



## ASSIMILATION OF SOUNDS IN THE TURKISH LANGUAGE: A CASE STUDY OF HIGH SCHOOL STUDENTS AT KARABUK REGION (TURKEY)

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Article Info	Abstract
<p><b>Keywords</b></p> <p>Consonant assimilation Assimilation Qualitative High school students Eflani (Turkish) dialect</p>	<p>Assimilation of sounds is an interesting aspect of communication among speakers of the mother tongue. Mastering assimilation is significant to understanding the daily conversations while communicating, particularly with the increasing number of international students as well as the refugees in Turkey. Thus, researching assimilation and how native Turkish speakers talk have become a necessity. Therefore, this study aims at analyzing consonant assimilation among high school Turkish students. The qualitative data were obtained from eleven voluntary female students who were selected randomly from the 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grades of IMKB Multi/Program High School in Karabuk, Turkey. The findings show that there are fourteen assimilated sounds that we observed during the conversations. The number of progressive assimilations that we found in our study is limited. Most of the assimilated sounds observed in this study are made up of regressive assimilation. These findings could be pedagogically employed because understanding the consonant changes resulting from assimilation will improve foreigners' communication skills and ease their adaptation to the Turkish society.</p>
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### 1. Introduction

Turkey is a monolingual country in which the Turkish language is the only official as well as the spoken language by the majority of Turkish people. Recently, Turkey has become one of the largest countries in hosting international students as well as refugees escaping from the devastating conditions in their countries. These foreigners and international students need to understand the Turkish language in their daily conversations with the native Turkish speakers. However, assimilation with its types is a problematical issue all over the world. For example, Hayes (1984) emphasizes voicing assimilation as a great hindrance to efficient pronunciation. Besides, Rubach (1996) argues that the non-native learners of Polish find non-syllabic analysis of voice assimilation very difficult to understand. Further, assimilation regardless of its types is not only a problematic issue in the Turkish language but also in other languages. In their study, Helgason and Ringen (2008) point out that assimilation is a critical

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pronunciation problem and it is surprisingly difficult to find accurate information about Swedish stops and voicing assimilation (Helgason & Ringen, 2008). Therefore, showing how the native Turkish people use language in speaking has become a necessity for the international students as well as refugees to make it easier for them to both understand and speak like native people. One of the characteristics of spoken languages in general and Turkish language in specific is assimilation. Therefore, this study explores how IMKB Multi/Program High School Students of Eflani use the Turkish language in the framework of their dialect. More specifically, this study explores what sort of differences occur in pronunciation and how they use the words phonologically differently from Istanbul Turkish dialect since the latter is accepted as the standard of the Turkish language.

Each language system around the world either written or spoken has its own characteristics in terms of phonology, syntax, semantics, morphology, and phonetics and is prone to changes since they are used incessantly. Many reasons can lead to the sound changes that occur in the voices including vowels and consonants. One of the sound changes is assimilation. For instance, many differences due to assimilation in the use of dialects in the Turkish language differ based on each region across Turkey. In their study, Karlık and Akbarov (2015) argue that like other languages, Turkish has many dialects which differ according to the region. People in the Western part of Turkey speak differently from people in the Eastern part because of psychological and geographical reasons. The language is the same, but the dialects of the region make it incomprehensible to other people (Karlık & Akbarov, 2015). Changes in the structure of the language over time have made it necessary to assimilate numerous sounds affecting the language structure to provide convenience, comfort, and practicality in the language of speech in line with the principle of minimum effort. More specifically, lexical and phonological differences affect the dialects in terms of word formation across. Therefore, it is important to have dialect-based studies to examine how the language develops and to what extent the dialects differ from each other based on each region. Therefore, this study focuses on exploring only the dialect used in Eflani county of KARABUK in terms of consonant assimilation. Hence, foreign students learning the Turkish language who study at Karabuk University can benefit from this study as they will have an idea about how this dialect differs from other Turkish dialects. Eflani, in Turkey's Black Sea Coast, is located in the eastern part of the province of Zonguldak. It is surrounded by Araç county of Kastamonu Province in the east, Safranbolu county of Karabuk Province in the west, and Ulus county of Bartın Province in the north. More specifically, Eflani is 46 km from Karabük Province.

