

Rural and urban dialects in contact in Jordan: the case of [tʃ] de-affrication in  
the rural dialect of Irbid suburbs

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## **Abstract**

*This thesis investigated the effect of phonological and social factors (age, education, word style and phonological environment) on the variation patterns of [tʃ] variant for 24 speakers of rural Jordanian Arabic in suburban Irbid. The findings from the recordings of the participants, which revealed a strong positive tendency toward the use of the marked variant [tʃ] which is an allophone of /k/, were attributed to the largely positive attitudes of the rural speakers toward their dialect as the questionnaire distributed to them demonstrated. The results did not reveal significant variation among the three different age groups (youth, middle-age, and elderly) or education levels (educated and uneducated) though style was slightly significant as the speakers tended to use the supralocal form [k] in favor of the localized variant [tʃ] in naming pictures test versus spontaneous speech or dialogue. Though there was no strong statistical interaction between the independent variables mentioned above, the findings of the study are indicative of the leveling process that was expected to occur in the marked variant of the rural local dialect in Jordan because of dialect contact with the supralocal urban variety. Despite the accelerated socioeconomic changes that have arisen in Jordan in the last few decades, it seems these changes had little impact on the rural speakers in the suburbs of major cities in Jordan.*

## Chapter One

### 1.1 Introduction

This thesis investigates and analyzes accent leveling in a rural Jordanian Arabic dialect in the suburbs of Irbid City, Jordan. Specifically, it examines sociolinguistic variation and change in the use of the [tʃ] variant of /k/ among rural speakers in the suburbs of Irbid. The variation among different age groups and education levels of the rural speakers is investigated with regard to [tʃ] production and if the localized variant [tʃ] is being leveled by the supralocal urban variant [k]. Consequently, the phonological environment of the [tʃ] variant will be analyzed to identify a possible correlation between the occurrence of the affricated variant and both the linguistic and social factors. The urban variant of the phoneme /k/ in Irbid city is only [k], whereas the rural dialect has both [k] and [tʃ] where only [tʃ] could occur in a complementary distribution with the standard allophone [k] in the rural speech (Alkhateeb, 1988; Al-Masaeed, 2012; Abushihab, 2015). In other words, the allophone [k] could replace the variant [tʃ] in the rural dialect though the opposite does not occur.

With regard to leveling in speech communities, there are some issues in dialect contact that have to be considered when analyzing this phenomenon (Torgersen & Kerswill, 2004). These issues as for Torgersen & Kerswill (2004) refer to three main concepts that could affect dialect contact, they are: (1) *Geographical diffusion*: when linguistic features spread out from an economically and culturally dominant center. It has been noted that nearby towns and cities are more likely to adopt the features before the rural areas existent in between (Kerswill, 2003; Watson, 2006). (2) *Leveling* which is defined as the process that occurs due to dialect contact by which linguistic variants of a certain dialect become more widespread over a period of time at the expense of localized variants of another dialect (Kerswill, 1996; Britain, 2010). For instance, Watson (2006) points out that this process could involve

the reduction of marked variants in the local variety. (3) *Extralinguistic factors*: these factors include socio-political and economic factors in addition to socio-psychological factors especially identities and attitudes (Torgersen & Kerswill, 2004). In my study, I explore these three issues with reference to the rural dialect and the urban variety in the suburbs of Irbid. It was found by several studies that leveling process, which could spread through geographical diffusion, is almost affected by extralinguistic factors (Britain, 1997; Kerswill, 2003; Kerswill & Williams, 2005); therefore, the three issues Torgersen & Kerswill (2004) mentioned are interrelated and work together.

As a fair number of studies investigated or referred to the de-affrication process of [tʃ] in some Arabic dialects (Al-wer, 2000; Al-Essa, 2009; Al-Masaeed, 2012; Geenberg, 2012; Al Rojaie, 2013; Al rababah, Unpublished article), this phonological phenomenon was reported as variable even among the dialects that produce this voiceless affricate (Mustafawi, 2007; Al Rojaie, 2013). In other words, the phoneme /k/ could be realized as an affricate in some lexical items in one dialect while the same lexical items are not all affricated in another dialect. In addition to this, the attitude toward the affricate [tʃ] ranged from highly stigmatized by the speakers of Cairen Arabic (Geenberg, 2012) to partial stigmatization by some age groups or gender as in Najdi Arabic (Al Rojaie, 2013). As a result, the degree of stigmatization is expected to be in proportional impact to the amount of leveling. The same allophone [tʃ] which was completely leveled in Salt City in Jordan (Al-wer, 2000) is still widely used in other parts of the country (Al-Masaeed, 2012). Thus, affrication of /k/ is distinctive in each Arabic dialect in terms of the affected lexical items and the social attitudes toward this marked variant.



## Chapter two

### 2.1 Literature review and background

Trudgill (1986) referred to the dialectal impact that could occur due to contact between two or more mutually intelligible dialects. He claimed that this contact could lead to the prevalence of variants in one dialect at the expense of other variants. Leveling refers to the linguistic processes that occur due to dialect contact within a speech community, by which linguistic variants of a specific dialect (the supralocal one) become more widespread over a period of time at the expense of more marked or localized variants in the localized dialect (Kerswill, 1996; William & Kerswill, 1999; Kerswill & Williams, 2005; Britain, 2010). As a result of dialect contact, some linguistic features that distinguish the dialects in contact from each other will normally start to decrease or even disappear due to the effect of the dominance of supralocal variants (Kerswill, 1996; Kerswill, 2003; Britain, 2010).

Following Trudgill's work *Dialect in Contact* (1986), many sociolinguists investigated leveling processes within speech communities in the United Kingdom, and more broadly in other speech communities in the world. Britain (1997) examines the effect of dialect contact on leveling of some linguistic features in Fennish English. He noticed that certain marked features of the immigrant varieties (considered as localized dialects) have leveled out due to dialect contact with the supralocal dialect. Clark & Watson (2016) explored phonological leveling of the variants of /t/ in Liverpool dialect and two other localities in its hinterland as well. They found that Liverpool accent is still retaining the lenited variants [tθ, θ] which are not affected by the supralocal glottal stop [ʔ]. However, they found that a nearby town demonstrated lenition of /t/ which was simplified as [h], this typical leveling was boosted by geographical *diffusion* rather than *transmission* (which are the two major ways through which dialect leveling could occur). Thus, they found that the local variants [tθ, θ, h] were not declining and replaced by the supralocal glottal variant [ʔ]. Anderson (2002) claimed that English-speakers from Detroit,

Michigan generally monophthongize the diphthong /aɪ/ in pre-voiced phonetic contexts as in *tide*. He also found that the monophthongization phenomenon is spreading to pre-voiceless environments as in *tight*. This phenomenon has been attributed to dialect contact with southern states where monophthongization of /aɪ/ diphthong occurs in both phonological environments. In addition, Anderson (2002) reported that monophthongization of the diphthong /aɪ/ has been leveled to the monophthong /i:/ in African American English in Detroit due to dialect contact with the southern states. Thus, dialect contact between two dialects or more may or may not lead to leveling of marked features of a localized dialect depending on linguistic and social factors of the dialects under study. The pre-mentioned studies have shown that the supralocal dialect may or may not affect the localized variety when they are in contact.

Lexical variation, as well as the phonological, could be a conditioning environment for the occurrence or shift of a certain linguistic feature. Watson (2006), for instance, found that the conditioning environments that govern the divergence of 't→h' in Liverpool accent could be sometimes lexical rather than phonological. He adds that lexical items in which 't→h' occurs in Liverpool English are function words containing short vowels. Consequently, he states that the shift could also be phonological, as almost all the words that witnessed this divergence have unstressed final syllables in which the final /t/ is preceded by a weak vowel.

Although the leveling of linguistic variants in speech communities is driven and triggered by dialect contact, there are certain social factors that play an effective role in enhancing or else hindering the leveling process within a speech community (Miller, 2005). In other words, the influence of these factors like gender, age, and level of education, etc. on leveling is highly prominent in communities that have witnessed significant urbanization and modernization, i.e. the level and amount of contact within a modernized community could be more effective due to these factors (Kerswill, 1996; Britain, 2010). Urbanization

and modernization processes are predicted to boost the fluidity of dialect contact, migration, and social mobility within a country or speech community. This makes dialect contact broader and more active. Sociolinguistic factors are predicted to play an effective role in linguistic variation and change besides dialect leveling which is typically transmitted by one and/ or two of following major factors: *transmission* and *diffusion* (Labov, 2007).

First, dialect *transmission* over generations in the same speech community almost results in a linguistic change for the new generations which could be different from the heritage language of their parents. The offspring generation produces a dialect which is different from their parents and predecessors. Transmission might occur as a form of *change from below* which occurs within the system or *change from above* by importing elements from other language systems (Labov, 2007). As parents transmit their native dialect to their children, certain linguistic features could be changed leading to the creation of new linguistic features (Al-wer, 2007). Secondly, contact between speech communities could lead to linguistic change by *diffusion* where some linguistic features transfer throughout the branches of the speech communities (Labov, 2007). As for the speech community of this study, I estimate that the phonological leveling of the [tʃ] variant, whether it occurs in Irbid suburbs as hypothesized, spreads most likely by diffusion although transmission is also expected. Transmission supports the leveling process due to the predicted stigmatization view of the rural speakers toward this variant as claimed by (Hussein & El-Ali, 1989). In a nearby linguistic environment in Cairo City, Egypt, for instance, Geenberg (2012) claims that the voiceless postalveolar [tʃ] variant of /k/ in Cairen Arabic is considered by both men and women as a highly stigmatized variant. This variant is associated with poorer and less educated speakers. Additionally, Al Rojaie (2013) points out that the same postalveolar allophone is less favored among the speakers of Najdi Arabic in Saudi Arabia which is avoided mainly by women. In summary, sociolinguists

argue that dialect contact is the main driving force behind linguistic changes which are driven by social factors within a speech community (Trudgill, 1989; Kerswill, 1996; Britain, 2010; Al Rojaie, 2013). Negative attitudes toward certain marked features of a localized variety, or the variety itself, could encourage the leveling process to occur (Britain, 1997).

With regard to the effect of social factors on leveling and phonological variation, people of different ages, genders, and social classes were found to be affected differently. Fischer (1958) found that the participants in his study opted for either the *-ing* or the *-in* variants differently depending on their sex, social class, personality, and mood. Milroy *et al.* (1994) noticed that modern Tyneside English young speakers prefer to use the supralocal variant for the FACE lexical set which is the variant used by northern English speakers as opposed to the local variant. Conversely, adult speakers in Tyneside still maintain their traditional /ɪə/ variant. The older participants showed more loyalty to the native dialect, whereas the younger speakers preferred the use of the supralocal form of FACE in the speech community. Discrepancies in the amount of dialect contact, as well as the social variables and backgrounds, could also lead to different variations of leveling (Britain, 2010). For instance, male speakers normally maintain the variants of their heritage dialect for a longer time than women, it seems that females' dialect starts to be leveled faster and more easily (Kerswill, 1996). Women are the first members of a speech community predicted to start linguistic change toward supralocal forms. They are more likely to use the variants of the prestigious dialect forms than men (Abd-Eljawad, 1987). Abd-Eljawad (1987) points out that rural women in the Jordanian speech community tend to produce the urban linguistic variants as they are considered more prestigious in their community than their localized rural forms. In support of this, Britain (2010) also claims that the dominance of supralocal forms appears more obvious among women rather than men as they are exposed to more linguistic change than men. Therefore, it has been proposed that women normally lead the leveling process

toward dialect change within speech communities. Furthermore, the age of a speaker has an effect and is important in the process of leveling and linguistic change (Britain, 2010). Elderly speakers almost show amounts of leveling that are different or distinguished from their younger counterparts in the same speech community. Al-Essa (2009), for instance, found that younger age groups in Najdi Arabic dialect tend to use the supralocal variant /k/ in favor of [tʃ] more frequently than older age groups. Furthermore, Al-Masaeed (2012) claimed that young rural speakers in Irbid prefer the use of the supralocal variant [k] instead of the localized variant [tʃ] during their speech, whereas the older speakers showed a higher percentage of using the localized variant [tʃ] in their speech. With reference to Al-Masaeed (2012) who investigated the effect of the urban variant [k] on the rural dialect within the supralocal environment (i.e. Irbid), I am investigating this effect in the suburbs of Irbid where the speakers there speak only the rural dialect though they are in contact with the urban variety of the city. Moreover, I am investigating the effect of different levels of education as well as the phonological environment in which the localized variant [tʃ] occur in the rural dialect. Thus, results are predicted to be variational among different social factors and the leveling phenomenon may or may not occur in the community of focus.

The outcomes of dialect contact are phonologically variable; an extensive dialect contact between two dialects or more could lead at the end to *koineization* or the production of a newly-created dialect/koine (Siegel, 1985). Kerswill (1996) explores leveling and koineization and stated that koineization is a new dialect formation phenomenon that is the result of accelerated dialect leveling. In his book *Dialects in Contact*, Trudgill (1986) claimed that dialect contact could result in “koineization” producing what he calls “new dialect formation” in which leveling and simplification play a major role. A new dialect could be created because of contact between speakers of distinctive though intelligible dialects in a newly virgin area. The inhabitants of Milton Keynes City in the United Kingdom, who come from diverse dialects were predicted to

show “new town koine” after one or two generations, the newly-created dialect (expected to be) is the ultimate outcome of different dialects in contact in a linguistically virgin speech community (Kerswill & Williams, 2005). Thus, leveling of several linguistic aspects in a localized dialect could lead to the creation of a new dialect which will be different from the original dialect.

