articulation is frequently associated with the production of individual segments, as these units are relatively straightforward to identify and classify. Nevertheless, speech production is inherently continuous, consisting of dynamically coordinated articulatory gestures that extend across sound boundaries and cannot be fully captured through segmental analysis alone.

Ten to thirty years of the previous century are covered in the upcoming study period. The primary characteristic of this era is its strong ties to Kazakh intellectuals like Baitursynov, Dosmukhamedov, Zhubanov, and others who studied phonetics (Kassymova,2012). All of the researchers were native speakers of Kazakh, therefore they were able to identify numerous aspects of the language's phonetic system that had previously escaped the attention of foreign language scholars.

In a comparing and contrasting Kazakh and Turkish, their alphabetical system is different, Kazakh alphabet based on Cyrillic and Turkish alphabet based on Latin alphabet however these two languages belong to the same language family. Kazakh language is full of consonants while Turkish language full of vowels. That is why Kazakh is soli , Turkish is mild. For example, "jumsak (жұмсақ) in Kazakh, yumuşak ın Turkısh".

The Turkish and Kazakh languages are different because sounds in two languages show different physical characteristics, including both acoustic characteristics and articulatory characteristics. According to Odlin (1989), two languages frequently have sounds which may seem identical but which in fact are acoustically different. For example, a comparison of the Turkish [â] with the Kazakh [a] shows differences. As a contrastive analysis would predict, Turkish pronunciation of the Turkish [â] sound is longer that the Kazakh pronunciation of the Kazakh [a] sound.

Finally, the Turkish sounds like [â, û, î] do not exist in Kazakh, but there are some similarities in meanings of the words with circumflex accent sound. In the paper, we categorized the words into three categories "similar," little different", and "totally different." The examples are given below:

Table 1. Words with similar meanings

	Turkish glossary	Meaning	Kazakh word	Meaning
1	Sûre	Surah	sure	Surah
2	Âdem	Man	adam	Man
3	Âdet	Tradition	adet	Tradition
4	Âmin	Amin	amin, aumin	Amin
5	Âşık	in love	gashyk	in love
6	Belâ	Damn	bale	Damn
7	Kabul	Accept	kabyl	Accept
8	Cemâat	Community	zhamagat	Community
9	Deryâ	Sea	darya	Sea
10	hikâye	Story	hikaya	Story
11	Devrân	Period	dauren	Period
12	Hizmetkâr	Servant	kyzmetker	Servant
13	Dinî	Religious	dini	Religious
14	Hükûmet	government	ukimet	Government
15	İlâhi	Divine	ilahi	Divine
16	Dükkân	Shop	duken	Shop
17	Fâni	Mortal	fani	Mortal
18	Günahkâr	Sinner	kunahar	Sinner
19	İlân	Believe	ilan	Believe
20	Lânet	Curse	lagynet	Curse
21	Lâmba	Lamp	lampa	Lamp
22	Mekân	Place	meken	Place
23	Meselâ	Example	mysaly	Example
24	Nâzik	Kind	nazik	Kind
25	Nikâh	Wedding	neke	Marriage
26	Plâj	Beach	plaj	Beach
27	Plân	Plan	plan	Plan
28	Reklâm	advertisement	reklama	Advertisement
29	Resmî	Official	resmi	Official
30	Selâm	Hi	salem	Hi
31	Zâlim	Evil	zalym	Evil

As it is seen in the Table 1, many Turkish words with circumflex sounds exit in Kazakh with the same meaning, yet the pronunciation of words is slightly different

Table 2. Words with little different meanings

	Turkish word	Meaning	Kazakh word	Meaning
1	Âciz	weak	Alsiz	Weak
2	Nâr	pomegranate	Anar	Pomegranate
3	Adâb	etiquette	Adep	Etiquette
4	Dervâze	gate	Darbaza	Gate
5	Nâsıb	proportion	Nesibe	Proportion

Table 2 shows that some Turkish words with circumflex accent sound and Kazakh words have the same meaning but there is little difference in spelling

Table 3. Totally different words

	Turkish word	Meaning	Kazakh word	Meaning
1	Âlî	Lofty	Ali	Yet
2	Âlâ	Blind	Ala	a type of color
3	Kâr	Profit	Kar	Snow
4	Sâri	Infectious	Sary	Yellow
5	Külâh	Cone	Kulah	Ear

However, Table 3 shows that some of the Turkish words with circumflex sound exist in both languages, but the spellings are the same but meanings are different. From the given examples, we can claim that Turkish and Kazakh languages share many common features, however, when two languages compared phonologically it will be seen that there are significant differences.