Dialects are closely related to assimilation, and the degree of phoneme changes shows differences geographically. The dialect means a regional variety of language distinguished by features of vocabulary, grammar, and pronunciation compared to other regional varieties and constitutes together with them a single language (Merriam-Webster, 2020). The geographical variation is indeed quite important in regional dialects, but it is not enough to shape that dialect on its own because some other factors are also significant. The social background of a person will also affect the variety of the language spoken by the individual. For example, two children might grow up in the same region, but the economic background that they have in terms of educational and social opportunities affects how they will speak, and this situation will end up speaking so many varieties of a certain language. It is this type of combination that has the potential of creating different forms of speaking, thereby affecting the dialect. Thus, each dialect can be regarded as unique and has a different lexical characteristic from others.

Voicing is a contributing factor to categorizing consonants in the Turkish language. The categorization of consonants is needed for consonant assimilation that we will focus on in our study. In Turkish, consonants are divided into two: Voiceless and Voiced Consonants. Voiceless consonants are made up of " p, t, k, s, ş, ç, h, f " and voiced consonants are " b, d, g, v, z, c, ğ, j, l, m, n, r, y ". Çç, Şş, and Ğğ sounds belonging to Turkish make it different from English in terms of consonants. Çç and Şş sounds are pronounced like the *ch* and the *sh* sounds in English, respectively. However, there is no word in Turkish beginning with Ğğ sound which is used to lengthen the preceding vowel, but it is used as if it is a voiced sound which is followed by suffixes that follow voiced consonants. Table 1. shows how words are produced using voiceless sounds:

**Table 1.** Words produced with voiceless sounds.

Sounds	English	Turkish	Meaning in English
Bb	as <i>b</i> in 'baker'	Beden	(Body)
Cc	as <i>c</i> in 'just'	Cennet	(Heaven)
Çç	as <i>ç</i> in 'child'	Çekirge	(Grasshopper)
Dd	as <i>d</i> in 'data'	Damat	(Groom)
Ff	as <i>f</i> in 'fit'	Fener	(Lantern)
Gg	as <i>g</i> in 'good'	Genç	(Young)
Ğğ	(soft <i>g</i> )	armağan (it lengthens the preceding vowel)	(Gift)
Hh	as <i>h</i> in 'home'	Haber	(News)
Jj	as <i>j</i> in 'exposure'	Jeton	(Token)
Kk	as <i>k</i> in 'kid'	Kestane	(Chestnut)
Ll	as <i>l</i> in 'laser'	Lazer	(Laser)
Mm	as <i>m</i> in 'method'	Metot	(Method)
Nn	as <i>n</i> in 'nanny'	Nane	(Mint)
Pp	as <i>p</i> in 'pasta'	Pelikan	(Pelican)
Rr	as <i>r</i> in 'rabbit'	Randevu	(appointment)
Ss	as <i>s</i> in 'snow'	Serçe	(Sparrow)
Şş	as <i>ş</i> in 'shadow'	Şair	(Poet)
Tt	as <i>t</i> in 'time'	Tencere	(Saucepan)
Vv	as <i>v</i> in 'verse'	Veli	(Parent)
Yy	as <i>y</i> in 'yellow'	Yetim	(Orphan)
Zz	as <i>z</i> in 'zebra'	Zebra	(Zebra)