The influence of dialect contact situations on leveling varies depending on the size and intensity of contact between the dialects in that area, however, other nonlinguistic factors may also have their effect (Kerswill, 1996; Britain, 2010). In other words, the magnitude of influence of a supralocal dialect is in direct proportion to the degree of dialect contact. Moreover, there are other factors that could increase the degree of contact between dialects. Kerswill (1996) claimed that the degree of contact, mobility, and social fluidity between dialects in a region will generally lead to the creation of new linguistic forms that are likely shared by speakers in the region. Furthermore, Britain (2010) points out that the majority variants in the contact community will commonly prevail over other variants because of dialect contact. Therefore, the closer the contact between speakers of two dialects to each other, the stronger the influence of one dialect (*the supralocal*) over the other (*the localized*) will be. Britain (2010), adds that the communities which are highly mobile and fluid will expectedly avail the spread of some linguistic variants of a dialect at the expense of another. In the case of the suburban Irbid, from where the data was collected, many rural citizens commute every day to the city as students, employees, and workers. There are many villagers who have recently moved their residence to the city itself within the last few decades (Shbaikat, 2006; Irbid Governorate, 2017). Thus, they are in direct contact with the *supralocal* urban dialect where their rural *localized* dialect is predicted to be affected. Speakers who occasionally visit their home villages are expected to be effective transmitters of the urban dialect variants to their relatives in the suburbs. However, spaces between regions are not measured by clear-cut distances. Britain (2010) states that regions are not predefined by bounded spaces though they are more

formed by social practice and features. In other words, their boundaries are liable to change depending on their contact boundaries regardless of the distance. Moreover, space or distance between dialects in a region is perceived as a social and physical space simultaneously, where some regions might be far in distance from each other, but they are close in social contact via social networks or social gatherings as in markets or meetings in public institutions.

### 2.1.1 Why does leveling occur?

Linguistic accommodation occurs due to interactions between speech communities that last for a long period of time (Fischer, 1958). Therefore, because of frequent daily contact between two dialects or more, a state of dialect stabilization will arise (Britain, 1997). However, leveling is a process during which marked local dialect forms start to reduce in frequency and be substituted by more widely supralocal forms (Yaseen, 2015). As spatial practices in the world have changed due to increasing urbanization, many people nowadays move from rural areas to the city for economic and personal purposes very easily. Internal migration within the country has also increased the number of people attending universities, using public and private transportation, the expansion in the uptake of a higher level of education, and shifting the place of residence for employment and work. Thus, leveling of marked features in a localized dialect could occur due to dialect contact with a supralocal dialect (Kerswill, 1996; Britain, 1997). Negative attitudes toward a localized dialect will boost leveling process of its marked variants and features (Britain, 2010).

### 2.1.2 Leveling in the Arab World

Regarding the linguistic situation in the Arab World, Yaseen (2015) explores the effect of dialect contact on the disappearance/leveling of some phonological features in the Mosul dialect in Iraq. In his empirical study, he points out that some Arabic speakers of Mosul tend to use the word /gilit/ (the past form of say) as a supralocal variant instead of the localized variant /geltu/ (the past

form of say). He concludes that some traditional local dialects of Arabic in Iraq are losing ground to dominant supralocal varieties because of dialect contact with the supralocal variety in Mosul. I predict a similar situation in Irbid as a result of dialect contact between the localized rural dialect and the supralocal urban variety in the suburbs of Irbid.

With regard to the social status of the rural and urban dialects, Al-Rojaie (2013) claims that Arabic dialects spoken in the major cities of the Arab world, as it is the case of Irbid, are considered supralocal or national standards by several Arab sociolinguists when they are compared to local dialects of the suburbs. Thus, I estimate that the contact between the rural (*localized*) dialect and the urban (*supralocal*) variety in Irbid is expected to affect the rural dialect as it is considered a low variety in the country by the Jordanian populace (Hussein & El-Ali, 1989). Such an effect is defined as *geographical diffusion* where a supralocal dialect in an overpopulated region affects the linguistic features of the surrounding local dialects/dialect (Britain, 2002). However, the attitudes of the localized dialect speakers toward the rural dialect itself should be negative for leveling to occur. Al Rojaie (2013) points out that extralinguistic factors including social and psychological aspects could lead the speakers of a localized dialect to avoid the use of its stigmatized and marked forms. In this case, the linguistic features expected to be leveled are almost the marked features of the localized dialect (Kerswill, 1996; Britain, 2010). The voiceless postalveolar [tʃ], which is expected to be a salient and distinguishing linguistic feature of the rural dialect, could be considered by the Jordanian Arabic speakers as a marked feature of the rural dialect (Al-wer, 2000; Al-Masaeed, 2012; Al-wer & Uri, 2017). Thus, I predict this variant to be leveled first in case leveling is occurring and that is why I chose it in my study.

As for the social factors effect on leveling in the Arab World, Al Rojaie (2013) investigates the roles of age, gender, and the level of education on the affricated or deaffricated variant of /k/ in Al-Qasimi Arabic dialect in Saudi Arabia. In



his findings, he reports that older less-educated speakers tend to maintain the use of the local variant [tʃ], whereas younger more educated speakers prefer to use the supralocal variant [k]. Furthermore, he points out that the socioeconomic change, which the Saudi Arabia Kingdom has witnessed lately, has led to more extensive dialect contact between the localized and supralocal dialects in the country. This heavy and extensive dialect contact among Saudi Arabian dialects boosted the use of the supralocal variant [k] at the expense of the localized variant [tʃ]. Moreover, Al Rojaie (2013) claims that recent social changes in the Arab world brought on by urbanization and immigration have lately had a significant impact on dialect contact in most Arab countries. This contact has encouraged the leveling of some linguistic features in some localized dialects. Regarding the rural Jordanian Arabic, Al-Masaeed (2012) points out that there are some active social factors that have recently affected the use of [tʃ] variant in the northern region of Jordan especially among younger speakers, but he does not refer to or mention these factors in his study. However, Irbid witnessed during the past century two huge immigration events where large numbers of Palestinians were forced to leave their country toward Jordan. The new immigrants are predicted to have a linguistic influence on the Jordanian dialect spoken in the suburbs of Irbid as the variety spoken where they have settled is considered the supralocal.

Affrication of /k/ as a phonological feature is salient and common in several Arabic dialects mainly in the Arabian Gulf countries and Yemen (Al Rojaie, 2013). Al-Essa (2009) points out that the affrication of /k/ in Arabic was discussed by early Arab linguists like Sibawaih and Ibn Jinni more than a thousand years ago where this phonological phenomenon was referred to as *Kashkashah* at that time. *Kashkashah*, which is considered stigmatized in many Arabic speech communities (Mustafawi, 2007; Al-Essa, 2009; Al-Masaeed, 2012; Al Rojaie, 2013), occurs when the voiceless velar /k/ is realized replaced as the voiceless postalveolar [tʃ] occasionally (Watson, 1994). This indicates that the affrication of /k/ in Arabic dialects is not a recent

phonological process, although the allophone [tʃ] is not a common speech existent sound in Classical Arabic or Modern Standard Arabic (Ahmed, Mohammed, Darweesh, & Abedullah, 2008). However, Holes as cited in (Al-Essa, 2009), claims that the phenomenon of affrication of both Arabic phonemes /k/ and /g/ to [tʃ] and [dʒ] respectively in some Saudi Arabic dialects is proposedly the end state of a very long process in fronting of these speech sounds. From the data obtained in her study, Al-Essa (2009) claims that the affrication of /k/ by Najdi speakers living in Hijaz (Hijaz and Najd are two large regions in Saudi Arabia) was almost obsolete though [tʃ] form does exist in the Hijazi dialect. As a slow process of [tʃ] leveling, only the middle-aged and older speakers in Hijaz were found to realize [tʃ] variant with extremely low rates of use (Al-Essa, 2009). The effect of age was demonstrated to be significant in this study as the younger speakers opted for [k] in favor of [tʃ].

With reference to Trudgill (1986), Al-Essa (2009) claims that the absence of [tʃ] among Najdi speakers in this speech community is attributed mainly to the increasing awareness of this stigmatized form as it is a salient and marked feature in the localized dialect. Moreover, she points out that the more extensive the level of contact for the investigated group of the participants in the study; the less they used the stigmatized [tʃ] variant in their speech communications.

As for *kashkashah* (affrication) in Jordan, Al-wer (2000) claims that the affrication of [k] to [tʃ] is a marked and distinguishing feature of the rural Jordanian Arabic dialect and it is not a linguistic feature of the urban variety. Anecdotal evidence suggests that the [tʃ] variant of /k/ is a salient feature that distinguishes the rural dialect of suburban Irbid from the urban dialects of the city (Al-wer, 2000). Al-wer (2000) adds that there are some rural speakers, especially the new generations and the higher educated populace, who try to avoid the use of [tʃ] in favor of the urban more prestigious velar [k]. On the other hand, Al-Masaeed (2012), claimed that the [tʃ] variant is a prevalent and

distinguishing sound in the northern region of Jordan as well as some areas of southern Syria. Furthermore, he points out that the northern region of Jordan includes mainly the following main big cities: Irbid, Jarash, Ajloun, and Mafraq; where the rural speakers of these four governorates produce the variant [tʃ] conditionally in certain phonological environments instead of the variant [k]. The variant [k] is the urban form in these environments although it is used by rural speakers themselves in other phonological environments. This thesis, however, examines the phonological environment required for the occurrence of [tʃ] in the rural dialect of Irbid suburbs. Both Al-wer (2000) investigating the affrication of /k/ in Sult City in Jordan, and Al Rojaie (2013) exploring the same phenomenon in Qasim region of Saudi Arabia, claim that the affrication of /k/ does conditionally occur with front vowels in some few words in the Arabic dialects that were under study. Though the affrication of /k/ has been completely leveled in Sult due to dialect contact with other varieties (Al-wer, 2000), it is still a distinguishing marked feature of the rural dialect in Irbid suburbs (Al-Masaeed, 2012). Thus, previous studies attributed the occurrence of [tʃ] variant in some Arabic dialects mainly in the vicinity of front vowels. These studies did not identify the most likely attributed vowels in the occurrence of the [tʃ] variant. In addition, they did not distinguish between effects of preceding and following vowels on the occurrence of the [tʃ] variant. Claiming that the occurrence of [tʃ] variant in some spoken Arabic dialects is confined only by front vowels (Al-wer, 2000; Al Rojaie, 2013) defies that this variant could be preceded or followed exactly by a consonant in a consonant cluster.

As a result of dialect contact between the rural and urban dialects in Irbid, it is expected that some phonological and other linguistic features of the local dialect are affected. However, more than phonological leveling of some variants due to dialect contact could occur as well. Al-wer (2000) claims that dialect contact in Jordan can lead to the emergence of new linguistic features or a new combination of features that are not present in the original dialects in contact.

The linguistic situation in Amman, the capital city of Jordan, could be a good example of koineization in Arabic. Al-wer (2000), for instance, states that the younger speakers in Amman are not inheriting the linguistic features of their parents as is almost expected for new generations in linguistic environments; in contrast, they are creating their own new dialect which is heavily affected and shaped by a set of internal, external, and extra-linguistic factors that are working together and creating the new urban dialect of Amman. Thus, she points out that the third-generation children in Amman are using a koine which is different from their parents' and ancestors' variety. She claimed that this koine is the ultimate product of the mixture of different dialects together.

Al-Wer (2007) explains that dialect in contact situations could result in one of the following three different variable linguistic developments. First, certain linguistic variants, which are considered distinctive linguistic features of a dialect, could sometimes spread at the expense of other features in the other dialect. In this case, some linguistic variants of the local variety will be leveled and replaced by the supralocal forms. I expect this situation to occur in the rural dialect of Irbid City though such a claim will need further investigation of the other phonological variants which could be subjects for further research. Conversely, an intermediate dialect could appear in other situations because of the dissolving of some linguistic features that distinguish both dialects. The third possibility could be the appearance of new features that do not exist in either dialects. These new features will lead to the creation of a new dialect with new linguistic features that were not present as in the case of the new dialect in Amman, Jordan.

In summary, the ultimate result of dialect contact between two dialects may be the birth of a new dialect where socially marked linguistic features are largely leveled and a new different koine is created (Siegel, 1985; Al-wer, 2000). Otherwise, the loss of some prominent linguistic features in the local dialect could occur which could be because of the supralocal variety in the speech

community. The proportional leveling of the [tʃ] variant in Al-Qasim dialect is a good example where the supralocal variant [k] took over the localized [tʃ] (Al Rojaie, 2013). In the case of Irbid dialects, and depending on previous research results which reported the leveling of the same variant in other speech communities in the Arab World, I expect to find that speakers of the rural dialect to a certain extent are replacing the voiceless postalveolar variant [tʃ] with the urban velar allophone [k]. However, a new spoken dialect in Irbid City might be created or else some of the most prominent linguistic features of the localized dialect will be eradicated in favor of the urban ones. Rural speakers may choose to maintain their dialect if they have strong positive social attitudes toward their own dialect.

### 2.1.3 Significance of the study

The study investigates the effect of dialect contact between the urban Arabic dialect in Irbid, Jordan and the rural variety which is spoken in the suburbs of the same city. Although previous research studies investigated and compared both dialects in terms of phonological variations and level of prestige (Abd-Eljawad, 1987; Sakarnah, 2005; Abushihab, 2015; Omari & Herk, 2016), this thesis focuses exclusively on one phonological variant of a potential leveling phenomenon which is expected to be taking place; the urban variant [k] is expected to be favored by rural speakers in phonological positions where the voiceless postalveolar affricate [tʃ] is normally used. Thus, the localized allophone [tʃ] is expected to be disappearing due to dialect contact or undergo a leveling process. This study sheds light only on this potentially occurring leveling process in Irbid. The study also investigates the phonological and social factors that may affect the use of this rural variant. Although previous sociolinguistic studies investigated the leveling of the same variant in other speech communities in the Arab World (Mustafawi, 2007; Al-Masaeed, 2012; Al Rojaie, 2013; Al-wer & Uri, 2017), the picture yielded from the literature discussed above points out that the linguistic situations is mixed and varied among all the Arabic dialects.