The characteristics of Turkish [â, û, î] Sounds

In English the usage of this sign (ˆ) is called "The circumflex accent". The circumflex accent (^) may stand over the vowels a, i, and u (<â, û, î>). It has two functions.

a.   Standing over the letter **a** which is preceded by g, k , or ı (gâ, kâ, lâ), the circumflex indicates that **a y** sound is to be pronounced between the consonant and the following a. In the syllable, lâ the y sound is fainter than in the syllables gâ, kâ.

Turkish	**Meaning**	**Kazakh**	**Meaning**
gâvur [gâvur]	heathen	**zhauyr** [dʒauɪr]	to be fed up
kâr [kɑːr]	profit (cf. **kar** 'snow')	**kar** [kar]	snow
kabûl [kabʊːl]	accept	**kabyl** [kabʊl]	accept

lâmba [lɑmba]	lamp	**lampa** [lampa]	lamp
lânet [lɑ:net]	curse	**lagynet** [laginet]	curse

b.   Except in the syllables gâ, kâ, and lathe circumflex indicates that the vowel sound is to be prolonged. This is the case in the many (originally Arabic) adjectives ending in î.

Turkish	Meaning	Kazakh	Meaning
resmî [resmî:]	official	**resmi** [resmi]	official
edebî [edebî:]	literary	**adebi** [ædebi]	literary
dinî [dinî:]	religious	**dini** [dinî]	religious

Sometimes the circumflex is used to distinguish between two words which, without it, would be spelled and pronounced identically.

Turkish	Meaning	Kazakh	Meaning
Ali [ali]	proper name (of a man)	**Ali** [æli]	proper name (of a man)
âli [ɑ:li:]	lofty, sublime	**ali** [æli]	yet

Occasionally a word beginning with ga, ka, or la has a long vowel in the first syllable but does not have in that syllable that y sound which the use of a circumflex (gâ, kâ, lâ) would indicate. This may be shown by doubling the a. eg. Kaatil "murderer." Compare katil "murder" (Thomas,2012, p. 201).

Methodology

This study investigated the effect of Kazakh phonology on the pronunciation of Turkish words with [â, û, î] sounds. In other words, the current study sought to find out how accurately Kazakh learners of Turkish articulate these words in Turkish.

Study design

Basically, the present study aims to examine whether the spelling of Turkish words with [â, û, î] sounds make difficulties to Kazakh learners of Turkish.The present study adopts a quantitative research design and seeks to address the following research questions:

1. What is the students' level of success in pronouncing 20 target words in both the pre-test and post-test?
2. Which of the 20 words pose the greatest pronunciation challenges in the pre-test and post-test?
3. Is there a statistically significant difference between the pre-test and post-test scores?

4. Does gender influence students' pronunciation success in the pre-test and post -test?

Participants and setting

The study was carried out at Hacettepe University, Turkey, in the fall term of 2022. The sample for the study consists of 35 (22 males, 13 females) Kazakh master and doctoral students. All participants were students studying in Ankara, Turkey, and their majors were different. Participants ranged in age from 24 to 36 with an average of 27 years old.

Instruments

In the current study the data were collected by means of pre-test and post-test. The corpus included frequently used 20 Turkish words with [â, û, î] sounds. First, the pre-test was taken. The participants were asked to read out loud the words one after the other in one-to-one session, and the pronunciations the participants uttered were recorded by the researcher. The recordings were listed. Then it was 3 hours' treatment of exercises, tongue-twisters, drills with [â, û, î] sound words. After two weeks, the post-test was given once again. In addition, the participants were asked to read loud the words one after the other in one-to-one session, the pronunciations the participants uttered were recorded by the researcher. Pre and post- tests were statistically analyzed by IBM SPSS Statistic 22 software to answer the research questions of the study. The researcher ensured that there were no missing data or errors in the variables. Descriptive statistics and a paired samples T-test was used to address the research questions.

Findings and Discussion

1.What is the students' level of success in pronouncing 20 target words in both the pre-test and post-test?

Table 4. Descriptive statistics of the participants' rate of success in terms of pronunciation of the 20 words in the pre-test and post-test

Model	N	Mean	Std.deviation	Minimum	Maximum	Success rate %
Pretest	35	27.99	7.45	2	20	70.29
Posttest	35	38.17	2.34	13	20	89.6

In order to answer the first research question, descriptive statistics (mean, standard deviation, minimum and maximum scores) was conducted by using IBM SPSS statistics 22 program. While the mean score of the pre-test is 27.99, the mean score of the post-test 38.17.While the minimum score of the pre-test is 2 and the maximum score is 20. And the minimum score is 19 and maximum score of the post test is 20. The results of the pre-test and post –test are quite different from each other. The observed difference of the pre-test to the post-test is positive, improvement is about 19.31 %.