Assimilation means that two sounds in a speech that are next to each other become more similar to each other in terms of pronunciation, such as the pronunciation of the /t/ in football as a /p/ (Oxford Learner's Dictionaries, 2020). In other words,

assimilation is the influence of a sound on a neighboring sound so that the two become similar or the same. For example, the Latin prefix *in-* 'not, non-, un-' appears in English as *il-*, *im-* and *ir-* in the words *illegal*, *immoral*, *impossible* (both *m* and *p* are bilabial consonants), and '*irresponsible*' as well as the unassimilated original form *in-* in '*indecent*' and '*incompetent*'. Although the assimilation of the *n* of *in-* to the following consonant in the preceding examples was inherited from Latin, English examples that would be considered native are also plentiful. In a rapid speech, native speakers of English tend to pronounce '*ten bucks*' as '*tembucks*', and in anticipation of the voiceless /s/ in '*son*' the final consonant of '*his*' in '*his son*' is not as fully voiced as the /s/ in '*his daughter*', where it is pronounced as /z/ (Salzmann, 2004). In this regard, Edwards (2003) states that features of adjacent sounds may combine so that one of the sounds may not be pronounced. The nasal feature of the *mn* combination in '*hymn*' results in the loss of /n/ in this word (progressive assimilation), but not in *hymnal*. Likewise, the alveolar production of *nt* in a word such as '*winter*' may result in the loss of /t/ to produce a word that sounds like '*winner*'. However, the /t/ is pronounced in '*wintry*'. Crystal (2008) emphasizes that assimilation may be partial or total. In the phrase '*ten bikes*', for example, the normal form in colloquial speech would be /tem baiks/, not /ten baiks/, which would sound somewhat 'careful.' In this case, the assimilation has been partial: the /n/ sound has fallen under the influence of the following /b/, and has adopted its bilabiality, becoming /m/. It has not, however, adopted its plosiveness. The phrase /teb baiks/ would be likely only if one had a severe cold! The assimilation is total in *ten mice* /tem mais/, where the /n/ sound is now identical with the /m/ which influenced it (Crystal, 2008).

However, assimilation with its types and manners is one of the controversial issues. Hayes (1984) clearly states that the significance of voicing assimilation is an obstacle for efficient pronunciation and he is of the opinion that assimilation occurs in different degrees according to the characteristics of that language. A further classification is in terms of the direction in which the assimilation appears. In this regard, there are three possibilities: (a) regressive (or anticipatory) assimilation: the sound changes because of the influence of the following sound, e.g. '*ten bikes*'. This is particularly common in English in alveolar consonants in word/final position. (b) Progressive assimilation: the sound changes because of the influence of the preceding sound, e.g. *lunch score* articulated with the *s/* becoming /à/, under the influence of the preceding, *ch*, but these assimilations are less common. (c) coalescent (or reciprocal) assimilation: there is a mutual influence or fusion of the sounds upon each other, as when '*don't you*' is

pronounced as /cdvântää/ / the /t/ and the /y/ have been fused to produce an affricate (Crystal, 2008).

In the context of the Turkish language, teaching consonant assimilation is carried out through optional allomorphs of Turkish in primary and secondary education. According to this approach, when an affix starting with consonants "b, c, d, g" are attached at the end of a word ending with one of the consonants "ç, f, h, k, p, s, ş, t (Fıstıkçı Şahap)" in Turkish, those consonants are transformed into consonants "p, ç, t, k" which are their strong counterparts. This change is called consonant assimilation (Karademir, 2017).

Thus, assimilation can be classified as regressive, progressive, and coalescence assimilation which are closely related to the place of articulation. This similarity is achieved by one of the sounds taking characteristics from the other. Besides, assimilations may be classified according to the direction in which the borrowing of characteristics is affected. More specifically, for two adjacent sounds, if a sound takes features from the sound following it, we talk about *regressive* or *anticipatory* assimilation since the features 'move' backward or are anticipated, as it was: A/B. When a sound takes features from the sound preceding it, we talk about *progressive* or *perseverative assimilation* since the features move forward A/B; they persevere into the following sound. There is a related process known as *coalescence* which is often described as a type of assimilation. In coalescence, two sounds merge into one sound which shares characteristics with the two original ones. In this sense, it is a kind of bi/directional assimilation (Lecumberri & Maidment, 2000).

Assimilation is particularly common for nasal sounds. Voicing the fricative in this context is therefore another example of assimilation, where one sound is influenced by another one close to it in the utterance (McMahon, 2002). Based on these definitions, assimilation can be described as a term that is closely related to the production of sounds in a way that helps the speaker produce sounds easily.