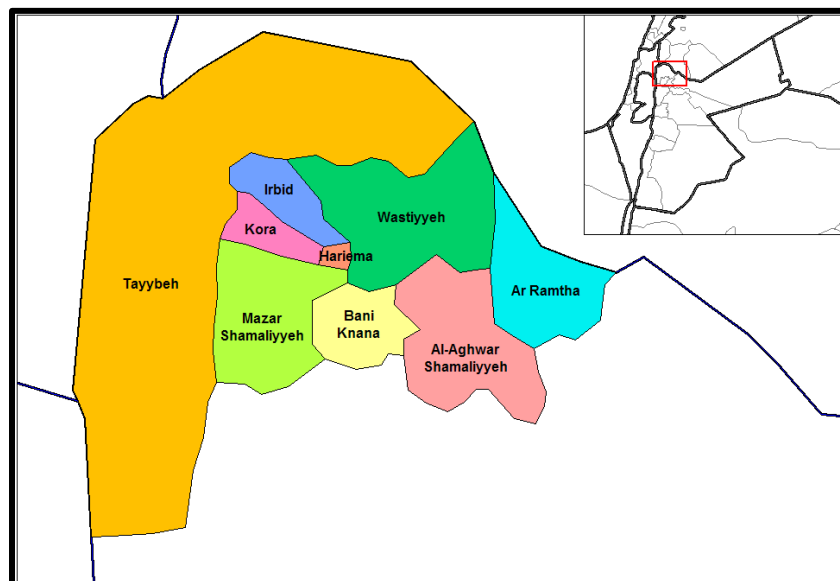
## 2.2 **Hypotheses of the study**

Dialect contact in most speech communities could encourage linguistic change and a shift toward the use of unmarked features (Trudgill, 1986; Britain, 1997). Leveling is one of the most consistent linguistic consequences that occur when dialects come into contact (Kerswill, 2003; Britain, 2010). My first hypothesis is that the phonological variant [tʃ], an allophone of /k/ and a marked feature in the rural variety in Irbid suburbs (Al-Masaeed, 2012), is undergoing a process of leveling due to dialect contact with the urban variety which realizes the variant [k] in all phonological contexts. Second, I expect to see that the de-affrication phenomenon in the rural community is more salient and frequent among more educated speakers than less educated speakers. This is because the more educated speakers have a more extensive dialect contact level with the urban community which presumably entails a higher level of the urban influence, so they are expected to avoid the use of the affricate variant as it might be considered stigmatized by speakers of other dialects. Third, I predict the age differences between different age groups to play a significant role in leveling as it is evident in previous research studies. I hypothesize the younger speakers to exhibit more leveling of the marked variant in their dialect. Whereas the elderly group is expected to exhibit the least amount of leveling as they are expected to be with less contact with the supralocal variety than the other generations. Fourth, I presume that there must be a phonological reason that explains the affrication phenomenon of some lexical items in the rural dialect in Irbid suburbs. Thus, the production of the participants will be analyzed to identify the phonological reason behind the affrication of /k/ in certain linguistic environments and not in others.

## 2.3 **The city of Irbid and the establishment of Jordan**

Geographically, Irbid city lies in the northern sector of Jordan approximately 80 kilometers from Amman (the capital city of Jordan); moreover, it is near the southern borders of Syria and is known as the second largest city in Jordan after Amman. With regard to the population, the city itself is inhabited by

almost one million Jordanians who originally descend from diverse Palestinian or indigenous Jordanian origins. Thus, the urban dialect spoken in the city resulted from a mixture of both the 19<sup>th</sup> century Palestinian immigrants and the original Jordanian inhabitants living in the same area. Conversely, the suburbs surrounding the city speak a different variety which can be easily distinguished from the dialect spoken in the city (Al-Masaeed, 2012). However, the nine major suburbs around the city, which include tens of small towns, have started in the last few decades to be more mobile and fluid in terms of dialect contact with the speakers of the urban dialect in Irbid (Al-Masaeed, 2012). As the lifestyle has changed dramatically during the past few decades in Jordan where more infrastructure has been constructed between Irbid City and its suburbs, and new government institutions like universities or public institutions were initiated in the City of Irbid, dialect contact became more fluid and flexible between the varieties in the city and its suburbs due to daily transportation and contact among the Jordanian populace (Shbaikat, 2006; Irbid Governorate, 2017).



**Figure ( 1 ):** A map of Irbid city and suburbs, Jordan. (Rarelibra, 2006)

#### 2.4 **The linguistic environment of Arabic language in Jordan**

Although there are no descriptions available for the dialects spoken in Jordan (Al-wer, 2000), Jordanian Arabic was divided by Arab sociolinguists into three main spoken dialects (Abd-Eljawad, 1987; Alkhateeb, 1988; Al-Sughayer, 1990; Sakarnah, 2005). The three main dialects in Jordan were classified on a basis of social and economic diversities in the country in addition to geographical boundaries. Jordanian Arabic dialects include: the rural dialect which spreads in the villages and suburbs of the main cities in Jordan; the Bedouin dialect in the southern and eastern regions of Jordan; and the urban dialect which is the dialect spoken in the main cities like Irbid and Amman (Abd-Eljawad, 1987). All the Jordanian dialects, like other modern Arabic dialects, descend from Classical Arabic (CA) – the language of literature and the noble Quran (Oxford Dictionary, 2018). However, CA is no longer spoken natively nowadays although Modern Standard Arabic (MSA) – the modernized version of CA – is written and taught in schools and universities and delivered in official and academic media programs (Abushihab, 2015; Alotaibi & Muhammad, 2010). This variety, which is used all over the Arab World is claimed to be used in formal environments and academic institutions like in education, cultural talks, official institutions, courts, parliament, etc. (Al-Sughayer, 1990; Omari & Herk, 2016). Abd-Eljawad (1987) states that MSA is the fourth distinct Arabic dialect in Jordan in addition to the three mentioned dialects. However, there are major differences between MSA and the other vernacular Arabic varieties spoken in Jordan in terms of phonology, morphology, lexis, and syntax (Fadi, Julia, & Nizar, 2009). In other words, regional dialects in Jordan are no more than vernacular spoken varieties as they are not used in formal communications or taught at schools or universities. This excludes MSA which is not a regional dialect (Zaidan & Burch, 2014).

In the past few decades, Irbid witnessed an extensive demographic change due to the Palestinian migration to Jordan after the Arab-Israeli wars in 1948 and



1967 (Shbaikat, 2006). Thus, this transformation resulted in dialect contact among different dialects that were spoken in the city. Urbanization is one of the main factors that normally leads to dialect contact (Britain, 2010), and encourages rural inhabitants in the villages to move to the city to study at the newly-built universities, to work in governmental and private sector jobs, and to live in a modernized city like Irbid where the main infrastructure facilities are provided and are easily accessible. Broadly speaking, the spoken urban dialect in Irbid is a mixture of different Jordanian Arabic dialects that originally descend from several Palestinian and Jordanian origins. The dominant dialect spoken in the city, which is considered urban, was a culmination of those dialects when they came in contact. Like other major cities in Jordan, Irbid constitutes of approximately 1.5 million people and it is a suitable area for dialect contact to occur between rural speakers who come from the suburbs and urban inhabitants of the city itself (Al-Masaeed, 2012).

Researchers who investigated urban and rural Jordanian dialects focused mainly on the phonological variations between them (Cleveland, 1963; Abd-Eljawad, 1987; Al-Sughayer, 1990; Abushihab, 2015; Omari & Herk, 2016). As far as I am aware, there has not yet been an extensive study conducted on leveling/ koineization processes in Irbid considering the attitudes of its speakers. The linguistic environment in the city of Irbid is considered diglossic where both the rural and urban dialects spoken in the city are in daily contact (Abushihab, 2015). Furthermore, dialect contact between different Arabic dialects in the past have produced a koine which is the ultimate end of dialect contact prompted by leveling (Ferguson, 1959). The potential outcomes of koineization could be a simplification process (like increasing regular grammars and decreasing formal complexity), leveling, reallocation (the refunctionalization of input variants), and the creation of new interdialect forms (Britain, 1997). Al-wer (2000) states that the urban and rural dialects in Jordan have two different phonetic and phonological systems; therefore, it is expected that the variants of one dialect or both will be exposed to dialect

change or leveling because of dialect contact between them. However, marked features of the localized dialect are predicted to change first (Britain, 1997). The postalveolar allophone [tʃ] of /k/ in the rural dialect of Irbid City is a marked and salient phonological feature of this localized dialect (Hussein & El-Ali, 1989; Al-Masaeed, 2012). Thus, the supralocal urban variant [k] is expected to be replacing the marked localized rural variant [tʃ].

Lately, dialect contact has increased dramatically in the Jordanian community due to several social factors that have affected the local Jordanian Arabic dialects. Therefore, as the Jordanian rural Arabic dialect spoken in the suburbs of Irbid City is considered different from the urban dialect spoken in the city, it is expected that some linguistic features of the localized dialect will be converged or leveled under the effect of the more prestigious urban dialect. Abd-El Jawad (1987) claims that the urban dialect spoken in Jordan is considered the most prestigious dialect by Jordanian Arabic speakers. Therefore, I expect that this supralocal dialect will affect the localized rural dialect in Irbid. The rural Arabic dialect in Irbid is expected to lose its variant [tʃ] in favor of the urban allophone [k] because of this dialect contact. Additionally, Abd-ElJawad (1987) claims that the urban variety in Irbid is considered the most prestigious in Irbid and its suburbs and it is widely used by the majority of Jordanian Arabic speakers. Due to its highly prestigious position, I classify the urban variety as the supralocal dialect which is predicted to have a phonological impact on the localized rural variety.

## 2.5 **Why is leveling likely happening in Irbid?**

As both the rural and urban dialects of Irbid and its suburbs are in a geographically close contact, it is expected that this contact has led to dialectal shift and change among the residents of the city (Abushihab, 2015). Leveling is initiated and enhanced by dialect contact, though there are some nonlinguistic external factors that participate in this process. The main factors that contribute to leveling could apply to the linguistic situation of Irbid and its

suburbs. The main factor as proposed by Britain (2010), which is urbanization, is increasing in Irbid nowadays via the huge migratory movement of the rural populace from the suburbs to the city of Irbid. This is mirrored in the increasing numbers of rural students who attend university from adjacent suburbs and villages and the influx of the employees who come from the villages to the city for their living and work. Thus, dialect contact between the rural Arabic speakers with the urban variety in the city is expected to have its linguistic effects and consequences.

## 2.6 **Questions of the study:**

1. What is the phonological environment in which the variant [tʃ] occurs in the rural dialect?
2. How salient is the use of the voiceless affricated variant [tʃ] into the rural dialect of Irbid City as a distinguishing marked phonological feature of that dialect? And how can leveling of the variant [tʃ] be shown as a phonological phenomenon that is going in the rural dialect as a result of dialect contact with the urban variety?
3. Do the rural speakers in Irbid City replace the voiceless postalveolar affricate [tʃ] which is a rural allophone with the urban supralocal variant? And what is the role of the level of education and age periods on [tʃ] occurrences and use?
4. To what extent do the main social factors and attitudes of the speakers in Irbid City endorse the leveling of the [tʃ] variant if it is occurring?

## **Chapter Three**

### **3.1 Methodology and data collection**

#### **3.1.1 Definition of the variables**

*Dependent variables:* the study aims to analyze the occurrence of two dependent variables in rural speech. They are two allophonic variants of the phoneme /k/ which has [k] allophone as in the Arabic word [X\aki] ‘speech’, and [tʃ] as in [X\atʃi] ‘speech’ in the rural dialect of Irbid suburbs. The first allophone [k] which is expected to be the most frequently used and also the more prestigious of the two is predicted to replace the second variant [tʃ] which could be considered stigmatized by the rural speakers themselves and more likely by other dialect speakers as well.

*Independent variables:* first, the study investigates the phonological environment in which the affricate variant [tʃ] is used by rural speakers although it also investigates the lexical variable as well. Broadly speaking, the phoneme /k/ is expected to be realized as [tʃ] by rural speakers where it is preceded or followed by front vowels in case the variation is phonologically conditioned (Al Rojaie, 2013). On the other hand, the occurrence of [tʃ] may be lexically confined rather than phonologically restricted as it may occur in certain forms of lexical items. Al-Wer and Herin (2011) point out that the occurrence of [q] form in Damascus Arabic as a variant of /q/ is exclusively restricted to certain learned lexical items that descend from MSA or they are just instances of formal speech; otherwise, speakers use the standard form /ʔ/ in all other instances. Consequently, similar results were found in Gaza, Palestine for the same phoneme where the occurrence of [q] was confined to words that are borrowed directly from MSA in formal situations though the regular variant for the phoneme /q/ in Gaza Arabic is always [ʔ] (Haddad & Potsdam, 2016).

Age and the level of education of the participants were considered as the most effective social factors that could affect leveling variations in the rural speech community. Regarding age periods, age groups in this research study are based on generational divisions following other sociolinguists in this field (Alkhateeb, 1988; Al-Essa, 2009). Thus, the participants' ages in the three groups range from 18 up to 55 years old and above where they are divided into three main groups depending on their age. The first group of speakers includes the youngest generation starting from 18 up to 25 years old. The age of the participants' in the second group ranges from 35 to 45, and the eldest group is from 55 years old and above. As for the level of education, on the other hand, the participants were classified as educated if they have a university degree or are studying at university at the time of data collection. Participants with no university degree were classified as uneducated as they have not yet been exposed to tertiary education.