2. Which of the 20 words pose the greatest pronunciation challenges in the pre-test and post-test?

Table 5. Difficulty order of Items Based on Pronunciation of 20 Words in Pre-Test

Voc. Items	N	Sum	Mean	Std. Deviation
Kâğıt	35	11.00	.3143	.47101
Pekâlâ	35	17.00	.4857	.50709
Hâlâ	35	17.00	.4857	.50709
Bekâr	35	18.00	.5143	.50709
Plâj	35	21.00	.6000	.49705
Plân	35	22.00	.6286	.49024
Âlâ	35	23.00	.6571	.48159
Âlî	35	23.00	.6571	.48159
Âlim	35	23.00	.6571	.48159
Kâbus	35	24.00	.6857	.47101
Nikâh	35	24.00	.6857	.47101
Rüzgâr	35	25.00	.7143	.45835
İmkân	35	26.00	.7429	.44344
Zekâ	35	29.00	.8286	.38239
Kâhyâ	35	30.00	.8571	.35504
Selâm	35	30.00	.8571	.35504
Âmâ	35	30.00	.8571	.35504
Hâkim	35	31.00	.8857	.32280
İftâr	35	33.00	.9429	.23550
Âşık	35	35.00	1.0000	.00000
valid N (listwise)	35			
Success rate percentage				70,29

The second research question about the words that the participants have difficulty in pronouncing depicted the following picture. The most problematic words were given in ascending order in Table 5. The most problematic 11 words that below 70 % of correct pronunciation were discussed in the study. They are: kâğıt (M=0.31, correct= 31.4); pekâlâ (M = 0.48, correct = 48.5 %) ; hâlâ (M =0.48, correct = 48.5 %); plâj (M=0.60, correct = 60%); plân (M=0.62,correct=62.8 %); âlâ (M=0.65, correct=65.7); âlî (M=0.65, correct=65.7%); âlim (M=0.65,correct=65.7 %); kâbus (M = 0.68, correct = 68.5%); nikâh (M=0.68, correct = 68.5 %) respectively.

Table 6. Difficulty order of Items Based on Pronunciation of 20 Words in Post-Test

	N	Sum	Mean	Std. Deviation
Kâğıt	35	22.00	.6286	.49024
Pekâlâ	35	26.00	.7429	.44344
Rüzgâr	35	26.00	.7429	.44344
Kâbus	35	28.00	.8000	.40584
Âlâ	35	28.00	.8000	.40584
Hâlâ	35	30.00	.8571	.35504
Bekâr	35	31.00	.8857	.32280

Selâm	35	31.00	.8857	.32280
Âlim	35	31.00	.8857	.32280
Plâj	35	32.00	.9143	.28403
Imkân	35	33.00	.9429	.23550
Kâhyâ	35	33.00	.9429	.23550
Plân	35	33.00	.9429	.23550
Hâkim	35	34.00	.9714	.16903
Iftâr	35	34.00	.9714	.16903
Âşık	35	35.00	1.0000	.00000
Nikâh	35	35.00	1.0000	.00000
Zekâ	35	35.00	1.0000	.00000
Âmâ	35	35.00	1.0000	.00000
Âlî	35	35.00	1.0000	.00000
valid N (listwise)	35			
Success rate percentage				89,6

According to the post-test only the word **kâğıt** (paper) (M=0.62, correct= 62.8 %) has remained still problematic. The cause of the problem seems to be the existence of the dorso-velar fricative, which is /ɣ/, in the word **kağıt** (paper) whose articulation happens to be difficult for the participants.

Based on the results presented in table 6, this study claims that certain development has taken place. This was reflected in the differences in the mean score of the whole group in the pre-test and the post-test.

3. Is there a statistically significant difference between the pre-test and post-test scores?

Table 7. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre	14.0571	35	3.93284	.66477
	Post	19.2286	35	1.23873	.20938

The mean for the pre-test is 14.05. The Mean for the post –test is 19.22. The standard deviation for the pre-test is 3.93 and for the post –test is 1.23. The number of participants in each condition (N) is 35.