Roach (1983) states that assimilation is closely related to speaking rate and style; it is most probably to be encountered within rapid, casual speech and less likely when the utterances are produced in slow, careful speech. Even though it is sometimes very clear, it is sometimes very slight. In this regard, the most often described cases are those affecting consonants in terms of assimilation (Roach, 1983). As stated previously, it is common to come across assimilation in the dialects of people during everyday occurrences. Sometimes, they are very evident, but sometimes they are very slightly depending on the changes of consonants which show differences based on the region.

In another study, Karademir (2017) demonstrates that when first looking at the definitions of assimilation in the sources, they are almost the same. One of the voices in the same language that becomes similar to another voice in very different ways is called assimilation. More or less, the definitions of assimilation vary in the same direction that change according to the characteristics of that language and the people who use their own dialects in terms of phone differences.

In the Turkish language, assimilation is divided into subgroups according to the direction, location, and degree of assimilation:

### 1) Assimilation in terms of direction

- a. **Progressive Assimilation:** anlatmak>annatmak which means 'to tell'. The sound /l/ is affected by the neighboring /n/ sound.
- b. **Regressive Assimilation:** çarşanba>Çarşamba which means 'Wednesday'. The sound /n/ is affected by the neighboring /b/ sound and turns into /m/.

### 2) Assimilation in terms of location

- a. Close Assimilation yatsı>yassı which means 'time after the sunset'. The sound /t/ is affected by the neighboring sound /s/ and turns into /s/.
- b. Far Assimilation: etmek>ekmek which means 'a type of collocation like do and make'. The sound /t/ turns into /k/ in fast speech.

### 3) Assimilation in terms of degree

- a. Complete / Full Assimilation: yanlışı>yannışı which means 'wrong'. The sound /l/ is affected by the neighboring sound /n/ and turns into /n/.
- b. Semi/Half Assimilation: anbar>ambar which means 'storehouse' (Karademir, 2017)

In their study, Zuraiq and Abu Joudeh (2013) reveal that phonological assimilation can be seen either within a word or across a word. It is not limited to only consonants but also between vowels, consonants, or between consonants and vowels. Hence, a wide number of characteristics can be observed through the place, manner, voicing, vowel height, vowel rounding, and nasalization. Similarly, Hansson (2001) argues that voicing, stricture, nasality, vulgarity (among dorsals), secondary articulations, rhoticity, and so on are of great importance for long/distance consonant assimilations.

Phonological differences also exist below the level of the language: Two people think that they are speakers of the same language, but they vary in their usage (sometimes

you do say tomayto, while I say tomahto). This is not just an automatic phonetic matter. In some cases, a single speaker will always use one variant, but in others, individuals will use different variants on different occasions (McMahon, 2002). Generally speaking, it can be suggested that there is a close relationship between assimilation and dialects. More specifically, regional differences, economic status, the social environment, the psychological and geographical identity have an important role in shaping dialects and assimilation. Therefore, it is possible to create a phonological description for the region to some extent, but a generalization of phonological description will be impossible as different factors affect consonant changes.

## 2. Method

### 2.1. Participants

This study involved 11 female secondary students described in Table 2.

**Table 2.** *Descriptions of the participants.*

Name	Age	School	Village	Gender
P1	16	IMKB Multi/Program High School	Soğucak	Female
P2	16	IMKB Multi/Program High School	Balıca	Female
P3	17	IMKB Multi/Program High School	Soğucak	Female
P4	17	IMKB Multi/Program High School	Çemci	Female
P5	17	IMKB Multi/Program High School	Kayadibi	Female
P6	18	IMKB Multi/Program High School	Tabaklar	Female
P7	18	IMKB Multi/Program High School	Çukurören	Female
P8	18	IMKB Multi/Program High School	Pınarözü	Female
P9	19	IMKB Multi/Program High School	Paşabey	Female
P10	19	IMKB Multi/Program High School	Güngören	Female
P11	19	IMKB Multi/Program High School	Hacışaban	Female

11 students from 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grades of IMKB Multi/Program High School in Karabuk, TURKEY voluntarily participated in the study. In IMKB Multi/Program High School, where this study was carried out, the majority of the students have mobile teaching. The school where the students study is situated in the center of the town and most of the people live in villages and earn their living on farming. They do not work in a factory or in a shop. They often do not go to the city center except for urgent situations. Therefore, the assimilation of their dialect compared with the standard Turkish is quite slow so the dialect used by the villagers is not exposed to the effect and it has its own unique culture.