The data were obtained via sociolinguistic interviews with the participants where a research assistant utilized technological appliances and software (Sony digital recorder, and a *hp* laptop) during the guided interviews and questionnaire.

### 3.1.2 Instrument used

Following the method used by Abushihab (2015), and to achieve the objectives of the study by answering the posed questions, I developed an interview schedule that was divided into two main parts which will be followed by a questionnaire. First, the interview section started with open-ended answer questions that require detailed answers from the participants to let them speak freely about themselves. I intended to obtain reasonably reliable data from the participants while they were speaking without any external effects that might intervene or prime their speech. Participants should feel more relaxed while they are speaking without the utilization of any filter or control. Next, the conversations were recorded, gathered and analyzed for data analysis. The

questions that the research assistant asked during the interview revolved around different personal information, general communications, and other cultural aspects in the society as shown in Appendix C. Additionally, a few additional questions were asked during the interview depending on the situation. In summary, data collection was completed through the following two different strategies:

a. Interview:

The data gathered were recorded and collected by a research assistant via sociolinguistic interviews with 24 male rural participants who were born and raised in one of the villages of Irbid. The research assistant was selected as a native speaker of the rural dialect from the same community to avoid priming the participants negatively with another dialect; the rural dialect recorded must be the one rural speakers use for personal communication among themselves. Moreover, the research assistant was trained and directed to avoid the use of words that could take either [k] or [tʃ] variants. These words, listed in appendix A, were given to the research assistant before starting the recording sessions. Consequently, a digital audio recorder (Sony ICD-UX440 Digital Voice Recorder) was used during the conversation to record the interviews with the participants. Each interview lasted for about 15 minutes with a total duration of approximately six hours of recording as there were 24 participants as shown in table (1).

**Table ( 1 ): The distribution of the participants by age periods and level of education**

	<b>Age group ( 1 ) 18 – 25</b>	<b>Age group ( 2 ) 35 – 45</b>	<b>Age group ( 3 ) 55 – 70</b>
<b>Educated</b>	4	4	4
<b>Uneducated</b>	4	4	4

As the study aims to elicit the use of the two variants of /k/ in rural authentic linguistic environments; the interview with the participants was divided into two main parts. In the first part, the research assistant asked the participant direct questions that are expected to trigger the participant to use a certain word intended by the research assistant, this word includes the phoneme /k/ in its realization. More specifically, there are certain questions that I created to trigger the participants to use the words that are expected to be produced with either the [tʃ] or [k] variants, these questions were based on a list of words that were gathered through observations of the rural areas. I gathered these words from the speech community where the rural speakers use [tʃ] rather than [k] with some words. Consultations with linguists from the same rural community helped to compile these words. Additionally, another list of questions was composed depending on a list of words in which rural speakers use only [k] variant which is the norm. Questions were designed to encourage the participants to produce the expected words even though these words were not produced by the interviewer. Both lists appear in the Appendices A and B.

During the interview and after the questions were addressed to the participants, a few pictures of some objects that could contain the [tʃ] variant in their names were shown to the participants where they were asked to name them. The participants were expected to produce either [k] or [tʃ] variant as the names of these pictures refer to objects with possibly a [tʃ] or [k] variant. Participants were expected to show more instances of leveling in the pictures test than in the free questions. Using pictures is expected to prime the participants to use the MSA realization of /k/. Pictures are expected to be closer to the written language which can be only MSA than casual speech which is not scripted in a written form (Parkinson, 1993). I predicted that using pictures will encourage the academic style in the test which allows for

only [k] to be produced. However, I included in the interview some questions or pictures that did not trigger the participants to use either [k] or [tʃ] variants in their speech. The purpose of these questions and pictures is to distract or control the participants and to let them use their language naturally without any purposeful elicitation. Consequently, the rural dialect of the research assistant was expected to encourage the participants to speak naturally and openly using their original idiolects without embarrassment. The participants used their native variety freely as if they were speaking at home without accommodation or priming. In summary, although the participants were predicted to use both variants of /k/, they were expected to shift toward the use of the velar stop [k] in some positions where the affricate [tʃ] is expected. Variation was expected between educated and uneducated participants as well as between the different age groups.

#### b. Questionnaire

At the end of the recording sessions, the participants were asked to fill a questionnaire about their attitudes toward the rural dialect and more specifically about the use of the rural variant [tʃ] in their speech and their attitudes toward using this form in public or with close friends and relatives. The research assistant used qualtrics website (Qualtrics, 2018) to send the link of the questionnaire to the e-mails or WhatsApp accounts of the participants as soon as they finish their interviews as directed by me. The link led to an electronic questionnaire that was prepared by me. The participants were expected to choose a grade from a five-point Likert scale that went from (a) to (e), where the grades on the scale refer as follows: *(a) strongly agree (b) agree (c) neutral (d) disagree* and *(e) strongly disagree*. The purpose of the questionnaire was intended to gather as much as information about the social trends of the participants toward the rural dialect. Also, to gauge the use of [tʃ] variant in the rural dialect as perceived by the rural speakers



themselves. The questionnaire was distributed to the participants directly after the interview was finished to ensure that all the questions were answered under the same conditions of the interview. The statements distributed to the participants appear in the following table where they were followed by a five-point Likert scale.

**Table ( 2 ): Social trends of the participants toward the rural dialect and [tʃ] variant**

1. Speakers of non-rural dialects consider the use of [tʃ] variant in the rural dialect stigmatized.
2. Speakers of non-rural dialects prefer not to use [tʃ] variant in their speech.
3. I do avoid pronouncing the [tʃ] variant when I am in an official talk at university, government institutions, schools, etc.
4. I use [tʃ] sound freely when I am speaking with my family, relatives and close friends.
5. Old people in my village use [tʃ] variant when they speak with others regardless of their dialect.
6. My friends and colleagues in my village try to avoid using [tʃ] variant during their speech when they communicate with each other.
7. My friends and colleagues in my village try to avoid using [tʃ] variant when they speak with people from other dialects.
8. Urban people try to use [tʃ] variant when they speak with rural speakers.
9. Urban people feel that [k] variant is stigmatized when they speak with rural speakers.
10. I feel proud of my dialect when I use [tʃ] variant in front of another dialect speakers.
11. I find it difficult to communicate with my native dialect without using [tʃ] variant.
12. I think that [tʃ] variant is a distinguishing feature in the rural dialect in Jordan.

13. Rural speakers can hide their identities by saying [k] variant instead of [tʃ].
14. The variant [tʃ] is the only distinguishing sound of the rural dialect.
15. I consider [tʃ] variant the most salient feature upon which I can depend to identify rural speakers when they are in a conversation.
16. I use [tʃ] variant when I am speaking with other dialect speakers who use the same sound, like speakers from the southern part of Jordan.
17. High-level educated people prefer to use [k] rather than [tʃ] variant even if they are natively rural Arabic speakers.
18. I intend to maintain the use of [tʃ] variant because it expresses my identity and personality
19. Self-confident rural speakers use [tʃ] variant even if they are highly educated.
20. The [tʃ] sound in the rural dialect is disappearing in the rural Arabic dialect in Jordan.

### 3.1.3 Participants

The participants of the study were 24 male native rural speakers from Irbid suburbs who were selected randomly from the population of the villages around the city. They were born and raised in the rural areas and they were living at the time of conducting the study in the same area. Almost all speakers of the villages around the city of Irbid speak the same rural dialect where the [tʃ] variant is produced by some of the speakers if not all as an allophone of /k/ in some lexical items (Alkhateeb, 1988; Al-Masaeed, 2012). Though the participants are full-time residents of their own villages, they are expected to have a periodical dialect contact with the urban dialect of Irbid. Before the interviews were held with the participants, they were informed of the main goal of the study and that the data was gathered for research purposes regarding the social aspects of Irbid and its dialects. However, they were not told of the

specific goals of the study. The participants may accommodate their speech production if they were aware of the subject of the study.

As age is an important social factor in dialect variation (Britain, 2010), I divided the participants into three main age groups. More specifically, the first group included the participants between 18 to 25 years old which represents the youngest group. Participants of the second group range from 35 to 45 years old, and the ages of the eldest group were from 55 years old and above. In order to reduce the rapprochement and vicinity between the three age groups, I intended to leave a ten-year gap between the three age groups to elicit the variability amongst them and to show variation among three different generations.

Additionally, the level of education was added as another social variable to investigate its role in leveling variations among the participants. Participants with a higher level of education are expected to show a higher tendency toward the supralocal form (Britain, 2010), so highly educated participants would potentially show more leveling. Therefore, the participants were distributed into two education levels. More explicitly, a participant was considered educated if he has a university degree or he is currently a student at university. Other participants without a university degree were considered uneducated even if they were students at non-tertiary institutes at the time of data collection. I expect to find that the group of educated participants would be more likely to use the supralocal form of the urban dialect in the results, whereas uneducated participants were expected to produce more variants of their localized form. Hence, educated participants often tend to use the prestigious forms more than the uneducated participants (Abd-Eljawad, 1987).

## Chapter Four

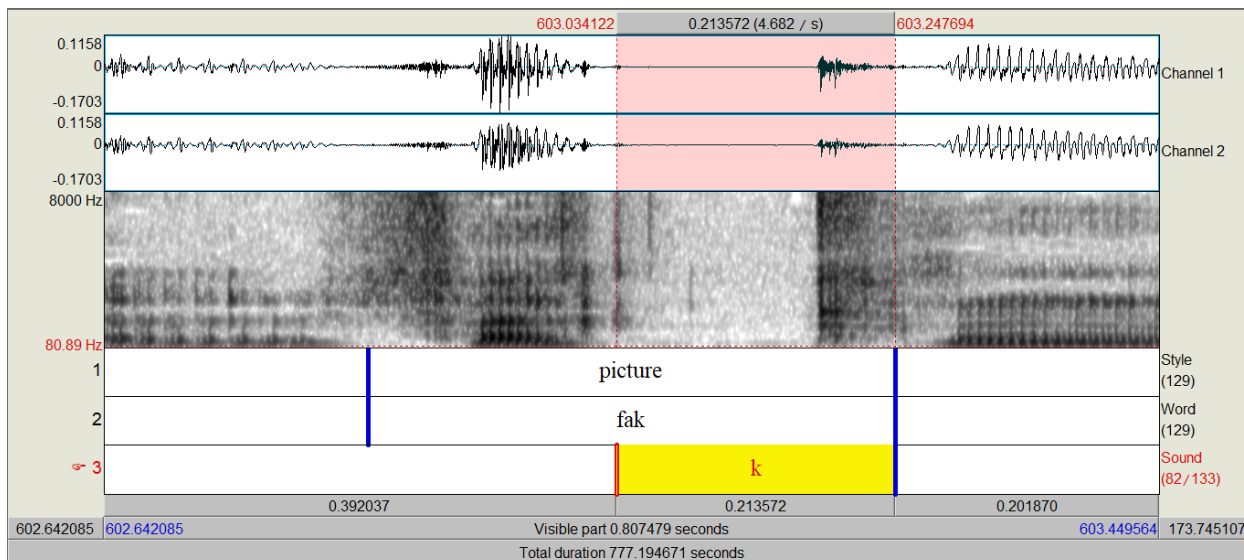
### 4.1 Results

The interviews held with the participants yielded 1,508 tokens of /k/. The participants produced 367 [tʃ] variants in contrast to the 1,141 [k] variants for the phoneme /k/. There were only 269 unique words when aggregated. It was apparent that the three different age groups (youngsters, middle-age, and elderly speakers) produced almost similar numbers of tokens which revolved around 500 tokens for each age group when the tokens were distributed to the age groups in the study. Specifically, the oldest age group came with 496 tokens, the middle age group produced 518 tokens, whereas the youngest group tokens were 494. Similarly, when the total number of the tokens was distributed to both education levels, the educated participants produced 759 tokens of /k/, whereas the uneducated participants produced 749 tokens of /k/. With regard to the style of the tokens, the participants produced 787 tokens during the free conversations in the question and answer test – these tokens were classed as *word* in the analysis. On the other hand, the participants produced 721 tokens in the naming pictures test – these tokens were classed as *picture* in the analysis. In summary, the produced tokens depicted that they were reasonably distributed evenly between the three different age groups, the two education levels, and both word styles. Thus, visual inspection of the data reveals that the variances of the data across the different levels of variables were approximately equal without any obvious deviations from homoscedasticity or normality. The following table summarizes the obtained raw data in numbers before I start the data analysis:

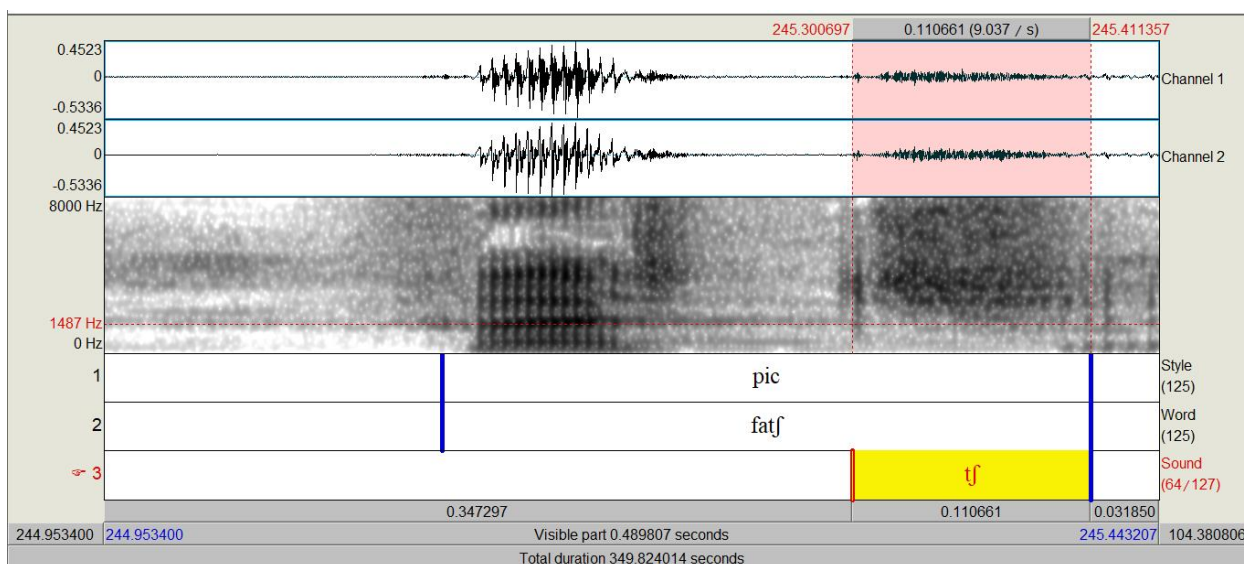
**Table ( 3 ): Tokens by different age groups and education levels**

<u>Subgroups</u>	<u>Age</u>	<u>Education</u>	<u>Style</u>
Old	496		
Middle	518		
Young	494		
Educated		619	
Uneducated		626	
Word			787
Picture			721
<b>Total</b>	1508	1508	1508

As a standard criterion, the tokens collected for the phoneme /k/ were identified as containing either only [k] possibility or alternatively [k] and [tʃ] possibilities. Before I ran the current study, I collected a list of lexical items through observations in the rural community for both tests and I noted words which contained the phoneme /k/ which was identified in the observations as having either [k] or [tʃ] allophone. Consultation was sought from three other linguists who were from the rural dialect community. They are current Master and Ph.D. students at the University of Canterbury who descend from the rural community of Jordan. They were consulted about each token and whether it could be produced with both [k] and [tʃ] or with only [k]. This depended on their experiences with rural speakers. As a result, Appendix A is a list of lexical items where I expect only the allophone [k], and Appendix B where I expect only the variant [tʃ] to be produced by the rural speakers. Depending on this classification, leveling of the allophone [tʃ] is supported if the participants used the velar [k] variant instead of the postalveolar [tʃ] variant in words occurring in Appendix B. Auditory analysis was carried out by me to identify the recorded words as containing either [k] or [tʃ]. Both allophones can be clearly discriminated from each other by both place and manner of articulation. In Arabic, the variant [k] is a voiceless velar plosive whereas the variant [tʃ] is a voiceless postalveolar affricate (Amer, 2001). The following two figures show the spectrographic representations in Pratt (Boersma & Weenink, 2018) for both variants [k] and [tʃ] and how they are different in production.



**Figure (1): The production of [k] variant in the word /fak/ (jaw)**



**Figure (2): the production of [tʃ] variant in the word /fatʃ/ (jaw)**

The data was processed and analyzed statistically with the use of two R statistical analysis packages; they are *lme4* package (Baayen, 2013) and *languageR* package (Bates, Maechler, Bolker, & Walker, 2015). After tokens were standardized in R, the total number of the unique observations recorded for the 24 male participants was 269; the rest of the 1508 tokens were

redundancies of the mentioned number. However, each instance produced by each speaker was counted in the analysis as a separate token regardless of its repetitions.

#### 4.1.1 The linguistic findings

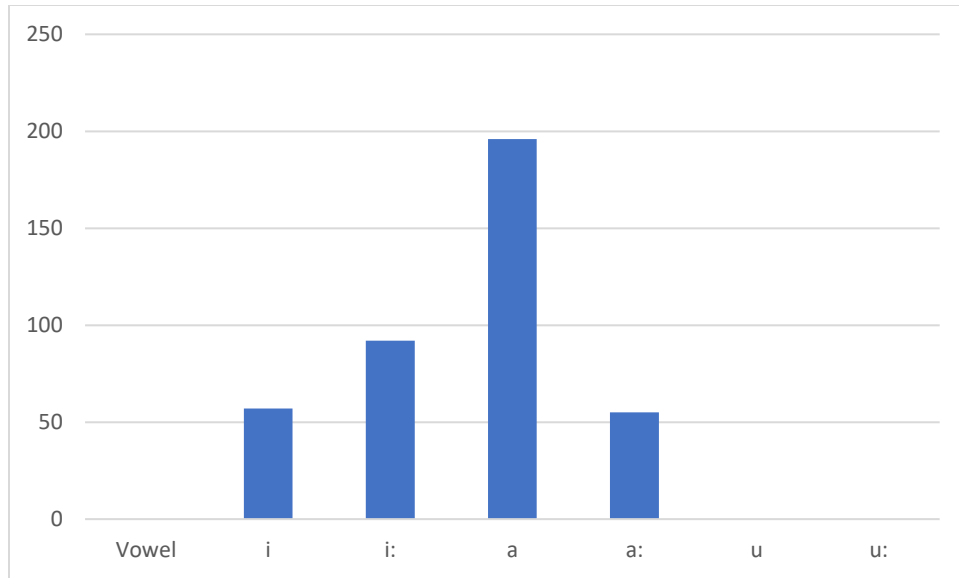
I performed a logistic mixed-effects analysis for the relationship between the occurrences of the variant [tʃ] as a dependent variable and the other four independent variables/ mixed-effects factors (age, education, style and the phonological environment). I used R statistical program (RStudio Team, 2015) with the utilization of *lme4* package (Bates, Maechler, Bolker, & Walker, 2015) and *languageR* package (Baayen, 2013) to perform the statistical analysis. I applied the logistic regression command in R without assuming an interaction between the fixed effects I have just mentioned. Therefore, all the variables were given the same weight for data analysis. For the reference level of the variables, the models created in R were set to search for the occurrences of [tʃ] variant in the observations gathered (1,508 tokens) as it was the focus of the study. The model was set to look for the variant [tʃ] as predicted by the independent factors. Thus, each token was defined by the status of the speaker who produced that; one of the three age periods, educated or uneducated levels, style of the token whether a word in conversation or a picture, and the preceding and following vowels. Age groups in the model were intercepted to the elderly age group as a reference level for the other two groups – the young and the middle. As for the phonological environment, vowels preceding or following the investigated variant in each token were identified and labeled as well. All the raw data were coded in a .csv file (see Appendix H).

With regard to the phonological environment, both variants of /k/ occurred in intervocalic positions, at the onset or coda of a syllable in many positions as in the following words: *kam* (how), *heik* (so), *bikir* (unmarried). The three words could be produced with either [k] or [tʃ]. Thus, preceding and following sounds before or after each [tʃ] variant were identified in order to investigate the

phonological environments in which the affricate variant [tʃ] occurs. As for the transcription of Arabic phonemes, they were defined in this study using the Sampa Arabic transcription except for the variant [tʃ] which was defined according to IPA as it is not available in Sampa transcription (Wells, 2002). Arabic vowels were defined as the following six sounds: (a, a:, i, i:, u, u:). For explanation, the two dots occurring with the vowels refer to long vowels; otherwise, the vowel is short with the same quality. There were very few instances where the variant [tʃ] occurred in a consonant cluster and it was referred to this phonological environment by the letter C (consonant). However, this environment occurred with only two instances of the same word where the preceding consonant is a lateral /l/ in the word /?'iltʃ/. The same token which was produced with syllabic /l/ by participant 11-O-E and participant 4-Y-E was realized by adding /-ih/ to the word by the rest of the speakers /?'iltʃih/ where [tʃ] became the onset of the second syllable. Furthermore, I used the symbol (.) in the model to refer to tokens where the variant [tʃ] is not preceded or followed by a sound in cases where it occurs at the beginning or end of a syllable as in the token /tʃalib/ or /di:tʃ/. As for random effects in the model, I made intercepts for the participants and the produced tokens by the speakers and the standardized words produced by them. As a result, *p-values* were attained by likelihood ratio tests of the full model with the effects of the independent variables against the model without the effects in question.

Initially, I ran the model and included all the independent variables that might affect [tʃ] occurrence. They were age (three age groups), education (two levels), style of the token (picture or word in speech), and the phonological environment (preceding and following vowels of the variant [tʃ]). Both long back high vowel /u:/ and short back high vowel /u/ were excluded before running the model as both vowels did not occur with [tʃ] variant in any token. The following figure (figure 1) illustrates vowel occurrences near the [tʃ] variant with the number of the occurrences of each vowel before or after the variant.





**Figure (3): Frequency of vowels preceding or following the [tʃ] variant**

It appears in figure (3) that both back vowels /u/ and /u:/ never occurred before or after the [tʃ] variant. Thus, the postalveolar affricate [tʃ] was preceded or followed by only front vowels. More specifically, we can see that the short front low vowel /a/ occurred more frequently with [tʃ] variant with a total number close to 200 tokens. Conversely, its long counterpart /a:/ is the least frequent with only 55 instances. On the other hand, the long front high vowel /i:/ occurred more frequently with [tʃ] than its short form /i/; they were around 90 and 55 instances respectively. Though the short low vowel /a/ was more frequent with [tʃ] than its long variant /a:/, the short high vowel /i/ was less frequent than its long form /i:/.

The interaction between different levels of variables was applied showing that interaction between variables is not statistically significant. With the use of ANOVA test for model judgment (RStudio Team, 2015), I compared different models and came out with the best model that includes only the significant factors without applying any interaction between them. Thus, the final model predicted the variant [tʃ] by age, style, and preceding sound only. Education

levels and following sound were excluded from the model as their effects were not statistically significant.

#### 4.2 Independent Factors

I constructed a logistic model of the variant [tʃ] as a function of age, style of word and preceding sound. The model found that the standard deviation for the 24 male speakers participating in the study is (1.716) whereas the standard deviation for the standard words came at (19.204). More explicitly, table (4) summarizes the effects of the significant independent variables on the occurrence and variation of the variant [tʃ].

**Table ( 4 ): Most potentially significant factors of [tʃ] occurrence**

	Estimate	Std. Error	z value	Pr(> z )	
(Intercept)	17.6024	4.5400	3.877	0.000106	***
AgeM	0.5421	1.0290	0.527	0.598338	
AgeY	-1.9842	1.0609	-1.870	0.061440	.
styleword	-5.9895	3.1909	-1.877	0.060512	.
prec.vowel a	1.9026	3.6122	0.527	0.598395	
prec.vowel a:	-6.2584	7.4257	-0.843	0.399335	
prec.vowel c	3.6939	1.3295	2.778	0.005461	**

The model shows that [tʃ] variant is the least likely to occur in a consonant cluster after a consonant, preceding consonant *p-value* came at 0.005461. Consequently, we could see that word style is statistically significant in comparison with the other variables. Thus, the participants were more likely to use the supralocal [k] variant with naming pictures test than in spontaneous free conversations. Previous research studies investigating the same variant did not refer to style variations or the possibility of [tʃ] occurrence in a consonant cluster (Al-wer, 2000; Al-wer, 2007; Mustafawi, 2007; Al-Masaeed, 2012; Al Rojaie, 2013). With regard to age groups, although age was not a significant factor, the model shows that the young speakers showed more [tʃ] maintenance

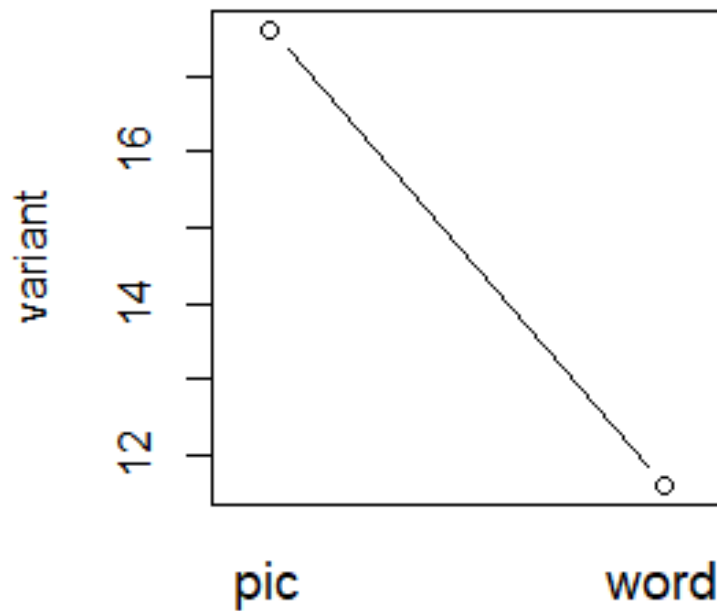
than the other two groups (middle-age and elderly) as the *p-value* for the young speakers came at 0.061440 when intercepted against the elderly group as a reference level. However, coefficient value for young age group was approximately 1.9842 with a standard error at 1.0609. The results of the study were inconsistent with other research studies that referred to the preference of youngsters to the supralocal variant [k] when compared with other age groups (Al-Essa, 2009; Al-Masaeed, 2012; Al Rojaie, 2013). However, this finding will be discussed more extensively with reference to attitudes in the discussion chapter. The model did not show any significance for preceding vowels when both /u/ and /u:/ were excluded as they did not occur in any token before or after [tʃ] variant. However, consonants occurring before the variant [tʃ] did not appear significant. In other words, data analysis found that consonants are the least likely to occur before [tʃ] variant and it is more likely to be preceded by one of the following vowels /a, i:, , i, a:/. The previous table (table 4) illustrates the significant effects and *p-values* of the effective variables as analyzed by R (RStudio Team, 2015).