Table 8 Paired Sample T-test results

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	Df	Sig. (2-tailed)

Pair 1	Pre – Post	-5.17143	3.51874	.59478	-6.38016	-3.96270	-8.695	34	.000

From the table 8, we can see that the Sig. (2 tailed) value in our research is 0.000. This value is less than 0.05. Because of this, we can conclude that there is a statistically significant difference between the Mean scores of pre-test and post-test. Since our Paired Samples Statistics box revealed that the Mean scores for the post-test was greater than Mean scores for the pre-test , we can conclude that the participants in the post –test were able to succeed in pronouncing the 20 words that in the pre-test.

4. Does gender influence students' pronunciation success in the pre-test and post -test?

Table 9. Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Pre	Male	22	14.2273	4.45006	.94876
	Female	13	13.7692	3.00427	.83323
Post	Male	22	19.6364	.95346	.20328
	Female	13	18.5385	1.39137	.38590

Group statistics output shows that there is a slight difference between males and females' pronunciation of 20 words. This sample difference between the male mean of 14.22 and female mean of 13.76 is 0,46 in the pre-test. And the sample difference between male mean of 19.63 and female mean of 18.53 is 1.1 in the post-test.

Table 10. Independent samples t-test results

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Pre	Equal variances assumed	1.582	.217	.329	33	.745	.45804	1.39422		-2.37852	3.29460
	Equal variances not assumed			.363	32.281	.719	.45804	1.26270		-2.11312	3.02921
Post	Equal variances assumed	2.454	.127	2.771	33	.009	1.09790	.39616		.29190	1.90390
	Equal variances not assumed			2.517	18.758	.021	1.09790	.43616		.18421	2.01160

However, the p-value for the equal variances t-test is p=0.745 for males and p=0.719 for females in pre –test and versus p=0.0009 for males and p=0.021 for female participants of the research. Since this p value is greater than 0.05 in both tests, the answer would be that there is no significant difference between success rate of gender.

Conclusion

Pronunciation is one of the aspects in speaking skill which focuses on the students' fluency in producing a clearer language when they speak. It deals with the phonological process that refers to the component of a grammar that is made up of the elements and principles that determine how sounds vary and pattern in a language. So, pronunciation is an important element for the students.

The results of the study revealed a significant improvement in participants' pronunciation between the pre-test and post-test. Post-test scores indicate that most students demonstrated clearer and more accurate pronunciation, although a few learners continued to encounter difficulties. These findings suggest that targeted exercises, such as tongue-twisters, minimal pairs, and pronunciation drills, can effectively enhance learners' pronunciation skills. In particular, students who initially struggled with Turkish words containing circumflex accents are likely to improve with consistent practice in everyday contexts.

Overall, pronunciation constitutes a key component of speaking proficiency, contributing to the clarity and fluency of oral communication. The study also highlights the influence of L1 phonological processes on L2 pronunciation: interference from native language sound patterns remains a persistent factor in learners' articulation of foreign vocabulary.

In this research, we only studied the segmental errors. The literature on second language acquisition and language teaching is replete with descriptions of the difficulties that learners encounter in trying to pronounce sounds in a foreign language, and contrastive explanations in the area of learning and teaching pronunciation for such difficulties are quite common. The results of the study showed that there was a significant difference among the means of the participants of two tests regarding their pronunciation. Based on the result of post-test, the data showed that the students' ability in the pronunciation of words improved from the pre-test. It can be stated that the learners can have a good and clear pronunciation in L2 if there are instructed with vivid texts and exercises. So, it can be concluded that the students' pronunciation ability can be improved by using exercises, tongue-twisters, minimal-pairs, and drills. The Kazakh students of Turkish language learners who have still difficulties in pronouncing the Turkish words with circumflex accent will be able to pronounce those words correctly after using them in their everyday Turkish.

The current study shows that the phonological characteristics of Kazakh have a significant impact on how Kazakh speakers perceive Turkish words with circumflex accent sounds. The study's findings demonstrate the intricate perceptual link between the phonologies of Turkish and Kazakh.

Language learners will be able to communicate more effectively if they are aware of the similarities and contrasts between Turkish and Kazakh words that include [â, û, î] sounds. Additional experimental research is necessary in light of the findings, particularly with regard to Turkish and Kazakh phonology.

Overal, mutual intelligibility is an advantage between genetically related languages in the field of learning foreign languages (Demirezen and Abi). "The mutual intelligibility between Turkish and Kazakh roughly ranges form % 40 to % 20. Still, it can be deduced that languages that come from the same typology will positively affect ultimate attainment of the language learners (Birdsong 82-105). The same typology of languages again apparently seems to facilitate the foundations of bilingual education and bilingualism (Baker).