All the students signed a consent form in which they stated that their data could be used for scientific research anonymously. In the pre/interview, several words were determined to be used. The words that we collected from daily conversations were chosen randomly when we had a chat with different students in the school. After obtaining the words that we thought assimilation was possible, we prepared a list including 3 questions and 15 affirmative sentences collected from the students' daily conversations.

## 2.2. Research Design

This study employed an exploratory qualitative research design to show how assimilation occurs in the dialect of the high school students at one of the schools in Karabuk region. Each candidate was supposed to express the utterances in her language without adding any comments or words by using her own dialect unconsciously. They were not allowed to look at the sentences or questions as they were expected to express them in their own dialect. Every question or sentence was conveyed to the candidate orally. No students living in the center of the city were chosen as they might have the opportunity to go to another city, namely Safranbolu, where different people coming from other parts of Turkey live there and may have contact with people from other cities more often who speak a standard Turkish which is close to the Istanbul Turkish dialect. Each candidate was interviewed individually face-to-face for fifteen minutes. To make them calm, the aim of the study was explained after taking the necessary permission from the headmaster of the school. After each question or sentence was read orally, notes about the assimilated words were written paying attention to the sound differences occurring at the time of the interview.

## 3. Findings

Consonant assimilation is one of the most important topics that we should consider to explain how the Turkish language develops and to see how dialects differ from the standard Turkish. A study on 11 female students was conducted employing face-to-face interviews and some notes were written down during the interview. We need to see what kind of changes occur in terms of assimilation.

The following examples represent how assimilation occurred in the participants' speech

Dün yürüyüş yaptıktan sonra bir parkta **dinlendik**. (After going for a walk yesterday we had a rest.)

**dinlendik** → **dinnendik**

Here, it can be said that the /n/ sound applies "progressive assimilation" because in terms of phonics, /l/ sound is an alveolar consonant. In other words, the place of pronunciation is a further point in the mouth according to the /n/ sound. While the /n/sound is formed in the nasal access, it has a higher intonation value than the "l" sound. This situation provides the realization of the "progressive assimilation" case mentioned above.

Benim arkadaşım **nişanlı**. Gelecek ay evlenecek. (My friend is **engaged**. She is going to get married next month.)

a. **nişanlı** → **nişannı**

The same can be applied on this example. While the /n/ sound occurs in the nasal cavity, the /l/ sound occurs in the oral cavity. Therefore, when the air moves out of the lungs, first the /n/ sound is produced, then the /l/ sound is formed. In addition, the /n/ sound is stronger than the /l/ sound in terms of accent and intonation because it is a nasal sound.

Dün **karanlıkta** anahtarımı bulamadım. (I could not find my key **in the darkness** yesterday.)

a. **karanlıkta** → **karannuhda**

/n/ sound is a nasal consonant. Therefore, the nasal pronunciation of the sound /n/ also affects the pronunciation of the sounds following it. Namely, it makes a forward "sound interaction". This allows the sounds of /l/ and /k/ in the last syllable of the word 'karanlıkta' to change into "Karannuhda".

Arkadaşım çok güzel bir **gelinlik** satın aldı. (My friend bought a very beautiful **wedding dress**.)

a. **gelinlik** → **gelinnik**

In this example, in parallel with the explanations above, it is seen that the sound /n/ represents the "progressive assimilation".