I will now elaborate on the effect of each factor on the occurrence of [tʃ] below starting with the most statistically significant factors then I will refer to the non-significant factors after that.

#### 4.2.1 Style

The participants produced 787 word tokens in the first test and 721 picture tokens in the second test. Tokens in the first test were more spontaneous and vernacular as they were less affected by the academic format of the MSA dialect. On the other hand, tokens in naming pictures test showed more tendency toward leveling by using more [k] in the place of [tʃ] with some instances. The academic variety (MSA) would allow for only [k] variant to occur (Amer, 2001), whereas speakers in free conversations would normally use their localized variant [tʃ] freely.

Having a look at table 4, we could see that word style is significant with a *p-value* at (0.060512) and a coefficient value at (-5.9895). However, the effect of the standard error for the style of word was 3.1909. More explicitly, the participants tended to use more [k] variant with naming pictures test than in question and answer test and free conversations. For instance, the token /?'ilkih/ was realized with [k] variant instead of [tʃ] in five positions out of 13 in the naming pictures test although the rest 8 tokens were realized as [tʃ] by the rest of the speakers in the same test. The word /di:tʃ/ was realized as /di:k/ two times out of seven instances only in the pictures test though it was always produced with the localized variant [tʃ] in the question and answer test. The following figure (4) illustrates the effect size of the style of word where tokens that occurred in naming pictures test are more likely to be affected by the leveling process.

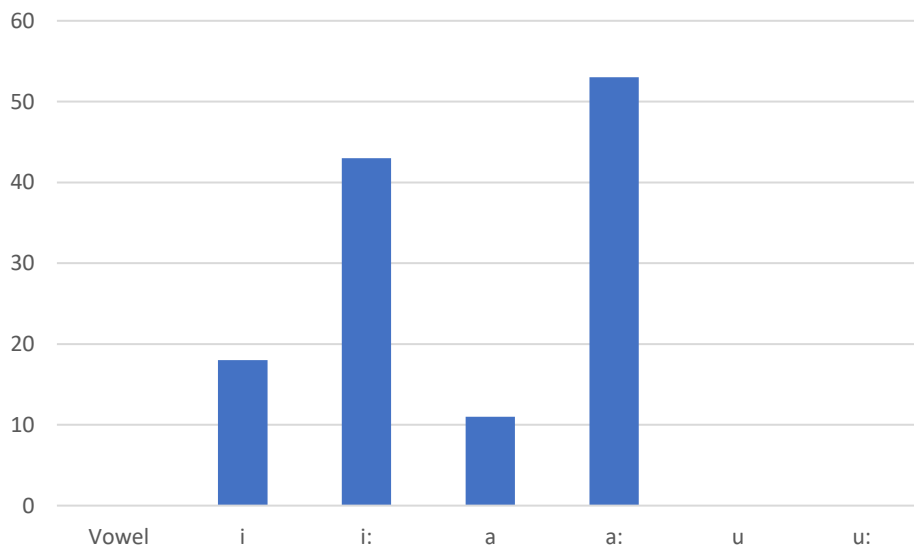


**Figure (4): Style of word effect on leveling**

The figure shows that picture style tokens are more likely to be produced with [k] variant with probability at 18 compared to almost 11 with the word style.

#### 4.2.2 Preceding sound

Preceding sound is used here to refer to the vowel that occurs as a nucleus of the syllable where the variant [tʃ] occurs in the coda of that syllable. However, data collected showed that [tʃ] variant could be preceded by a consonant of a previous syllable in a word though not in the same syllable as in the words /ʔ'iltʃih/ (gum) and /bibtʃi/ (crying) where [tʃ] occurs the onset of the second syllable. Therefore, only front vowels did occur after the variant [tʃ] as the following table demonstrates their occurrences. The findings of the study are consistent with previous research studies which pointed out to the preference of [tʃ] variant occurrence in some Arabic dialects with front vowels (Al-wer, 2000; Al Rojaie, 2013). However, my findings suggest in this study that [tʃ] variant occurs only with front vowels in rural Jordanian Arabic.



**Figure (5): Frequency of vowels preceding [tʃ] variant**

As it is the case with following sound, the variant [tʃ] cannot be preceded by either /u/ nor /u:/. Both long vowels /a:/ and /i:/ occurred more frequently before the [tʃ] variant with 53 and 43 instances respectively in comparison with the short vowels /i/ and /a/ which occurred only 18 and 11 times respectively. As it appears in figure (5), the [tʃ] variant favors occurring after long vowels

rather than short ones. On the other hand, with the exclusion of /u/ and /u:/, as they occur only with [k] variant, table (5) below represents the ratios of [tʃ] likelihood before front vowels in comparison with [k] variant.

**Table (5): Probation of [tʃ] and [k] by preceding vowel**

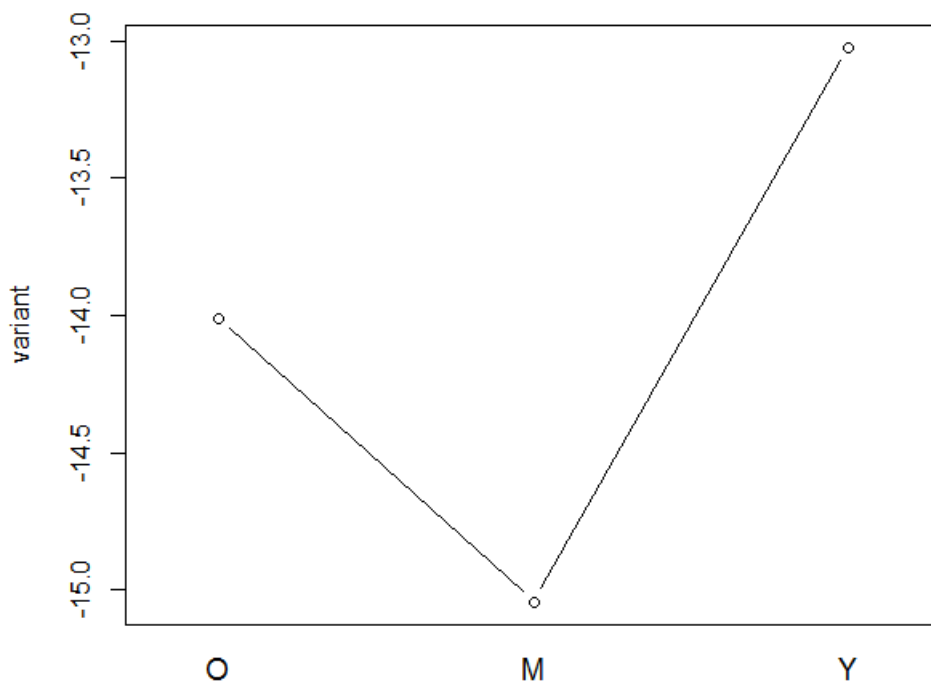
	<b>[k]</b>	<b>[tʃ]</b>
i	77%	23%
i:	12%	88%
a	94%	6%
a:	52%	48%

The table illustrates that the long high front vowel /i:/ is more likely to be followed by [tʃ] variant with a high ratio at 88% whereas it occurred the second in frequency in figure (5) with 43 instances of occurrence. Conversely, short front low vowel /a/, which occurred only 11 times with the variant [tʃ] in figure (5), is the least likely to be followed by [tʃ] variant with a low ratio at 6% only and the rest 94% instances were followed by [k] rather than [tʃ] as in table (5). As the [tʃ] variant was more frequently followed by long vowels /i:/ and /a:/ as it appears in figure (5), table (5) shows that the same vowels are more likely to precede [tʃ] variant with a high ratio at 88% and 48% respectively. Although the long low front vowel /a:/ occurs more frequently with [tʃ] variant as in figure (5), the long high front vowel /i:/ is the most likely to be preceded by [tʃ] as it is shown in table (5).

#### 4..2.3 Age

As the study constituted three age groups, the age variable was set against the old age group as the intercept in the model. Thus, the young and middle age groups were contrasted with the eldest age group. The young age group was expected to show the highest tendency toward the supralocal dialect as it appeared in other Arabic sociophonetic studies (Al-wer, 2000; Al-Essa, 2009; Al-Masaeed, 2012; Al Rojaie, 2013). The results of my study have shown that age is a statistically significant factor in the leveling of [tʃ] only for the young

group when compared with the middle age group. This result was achieved in another model when the reference level was made the middle age group. Figure (6) below represents the likelihood of producing [tʃ] for the old (O), middle (M), and young (Y) age groups. We notice that the likelihood of leveling for the old group is -14.0 compared with -15.0 for the middle group whereas it raises dramatically to -13.0 for the young age group when compared with the middle age group. Thus, results of the study are inconsistent with the results of the pre-mentioned studies hence the participants are maintaining the marked variant in their dialect (Al-Essa, 2009; Al Rojaie, 2013; Al-wer, 2007). The number of [tʃ] instances produced by each age group were led by the middle age group with 407 instances and followed by the old and young groups with 383 and 382 instances respectively. To sum up, effect size range of [tʃ] production for age is 2.026645 which came slightly significant only with the young age group when compared to the middle age group.



**Figure (6): Variations by age groups**

Though the leveling process of [tʃ] variant was very slow, leveling appeared more significant with the young age group with a *p-value* at 0.061458 and a coefficient value at 1.9681.

#### 4.2.4 Following sound

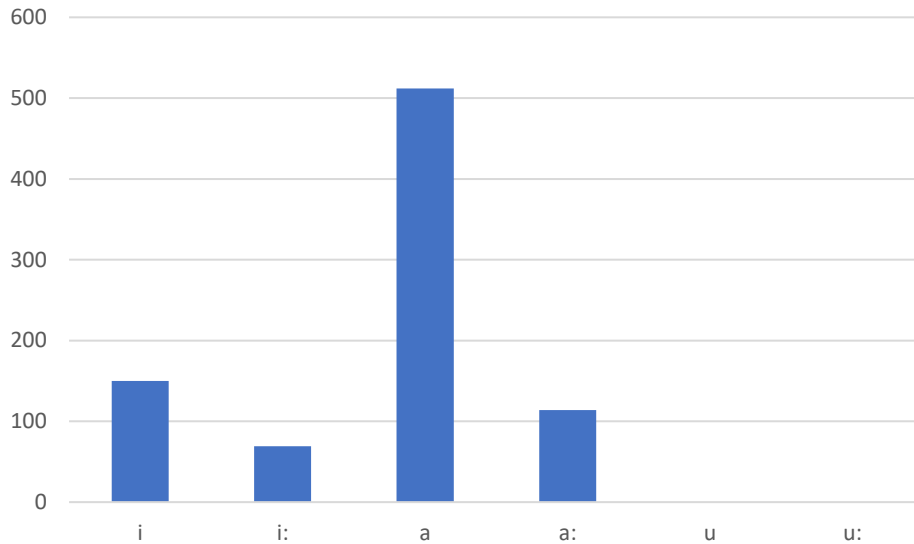
The following sound refers to the vowel that occurs as the nucleus of the syllable where the variant [tʃ] occurs in the onset. In cases where the postalveolar [tʃ] occurs in coda, the term preceding sound was used. However, data analysis of the gathered tokens has shown that the [tʃ] variant favors occurring after vowels only rather than consonants. As a result, there was only one token where the [tʃ] variant was followed by the lateral consonant /l/ in the word /tʃla:b/ (dogs). Otherwise, only vowels followed the variant [tʃ]. Table (6) lists the number of instances that each vowel occurred with the variant [tʃ] as a following vowel.

**Table (6): Frequency of vowels occurring after [tʃ]**

<b><u>Vowel</u></b>	<b><u>i</u></b>	<b><u>i:</u></b>	<b><u>A</u></b>	<b><u>a:</u></b>	<b><u>U</u></b>	<b><u>u:</u></b>
	39	49	185	2	0	0

It is apparent in table (6) that [tʃ] does not occur with the short and long back vowels /u/ and /u:/ in rural Jordanian Arabic, whereas it occurs more frequently with the short front low vowel /a/ which is followed by /i/ with 150 instances. Consequently, figure number (7) below is an illustration of the frequency of the occurrence of [tʃ] before each vowel.





**Figure (7): Frequency of vowels occurring after [tʃ]**

It is clear that the [tʃ] variant is more frequent before short vowels /a/ and /i/ rather than long ones /a:/ and /i:/. With the exclusion of /u/ and /u:/ as they occur only with [k], we could see in table (7) below the ratios of [tʃ] frequencies in comparison with [k] as per the 1,508 tokens that were collected.

**Table (7): Likelihood of [tʃ] and [k] by following vowel**

	<b>[k]</b>	<b>[tʃ]</b>
i	74%	26%
i:	29%	71%
a	64%	36%
a:	98%	2%

By comparing the data in table (7) with the data in figure (7), we could see that the long high front vowel /i:/ which occurred the least with only 69 instances as in figure (7) favors [tʃ] rather than [k] with a high percentage at 71% as per the data in the table. Moreover, the short front high vowel /a/, though it occurred with the highest number in figure (7), came with only 36% likelihood of [tʃ] as per the data of likelihood in table (7). This vowel favors [k] with a high percentage at 64%. With reference to the long low front vowel /a:/ where it

occurred 114 times with [tʃ] as in figure (7), it was the least frequent with the lowest percentage at 2% compared with 98% that occurred with the variant [k]. As a result, I conclude that /i:/ vowel is the most likely to favor [tʃ] variant rather than [k] though the least likely to occur with [tʃ] is the long front low vowel /a:/ as per the data in table (7).

With regard to consonants following the variant [tʃ], it is less likely for this affricate to occur in consonant clusters compared with the velar variant [k]. On the other hand, my data has shown that [tʃ] could occur in a syllable coda where it could be at the end of a syllable in a word as in the following words: /tʃaʔ'itʃ/ (desserts), /ʔ'iltʃih/ (gum), and /di:tʃ/ (rooster). In this case, I referred to this phonological environment by the dot symbol (.).