Bibliography

Baker, Ann. *Ship or sheep? Book and audio CD Pack: An intermediate pronunciation course*. Cambridge University Press, 2006.

Baker, Colin. *Foundations of bilingual education and bilingualism*. Multilingual matters, 2011.

Birdsong, David. "Second language acquisition and ultimate attainment." *The handbook of applied linguistics* (2004): 82-105.

Boeschoten, Hendrik. "The speakers of Turkic languages." *The Turkic Languages*. Routledge, 2021. 1-12.

Demirezen, M. (2007). A Model to Rehabilitate a Fossilized Pronunciation Error of Turkish English Language Teachers: the English Consonant Phoneme / ŋ / Wrongly Articulated as /ŋk/ Through Nasal Devoicing. *Journal of Language and Linguistic Studies*, *3*(2), 289-303.

Demirezen, Mehmet, and Abi Mehmet . "The effect of typological factors on learning Turkish as a foreign language." *Journal of World of Turks/Zeitschrift für die Welt der Türken* 9.3 (2017).

Derwing, Tracey M., and Murray J. Munro. "Second language accent and pronunciation teaching: A research-based approach." *TESOL quarterly* 39.3 (2005): 379-397.

Derwing, Tracey M., Murray J. Munro, and Grace Wiebe. "Evidence in favor of a broad framework for pronunciation instruction." *Language learning* 48.3 (1998): 393-410.

Fraser, Helen. *Teaching pronunciation: A handbook for teachers and trainers. Three frameworks for an integrated approach*. New South Wales, 2001.

Gilakjani, Abbas Pourhossein, and Mohammad Reza Ahmadi. "Why Is Pronunciation So Difficult to Learn?." *English language teaching* 4.3 (2011): 74-83.

Göksel, Aslı, and Celia Kerslake. *Turkish: A comprehensive grammar*. Routledge, 2004.

Göksel, Aslı, and Celia Kerslake. *Turkish: A comprehensive grammar*. Routledge, 2004.

Csató, Éva Á., and Lars Johanson. "Turkish." *The Turkic Languages*, edited by Lars Johanson and Éva Á. Csató, Routledge, 1998, pp. 203–235.

Johanson, Lars. "Turkic Languages." *Encyclopedia Britannica Online*, 2003, www.britannica.com.

Jones, Richard H. "Beyond 'Listen and Repeat': Pronunciation Teaching Materials and Theories of Second Language Acquisition." *System*, vol. 25, no. 1, 1997, pp. 103–112.

Jones, Dylan M., William J. Macken, and Andrew P. Nicholls. "The Phonological Store of Working Memory: Is It Phonological and Is It a Store?" *Journal of Experimental Psychology: Learning, Memory, and Cognition*, vol. 30, no. 3, 2004, pp. 656–674.

Kassymova, Dinara, Zhanar Kundakbayeva, and Uli Markus. *Historical Dictionary of Kazakhstan*. Scarecrow Press, 2012.

Konfilt, J. *Turkish*. Routledge, 1997.

Lado, Robert. *Linguistics Across Cultures: Applied Linguistics for Language Teachers*. University of Michigan Press, 1957.

Odlin, Terence. *Language Transfer: Cross-Linguistic Influence in Language Learning*. Cambridge University Press, 1989.

Pereltsvaig, Asya. *Languages of the World: An Introduction*. Cambridge University Press, 2012.

Scovel, Thomas. *A Time to Speak: A Psycholinguistic Inquiry into the Critical Period for Human Language*. Wadsworth Publishing Company, 1988.

Setter, Jane, and Jennifer Jenkins. "Teaching English Pronunciation: A State of the Art Review." *Language Teaching*, vol. 38, no. 1, 2005, pp. 1–16.

Tekin, Talat. "Once More Zetacism and Sigmatism." *Central Asiatic Journal*, vol. 23, 1979, pp. 118–137.

Thomas, Lewis. *Elementary Turkish*. Courier Corporation, 2012.

Underhill, Robert, and Keith Brown, editors. *Encyclopedia of Language and Linguistics*. Elsevier, 2006, pp. 164–168.

Yu, Li, and Terence Odlin, editors. *New Perspectives on Transfer in Second Language Learning*. Vol. 92, Multilingual Matters, 2015.

Zimmer, Karl, and Orhan Orgun. "Turkish." *Handbook of the International Phonetic Association: A Guide to the Use of the International Phonetic Alphabet*, Cambridge University Press, 1999, pp. 154–156.