**Aslında** bu konu hakkında konuşmak istemiyorum. (**Actually**, I do not want to talk about this issue.)

a. **aslında** → **assında**

/l/ sound is assimilated because of the effect of the preceding sound /s/

Banduma burada çok **meşhur** bir yemektir. (Banduma - a traditional food- is a very famous dish.)

a. **meşhur** → **meşşur**

In terms of phonology, the /j/ is an alveolar consonant. Although the /j/ sound and the assimilated /h/ sound are voiced, in terms of their vocal value, the /h/ sound is weak and tends to lose its sound value. In many compound words where the middle syllable is a vowel, it falls off during pronunciation as seen in other Turkish words here:

e.g. hastahane = hastane (hospital)

e.g. posta-hane > postane (post office)

Babam **tarlada** domates ekiyor. (My father is sowing tomato **in the field**.)

a. **tarlada** → **tallada**

/r/ sound and /l/ sound are similar sounds phonetically in terms of place of articulation. In this example, the /l/ sound has completely assimilated the following sound that is already close to it utilizing "regressive assimilation".

Is there a **pharmacy** near here? (Buralarda **eczane** var mı? )

a. **eczane** → **ezzane**

While the combination "ecza-hane > pharmacy" is formed, the weak sound /h/ drops. Subsequently, in the last form of the word, the /z/ sound has assimilated the /dʒ/ sound through the "regressive assimilation".

Eğer su **kaynamazsa** bana haber ver! (If water **does not boil**, please let me know!)

a. **kaynamazsa** → **kaynamassa, gaynamassa**

The regressive assimilation of /z/ sound because of the following /s/ sound is noticed.

**Bahçede** ne tür sebzeler var? (What type of vegetables are there **in the garden**?)

a. **bahçede** → **baççede**

The weak /h/ sound has been assimilated regressively by being affected by the following /f/ sound.

**İhtiyacın** olan şey biraz sabırdır. (What you **need** is a bit patience.)

a. **ihtiyacın** → **ittiyacın**

The weak /h/sound has been assimilated regressively by the /t/ sound.

**İnşallah**, ilk fırsatta seni arayacağım. (If **god lets**, I will call you at the first opportunity.)

a. **inşallah** → **işşalla, işşallah**

The /n/ sound is assimilated by the /ʃ/ sound by applying the regressive assimilation.

Bana hiç para **vermediler**. (They **did not give** me any money.)

a. **vermediler** → **vemmediler**

The /m/sound is a nasal bilabial consonant that affects the preceding /r/ sound through a process called regressive assimilation.

Benim kardeşim **başçavuştur**. (My brother is a **master sergeant**.)

a. **başçavuş** → **baççavuş**

Although both sounds have similar characteristics, as it is easier to pronounce because of the dialect characteristics, the /ʃ/ sound resembles the /f/ sound because of regressive assimilation.

Tabakta **azıcık** peynir var. (There is **little** cheese in the plate.)

a. **azıcık** → **accıh, eccük**

The middle syllable that bears the /ı/ sound is dropped during reinforcement due to the weakness of the vocal value of the sound. This loss of syllables caused the regressive assimilation" of the /dʒ/ sound.

Gerekli **malzemeleri** aldın mı? (Did you buy the necessary **equipment**?)

a. **malzemeleri** → **mazzemeleri**

There occurs regressive assimilation because of the consonant /z/ sound which affects the /l/ sound through assimilation.

**Yatsı** namazına geleceğim. (I will come to **night** prayer.)

a. **yatsı** → **yassı**

The consonant /s/ sound having a fricative feature affects the explosive alveolar consonant /t/ sound. As a result, regressive assimilation occurs.

Hakimler suçluları **mahkemede** yargılar. (Judges try people **in the court**.)

a. **mahkemede** → **makkemede**

The plosive /k/ sound affects the weak /h/ sound. As a result, regressive assimilation occurs.

Based on the examples of assimilations uttered by the participants, fourteen changes have been detected in this study. However, this number can change if the sentences include other words. The changes can be seen in Table 3.