#### 4.2.5 Education

Both education groups (educated and uneducated) produced almost the same number of tokens with the use of the [tʃ] variant although the educated group was expected to show a tendency toward favoring the use of the supralocal variant [k]. Thus, the effect size range for education factor was 0.2450692 as the educated group realized the /k/ phoneme as [tʃ] in 585 positions compared with the uneducated group members who produced [tʃ] in 587 positions. Although this factor could play an effective role in language variation between education levels (Labov, 2007; Britain, 2010), both education groups in the rural dialect were comparably similar in the number of [tʃ] variants produced. Members of both groups produced words like / tʃaʔ'ib (ankle), tʃaʔ'itʃ (desserts), and tʃaf (forehand)/ with the use of the localized variant [tʃ] in all instances in which they occurred. In sum, the education factor was insignificant in the de-affrication of the variant [tʃ] as the data yielded from both education levels supports the absence of the leveling of the variant [tʃ] in the rural dialect.

### 4.3 Social trends

The subjects responded to the questionnaire at the moment they finished the interview with the research assistant and sent their responses immediately via the same electronic link. In the results, the responses to the statements of the questionnaire were 100% complete. There were eight participants from each group (Young, Middle, and Old) who participated in the questionnaire, and they were stratified evenly into the two main education groups (Educated and Uneducated) before beginning the interview and the questionnaire. To confirm this distribution, the first and the second statements in the questionnaire ask about the age of the participant and his education level. As soon as a participant finishes the questionnaire, the results immediately appear in my account and he will no longer have the authority to access the questionnaire a second time. At the end, all the data were accessed by only me and I ran all data analysis processes electronically with the use of the same website (Qualtrics, 2018).

The data gathered from the responses to the questionnaire clarify the participants' attitudes and trends toward the use of the rural allophone [tʃ] and the rural dialect in the suburbs of Irbid City. Counterintuitively, leveling of the allophone [tʃ] was not significantly apparent in the rural dialect which was noticed in the results of the recordings. However, these findings were clearly better explained via the responses of the participants in the questionnaire. Attitudes of the speakers toward their dialect and its marked variant were generally positive as 75% of the participants claimed that they are proud of their dialect and they intend to maintain the [tʃ] variant in their dialect. To elicit the participants' trends toward their native dialect and more specifically toward the marked variant [tʃ], the scale of the questionnaire was distributed into five-point Likert scale (*totally agree, agree, neutral, disagree, or totally disagree*) where the results appeared in the form of percentages with reference to the number of the respondents for each question by age groups and/ or education levels. However, I have combined both positive responses *agree* and

*totally agree* in one response as *agree* to report the participants' results clearly. Similarly, disagreement responses (*disagree* and *totally disagree*) were also combined in one negative response as *disagree* whereas the neutral responses are referred to by the word *neutral*. Henceforth, the significant results for the participants will be summarized below, the variability that appeared between age groups and education levels will be reported.

First, although 58% of the participants *agree* that the non-rural speakers consider the variant [tʃ] stigmatized, there were few participants who rejected this concept (37%). The remaining 4% representing one participant was neutral to the matter. We notice that there is a disagreement on the social status of the [tʃ] variant in the perspective of other dialect speakers. Notwithstanding their general negative impression of non-rural speakers about their dialect, the participants *agree* that the non-rural dialect speakers prefer not to use the [tʃ] variant in their speech. Almost three-fourths of the participants *agree* that non-rural speakers do not favor to use the rural [tʃ] variant in their speech even if they were speaking with rural speakers and they can produce it; in numbers, there were 77% who pointed out that the non-rural speakers do not prefer to use [tʃ] variant in their speech. A low number of the respondents (only 2 participants) represented by a very low percentage (9%) *agree* that urban speakers would use the rural variant [tʃ] if they were speaking with rural speakers. Therefore, most of the participants (66%) claimed that urban speakers would not try to use the [tʃ] variant when they speak with rural speakers although 21% of the participants were *neutral* in their responses. The attitudes of the participants toward their marked rural variant were highly positive which explains the reason behind the maintenance of [tʃ] variant. Twenty participants represented by 83% of the subjects expressed their pride of the [tʃ] variant when produced by speakers of the rural dialect. Only the rest 12% expressed the opposite attitude. This positive attitude of the rural subjects toward their marked variant could explain the absence of leveling for this

marked allophone in their mutual communications, rural speakers are maintaining their marked allophone which represents their dialect and dignity. The majority of participants do not agree that this variant in their dialect is stigmatized. Though it might be considered stigmatized in another speech community. The positive attitude of the rural speakers toward their dialect is in contrast with the findings of (Hussein & El-Ali, 1989), where they point out that rural speakers in Jordan classify their dialect stigmatized in comparison with the urban dialect and MSA. Generally speaking, other Arabic dialects containing [tʃ] variant were considered stigmatized by their own speakers (Al-wer, 2000; Mustafawi, 2007; Al-Masaeed, 2012; Al Rojaie, 2013). However, as the participants in (Hussein & El-Ali, 1989) were selected from a diglossic environment from a Jordanian university, the participants of my study were all from a monodialectal situation. Previous studies pointed out to the stigmatization of this variant in the eyes of their participants (Al-wer, 2000; Miller, 2005; Al-Essa, 2009; Al Rojaie, 2013), therefore, this negative attitude was reflected in their leveled speech results.

Nevertheless, 54% of the participants demonstrated that they can avoid the use of the [tʃ] variant during their communications. Their use of this variant frequently expresses their pride and dignity of their dialect as for them although it is considered a marked salient phonological feature of the rural dialect by almost all the participants (95%). Approximately, 62% of the participants claim that the postalveolar affricate [tʃ] is the only distinguishing variant of the rural dialect which can be used to recognize rural Arabic speakers in Jordan as for 83% of the participants. However, only 12% of the participants claim that this variant is not the most salient feature upon which they can depend to identify rural speakers when they are in a conversation.

Almost 82% of the participants claim that high-level educated people prefer to use the [k] variant than the [tʃ] variant even if they are native rural Arabic speakers. However, this claim was not reflected in the recordings of the

educated participants as education did not appear to be a significant factor in the production of [tʃ] variant. Therefore, this outcome confers that although rural speakers attribute the supralocal variant [k] with the academic environment and situations, they intend to maintain their rural marked variant which represents their identity and native dialect as for most of them (75%). The positive attitude of the rural speakers toward their dialect appears in their frequent use of the most salient and marked variant in their dialect. Therefore, most of the participants (79%) claimed their disagreement that the [tʃ] allophone in the rural dialect of Jordan is being leveled, whereas only 16% of the participants agree that this variant is disappearing and being replaced by the supralocal variant [k].

The absence of leveling in the participants' conversations is attributed to the native environment of recording. The participants spoke naturally as they were recorded in their home in free conversations with a native-sounding rural speaker – the research assistant. On the other hand, almost 91% of the participants claim that they would use the supralocal form [k] if they were to speak in a more formal context such as at university, government institutions, schools, etc. However, their avoidance of [tʃ] in this case would be attributed to the academic style they were using and it would be momentary. 79% denied that their friends and colleagues try to avoid using [tʃ] variant during their speech when they speak with each other. However, exactly 50% of the participants agree that rural speakers try to avoid using [tʃ] variant when they speak with speakers from other dialects whereas only 18% denied that. Two-thirds of the rural speakers (63%) claimed that they feel more comfortable to use the [tʃ] variant when they are speaking with other dialect speakers who use the same variant as speakers from the southern part of Jordan. In conclusion, although rural speakers claim that they do not consider the [tʃ] variant stigmatized, they implicitly denote that it is really so from the perspective of speakers of other dialects. With regard to age variations in the questionnaire responses, I discuss that more specifically in detail in the next section.

#### 4.3.1 Age groups

Most responses of the three age groups for the statements in the questionnaire were similar although the young age group appeared different in terms of their speech productions in the interviews. Age did not show significant variations in the responses of the three age groups to the statements of the questionnaire. For instance, the three age groups agreed with high percentages that they avoid using the [tʃ] variant in academic speech and when they are at governmental institutions. As the young group agreement came at 100%, the middle and old groups were at 83% and 77% respectively. However, the three groups agreed with a high similar ratio around 80% that they use the [tʃ] variant freely in their communications with family members and close friends. On the other hand, the elderly group expressed less agreement to the statement that their friends and colleagues try to avoid using the [tʃ] variant in their communications with other dialect speakers. Thus, only 37% of the elderly group agreed that their friends do that compared to 57% for the young and middle age groups each. The three age groups agreed with a pretty high ratio around 75% that rural speakers do not avoid using the [tʃ] variant when they are in a friendly contact with friends and relatives. Furthermore, only the elderly group claimed at 100% that they are proud of their dialect as this group is expected to be more connected with their native dialect. Furthermore, the middle age group showed the least pride in their dialect with a ratio at 63% only as they were expected to be affected by other dialect speakers. However, the young age group was in the middle with a percentage at 87%. With regard to dialect identification, both the middle and elderly age groups agreed with a low similar ratio at 37% that rural speakers can hide their identities by using the [k] variant instead of [tʃ] whereas the young age group was more confident that rural speakers can hide their dialects by using [k] only. More explicitly, both the elderly and middle-age groups were expected to have more extensive contact with other speech communities and could give more accurate conclusions. Therefore, the young age group agreed 100% that the [tʃ] variant is the most significant and distinguishing feature in the rural dialect. In terms

of maintaining the use of the [tʃ] variant, only the old age group agreed 100% that they intend to maintain using this marked feature, while the agreement of the other two groups was 62% each. In sum, all the three age groups were similar in their responses to the statements of the questionnaire with almost no significant variations.

#### 4.3.2 Education

As far as education level is concerned, educated speakers are almost more affected by leveling of marked features in their localized dialects than the uneducated speakers (Kerswill, 2003). Britain (2010) points out that an expansion in the uptake of higher levels of education is a factor that changed the spatial practices between speakers in England and accelerated dialect leveling. However, there appeared to be no significant variations between the educated and uneducated speakers of the rural Arabic dialect speakers in suburban Irbid. For instance, although both education groups claim that they avoid using [tʃ] when they are in academic situations or in public, only the uneducated group agree 100% that they do that. Conversely, 83% of the educated group members agree that they avoid using their localized variant when they are in governmental or academic situations. Participants of the educated group appeared more comfortable and open in using the [tʃ] variant when they are speaking with relatives and close friends. Eleven participants out of twelve of the educated group claimed that they use the [tʃ] variant freely when they are in domestic situations with a percentage at 91% compared with 75% of the uneducated group. Both groups agree with the same percentage that older speakers in their suburbs use the [tʃ] variant when they speak with others regardless of their dialect with a percentage at 91%. However, the uneducated group appeared more confident when they claim about their friends' and colleagues' attitudes; they reject that their rural friends try to avoid using the [tʃ] variant when they speak with others with a percentage at 67% in comparison with only 30% for the educated group. This discrepancy could be attributed to the community in which they are using their dialect, as



the educated speakers are expected to be using their dialect in academic situations and official environments where the [tʃ] variant would be considered stigmatized. The uneducated group was more confident as the use of the marked variant [tʃ] in their speech community was not stigmatized. To communicate with their friends, the educated participants were expected to use their rural dialect with speakers of other dialects, mainly urban Arabic, in the city where most academic institutions are located. Thus, both groups expressed their flexibility and freedom when they speak with speakers of dialects that use the same variant at a percentage 66% and 58% for the educated and uneducated groups respectively.

In summary, education factor does not show any differential variations in the attitudes of either groups toward their dialect and using [tʃ] variant. The educated and uneducated groups clearly show similar positive trends toward using and maintaining [tʃ] in their speech. The insignificance of education level into the results of the attitudes toward the rural dialect was reflected in the recordings of the participants; education was not significant in both the attitudes and in the speech recordings.

## **Chapter Five**

### **5.1 Discussion**

In general, the findings have shown that there is not a significant shift toward de-affrication in the rural Jordanian Arabic with the exclusion of few instances. Counterintuitively, the localized variant [tʃ] appeared slightly more prominent in the young age group although the education factor was not significant in this phonological phenomenon as well. As the youngsters were predicted to be the least exposed group to the supralocal dialect, they maintained the use of the variant [tʃ]. Furthermore, the participants generally did not consider the marked variant [tʃ] as stigmatized and they did not shift toward the supralocal form. The middle-age group was predicted to have more extensive contact with the supralocal dialect, therefore, it was intuitive that they produced more

leveled instances of [tʃ]. The ages of the participants in the middle-age group ranged between 35 to 45 years old and they were all involved in the market and business sectors and were expected to meet and contact the urban speakers more extensively. With regard to the absence of leveling, my findings show that this slight shift among the middle-age group is momentary and insignificant as the shift toward the urban dialect is very slow and does not carry over to the elderly group. However, the target population of the study generally maintained their rural marked variant [tʃ] due to the positive attitude toward their rural dialect based on their questionnaire responses. The speakers would be expected to show more leveling instances if their attitudes toward their marked variant were negative (Britain, 1997). The phonological effect of the urban variety on the rural dialect with regard to leveling of the marked variant [tʃ] was superficial and insignificant.

Education was not a significant factor as there were no significant indicators of leveling. Both educated and uneducated groups showed the same tendency toward maintaining their marked variant [tʃ]. However, educated speakers of a speech community are predicted to shift their speech earlier and faster toward the prestigious form than the uneducated speakers (Abd-Eljawad, 1987), both groups in the rural community did not consider their dialect as stigmatized.