**Table 3.** *Standard forms and dialectical changes.*

Forms	Consonants													
Standard Form	nl	sl	şh	rl	cz	Zs	Hç	ht	nş	rm	şç	lz	ts	hk
Dialectical Change	nn	ss	şş	ll	zz	Ss	Çç	tt	şş	mm	çç	zz	ss	kk

Assimilation occurs when the consonant sound at the end of one of the two words that come side by side in a word or follow each other in the word itself and the consonant at the beginning of the other affect each other. It occurs when one of the consonant sounds affects the other completely or partially. Thus, it can be concluded that regressive and progressive assimilations are used in the dialect of school students of Eflani county of KARABUK. Further, it has been observed that assimilation is seen between consonants that come side by side in the word itself rather than between two consecutive words in the local dialect.

### Characteristic Changes in the dialect of Eflani through Progressive Assimilation

The preceding consonant sounds in the word are partially or completely affecting the following consonant sound:

**1) /nl/ > /nn/ assimilation:** It is one of the most widespread used progressive assimilation changes. When a word beginning with /l/ sound used in a word ending with /n/ sound, /l/ sound affects /n/ sound, thus resulting in a progressive assimilation.

e.g.

dinlendik → dinnendik, ( which means 'have a rest' )

nişanlı → nişanni, (which means 'engaged')

gelinlik → gelinnik, (which means 'a wedding dress')

karanlıkta → karannuhda (which means 'in the darkness')

**2) /sl/ > /ss/ assimilation:** /sl/ turns into /ss/: This type of assimilation occurs, whereby /l/ sound becomes assimilated because of the effect of /s/ sound.

e.g.

aslında → assında (which means 'actually')

**3) /şh/ > /şş/ assimilation:** /şh/ turns into /şş/.

e.g.

meşhur → meşşur (which means 'famous').

It is also possible to notice similar changes and assimilations in the eastern part of Turkey. According to a study by Kotan (2017), the following examples were found:

orman+nıh < orman+lık, (which means 'greenwood') → **nn < nl assimilation**

hayvan+nar < hayvan+lar (which means 'animals'). → **nn < nl assimilation**

Yolları bir ormannıhdan keşdi. (which means their way came across in a greenwood)

Ormannıh telikeli, vaşi hayvannar çoğ... (Yolları birçok ormanlıktan geçti. Ormanlık tehlikeli, vahşi hayvanlar çok...) Greenwood was dangerous, so many wild animals... (Their way passed through so many forests).

uzun+nuh < uzun+luk (length)

Bir gılıç yerde diyh gapı tağdası kimindi. Bu uzunnuhdadı... Bir kılıç yerde dik kapı tahtası gibiydi. Bu uzunluktaydı... (which means 'a sword was like a steep board on the ground. It was such length) (Kotan, 2017).

When other examples are taken into account stated in the study by Kotan (2017), we can form a chart below to make a comparison, including the direction of assimilation in Table 4.

**Table 4.** *Direction of assimilation.*

Consonant assimilation	Examples
<b>nn &lt; nl assimilation</b>	orman+nıh < orman+lık, hayvan+nar < hayvan+lar
<b>nn &lt; nd assimilation</b>	gorh-u+su+n+nan < kork-u+su+n+dan, el+i+n+nen < el+i+n+den
<b>mn &lt; ml assimilation</b>	el+i+m+nen < el+i+m+le, adam+nan < adam+la
<b>mn &lt; md assimilation</b>	ağsam+nan < akşam+dan, kim+nen < kim+den
<b>ll &lt; rl assimilation</b>	gel-il+ler < gel+iyor+lar, yat-ıl+lar < yat+ıyor+lar
<b>rl &lt; rr assimilation</b>	hazır+rı-yır < hazır+lı-yor
<b>ss &lt; ls assimilation</b>	gas-sın < kal-sın
<b>şd &lt; şl assimilation</b>	kuş+dar < kuş+lar
<b>zl &lt; zd assimilation</b>	gö-z+der < gö-z+ler
<b>sd &lt; sl assimilation</b>	libas+dar < libas+lar
<b>çd &lt; çl assimilation</b>	saç+dar < saç+lar

There are also some similarities with the findings of our study in this table as in the changes because of assimilation. As there are numerous words and a possibility for

assimilation, it is possible to encounter similarities and differences in terms of assimilation based on each region.

### Characteristic Changes in the Dialect of Eflani through the Regressive Assimilation

Regressive assimilation is another assimilation type that we have come across in our study. This occurs when the first sound in the word assimilates the following sound partially or completely in terms of its articulation. For instance, the /r/ sound turns into /l/ sound because of the regressive assimilation.

/rl/ > /ll/ assimilation: /rl/ turns into /ll/. e.g. *tarlada* → *tallada* (in the field')

/cz/ > /zz/ assimilation: /cz/ turns into /zz/. e.g. *eczane* → *ezzane* (pharmacy)

/zs/ > /ss/ assimilation: especially if there comes the suffix /s/ sound just after the present simple negative suffix *-maz*, the /z/ sound turns into the sound /s/. /zs/ turns into /ss/, such as *kaynamazsa* → *kaynamassa* (which means 'does not boil'). It is observed in the study that some students also say *gaynamassa* instead of *kaynamassa*.

/hç/ > /çç/ assimilation: /hç/ turns into /çç/. e.g. *bahçede* → *baççede* (in the garden)

/ht/ > /tt/ assimilation: /ht/ turns into /tt/. e.g. *ihtiyacın* → *ittiyacın* (need)

/nş/ > /şş/ assimilation: /nş/ turns into /şş/. e.g. *inşallah* → *işşallah* (If Allah wills)

/rm/ > /mm/ assimilation: /rm/ turns into /mm/. e.g. *vermediler* → *vemmediler* (did not give)

/şç/ > /çç/ assimilation: /şç/ turns into /çç/. e.g. *başçavuş* → *baççavuş* (master sergeant).

/lz/ > /zz/ assimilation: /lz/ turns into /zz/. e.g. *malzeme* → *mazzeme* (equipment)

/ts/ > /ss/ assimilation: /ts/ turns into /ss/. e.g. *yatsı* → *yassı* (night)

/hk/ > /kk/ assimilation: /hk/ turns into /kk/. e.g. *mahkeme* → *makkeme* (court)

As seen in the examples above, progressive and regressive assimilation are used widely in the dialect of school students belonging to Eflani county of KARABUK.

### 4. Conclusion, Discussion, and Suggestions

This study adopted an exploratory qualitative approach to identify types of assimilation among school students at Eflani (Karabuk city) in Turkey. The study included 11 female school students. The findings showed that students who belong to the neighboring villages of Eflani use regressive assimilation more compared with other types of assimilation. Two assimilation types have been observed in examples during conversations. These are progressive and regressive assimilation. The number

of regressive assimilation used by the students is much more than the progressive assimilation. It can be said that female students tend to use regressive assimilation more. With the effect of widespread-instant communication and other factors influencing the way of life, the dialects used by the society are becoming more similar to the standard Turkish. Actually, the spoken variety differs from the written variety of a language in many ways. There are many differences between them, especially in terms of vowel-consonant, consonant-consonant, usage and structure. For instance, Iğdır dialect also shows similarities and differences with the standard Turkish (Kotan, 2017). More specifically, dialects are a rich source of languages as they reflect the customs and traditions. Nonetheless, since the suburban dialects are not the dominant dialects in Shanghai, people tend to hide their suburban accents. As a result, the inferiority complex of suburban people means that their dialects are at greater risk of dying compared to dialects in downtown areas (Jia, 2011). The data we have obtained showed that the closer is to the city center where the students live, the more their dialects are affected. Besides, at the center of Eflani, most of the students speak similarly to the standard Turkish. Therefore, it is vulnerable to be extinct. That is why having such kinds of studies by analyzing the Turkish language linguistically in detail will be beneficial before the dialects disappear completely. The dialect of Eflani shows similarities and differences with the standard Turkish. It also has similarities with the dialects used by people in the eastern region of Turkey. Such findings could help learners of the Turkish language for both academic as well as social purposes. However, since this study is limited to only 11 female students, including more participants and conducting a similar study on other remote regions in Turkey could enrich the issue of assimilation in the Turkish language.

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