With regard to the phonological environment of the [tʃ] variant in the rural dialect, the results have shown that it can be preceded or followed by only front vowels whether they are long or short vowels i.e. /i:/, i, a:/, a/. Whereas both back vowels /u/ and /u:/ never occurred before or after [tʃ]. Speaker 11-O-E, for instance, produced the following words /di:tʃ/ (rooster), /ʔiltʃ/ (chewing gum), /tʃla:b/ (dogs) and /tʃaʔ'ib/ (ankle). Conversely, /u/ and /u:/ vowels were followed or preceded by only [k] as the following words which were produced by speaker 6-M-E /ʃukran/ (thanks) and /ʃu:kah/ (fork). Additionally, the variant [tʃ] never occurred in a consonant cluster except with the lateral consonant /l/ in a small number of words as in the word /tʃla:b/

(dogs) as produced by 13-O-UN speaker and the word /ʔiltʃih/ (chewing gum) which was produced by 7-Y-E speaker. Phonologically speaking, the results of the study were consistent with previous sociolinguistic studies of the same variant in some Arabic dialects though these studies only indicated that the [tʃ] variant is favorably preceded or followed by front vowels (Al-wer, 2000; Mustafawi, 2007; Al-Masaeed, 2012; Al Rojaie, 2013). However, the rule of strict front vowels vicinity may apply with only the rural dialect in Jordan, as the [tʃ] variant could occur with back vowels as per the previous studies.

Leveling of the marked variant [tʃ] was prominent and slightly significant in the second test with the use of pictures. The *p*-value of the style of tokens was 0.060512. The following tokens which I gathered and listed in the list of [tʃ] words depending on my observations in the local community and with the consultation with three linguists from the rural community were realized by some speakers with [k] instead of [tʃ]. These were: the word /ʔilkih/ (chewing gum) by five speakers from all age groups and both education levels, /di:k/ (rooster) by two educated speakers, and the word /fak/ (jaw) by five speakers from all age groups and both education levels. The first two leveled words were realized by the same speakers in the first test (free conversation) without leveling; the speakers produced /ʔiltʃih/ and /di:tʃ/ spontaneously. As the supralocal variant [k] is attributed not only to the urban variety but also with MSA (Al-Masaeed, 2012; Al Rojaie, 2013), the use of pictures was meant to prime the participants and to encourage the sense of academic style using MSA which will make them shift toward the use of [k] instead of [tʃ] as using pictures is relatively closer to the written academic language. Abd-ElJawad (1987), reported that Baghdadi Arabic marked features [g] and [tʃ] are being replaced by the standard variants [q] and [k] in formal settings due to the impact of MSA rather than the northern dialects. Whereas the rest of the 24 speakers used the localized variant [tʃ] when they produced these tokens, they produced: /ʔiltʃih/, /di:tʃ/ and /fatʃ/ in the same test. Additionally, other tokens in the pictures test were produced with [tʃ] by the same speakers, where

they produced /ratʃib/ (riding), /tʃitif/ (shoulder), and /tʃaʔʔitʃ/ (desserts). Even though dialects of the suburbs of the major cities in the Arab World were referred to by sociolinguists as *localized* varieties in contrast with the *supralocal* dialect in the cities (Al Rojaie, 2013), the impact of the supralocal urban dialect on the localized rural dialect with regard to its marked variant in Irbid suburbs was superficial and insignificant due to the absence of leveling. In order for the leveling process to occur, social and linguistic factors normally push toward the linguistic change (Kerswill, 1996). In the case of the suburbs of Irbid, however, the social factors helped maintain the marked variant due to the positive attitude of the speakers toward their own rural dialect.

Although the elderly people were predicted to exhibit different amounts of leveling from other age groups (Al-Essa, 2009), the speakers of the elderly group were not significantly different from the young and the middle-age groups. Al-Masaeed (2012) claimed that the localized [tʃ] variant is being leveled among the youth in Irbid where they are using more [k] in their speech. However, my results do not support his findings as the young age group is still maintaining their localized marked variant [tʃ] more than the other two groups. An explanation for the absence of leveling among the young age group can be attributed to the lack of contact with the urban variety and the positive attitude toward their dialect and its marked variant [tʃ]. As an example, the following is a transcribed conversation with speaker 13-Y-UN who is a young uneducated speaker:

*Research assistant: Su: bingu:l ʔʔan wa:Xad kalamuh miS sʔaXi:Xʔ (what is the word that refers to someone who does not tell the truth?)*

*Participant: **tʃaDa:b** (a liar).*

*Research assistant: iDa baddak wa:Xad jitʔlaʔʔ maʔʔak bissijarah, Su: btiXki:luhʔ (how do you offer someone a pick up or a ride in your car?)*

*Participant: momkon aXki:luh itʔlaʔʔ maʔʔi: aw **irtʃab**. (I may ask him to get in with me or come in)*

Research assistant: Su: *daragat elqarabah bein abu:k wa zajtak?*

*(what is the kinship between your father and your wife?)*

Participant: *hi bitku:n **kantuh** (she is his wife-in-law)*

Research assistant: *ala:n xabbirna ?'an illibas illi: bjilbasuh ilinsa:n lamma jmu:t. (Now, tell me about the cloth that is put on the dead after his death)*

Participant: *iXna bingulluh **tʃafan**. (we call this cloth the shroud)*

Research assistant: Su: *it't'eir illi btisxa ?'ala soutuh issuuX? (what is the bird that normally wakes you up early in the morning?)*

Participant: *haD' **iddi:tʃ**. (it's the rooster).*

*\*Refer to (Wells, 2002) for Arabic transcription codes.*

The five underlined and bold words in the dialogue were predicted to be realized with the localized variant [tʃ] as they were listed in the [tʃ] list. They were also produced by other speakers with the same variant. All of the words with the exception of /kantuh/ were realized with the marked rural variant [tʃ]. With regard to the phonological environment, the variant always occurred within the vicinity of front vowels. However, the leveled token /kantuh/ was produced by the rest of the speakers without leveling as in /tʃantuh/.

## **Chapter Six**

### **6.1 Limitations of the study**

The current study is limited to explore only the de-affrication phenomenon of the variant [tʃ] of the phoneme /k/ in the suburbs of Irbid, Jordan. Thus, only the voiceless postalveolar affricate allophone [tʃ] and the voiceless velar plosive allophone [k] in the Jordanian rural Arabic dialect were addressed. Furthermore, the study also investigates this variant [tʃ] as spoken by the rural speakers themselves in this area only and examines the effect of the urban variety of Arabic spoken in the city, and its effect on the rural dialect as the direct result of dialect contact. Thus, the study does not extend to other

geographical areas and cities in Jordan. Neither does the current study address any other phonological aspects in the rural or urban dialects of Arabic in Jordan. Additionally, the study is specified to only male participants and stratified into three different age groups and two levels of education (educated and uneducated) in the rural suburbs of Irbid.

## 6.2 **Further research**

Prospective research studies could tackle other linguistic variations between the rural and urban dialects of Arabic in Jordan. This should be conducted in terms of dialect contact which could lead to either language shift or maintenance. Further research in this area would be fruitful as both dialects are phonologically different and have different variants for certain phonemes (Omari & Herk, 2016). Additionally, as the current study was constrained to only two social factors (age and the level of education), other factors like gender, for instance, could be added in future. This is because gender is considered highly influential in the divergence of speakers within a localized dialect toward the use of the supralocal variants that could be more prestigious (Torgersen & Kerswill, 2004). Women, in general, prefer to use the prestigious or the supralocal variants more often than their male counterparts (Abd-Eljawad, 1987; Haddad & Potsdam, 2016). Moreover, a greater number of participants could show different results from what I found here in this study.

## 6.3 **Conclusion**

The voiceless postalveolar affricate [tʃ], which is considered a marked variant of /k/ in the rural dialect of the suburbs of Irbid city in Jordan, is still widely used and maintained by the rural speakers. This marked variant occurs only before or after front vowels /i, i:, a, a:/ whereas the back vowels /u, u:/ do not precede or follow this variant in the rural dialect. Regarding the social factors affecting the leveling process, education and age did not show great significance though the youngsters produced least number of leveled instances than middle-aged and the elderly speakers. However, word style indicated that

the rural speakers were affected by the academic register rather than the urban variety; using pictures to elicit tokens was more consistent to the written language – this is significant as MSA allows only for the supralocal academic variant [k] like the urban variety. In conclusion, the highly positive attitude of the rural speakers toward their dialect encouraged the maintenance of this marked variant.

## Appendices

### **Appendix ( A ). Words that may contain [tʃ] variant in the rural dialect.**

	<b>Meaning in English</b>	<b>[K] Words</b>	<b>[tʃ] Words</b>	<b>unsure</b>	<b>How to test</b>
1	around	kamman	tʃamman		to refer to a number of things and ask the participant about
2	as if	ka'innoh	tʃinnoh	?	expected through context
3	shroud	kafan	tʃafan		ask about the cloth of the dead
4	complete	kammil	tʃammil		expected through context
5	cry	bibki	bibtʃi	?	using a picture
6	desserts	ka'ik	tʃa'itʃ		using a picture
7	dog	kalb	tʃalb		using a picture
8	dogs	kla:b	tʃla:b		using a picture
9	forehand	kaf	tʃaf		using a picture
10	gum	ilik	ilitʃ		using a picture
11	he is chewing	bi'lik	bi'litʃ		using a picture
12	he is riding	birkab	birtʃab		using a picture
13	heel	kaʔ'ib	tʃaʔ'ib		using a picture
14	how	keif	tʃeif		asking a question
15	how much	kam	tʃam		expected through context
16	ironing	kawi	tʃawi	?	using a picture
17	January	kanu:n	tʃa:nu:n	?	ask what's before February
18	jaw	hanak	hanatʃ		using a picture
19	ka'aakeel (a meal)	ka'aakeel	tʃa'aatʃeel		ask and mention ingredients and show a picture
20	kasasbih (a tribe)	kasasbih	tʃasaasbih		ask about the tribes in the village
21	kitim ( a city)	kitim	tʃitim		ask about the village next to Noaymih
22	liar	kathab	tʃathab		the one who does not tell the truth is a ... ?
23	like this	heik	heitʃ		expected through context
24	liver	kibdih	tʃibdih	?	using a picture
25	lying	kithib	tʃithib		so he will be (action) ...?
26	maybe	balki	baltʃi		expected through context
27	pot	kafkeer	tʃaftʃeer		ask how to put hot yoghurt on Mansaf (a traditional meal)?
28	ram	kabS	tʃabiS	?	ask what did Prophet Abraham slaughter in Eid Al Adha as a sacrifice to God instead of his son?
29	ride	irkab	irtʃab		what do you say when asking someone to be on an animal?



30	cock	deek	deetʃ		using a picture and/ or a question
31	shoulder	kitif	tʃitif		Using a picture or indication
32	shut up	.....	intʃab		ask a synonym for /Ixras/
33	sister in law	kannah	tʃannah		what is the word that stands for a sister in law refer to?
34	more	kaman	tʃaman	?	asking a question
35	speak	ihki	ixtʃi		what is a synonym for talk?
36	speech	haki	hatʃi	?	what is a synonym for talking?
37	stir	bixarik	bixaritʃ		how to make Turkish coffee?
38	two words	kilimti:n	tʃilimti:n	?	indication of two words
39	virgin	bikir	bitʃir		a lady who hasn't married is?
40	was	kan	tʃan		expected through context
41	with you (fem)	indik	inditʃ		expected through context
42	word	kilmih	tʃilmih		ask about a word
43	words	kalimat	tʃilimat	?	ask about plural words
44	you lie	btikthib	btitʃthib	?	what does someone say to another about his talk if he is not telling the truth?

**Appendix ( B ). Words that are expected to contain only [k] variant in the rural dialect.**

	<b><u>Meaning in English</u></b>	<b><u>Rural</u></b>	<b><u>Urban</u></b>	<b><u>How to test</u></b>
1	a glass	ka:s	ka:s	using a picture
2	a piece of bread	kisrat xoboz	kisrat xoboz	asking a question
3	cactus fruit	ku:z s'abir	ku:z s'abur	using a picture
4	a kind of sweets	knafah	knafah	using a picture
5	again	kaman	kaman	asking a question
6	air conditioner	mokajif	mokajif	using a picture
7	bag	ki:s	ki:s	using a picture
8	berries	karaz	karaz	using a picture
9	big	kabi:r	kabi:r	asking the opposite of small
10	biscuits	basku:t	basku:t	using a picture
11	congratulations	mobarak	mobarak	asking a question
12	book	kitab	kitab	using a picture
13	box	buksih	buksih	using a picture
14	cave	kahf	kahif	asking a question
15	chair	korsi	korsi	using a picture
16	church	kani:sih	kani:sih	asking a question
17	college	kulijjih	kulijjih	asking a question
18	constipation	imsa:k	imsa:k	asking a question
19	coriander	kuzbarah	kuzbarah	asking a question
20	cottage	kuSk	kuSuk	using a picture
21	eclipse	kosu:f	kosu:f	asking a question
22	elbow	ku:?'	ku:?'	using a picture
23	electricity	kahraba	kahraba	asking a question
24	greater	akbar	akbar	asking a question (athan)
25	fish	samakah	samakah	using a picture
26	food	akil	akil	asking a synonym for meal
27	fork	su:kah	su:kah	using a picture
28	generous	karim	karim	asking the opposite of stingy
29	I hated that	ikrihtoh	ikrihtoh	asking the opposite of love
30	I was	konit	konit	asking a question
31	ilkarak (city)	ilkarak	ilkarak	asking a question
32	infidel	kafir	kafir	asking a question
34	infidels	kuffar	kuffar	asking a question
35	Kaaba (holy house)	ilka'bah	ilka'bah	using a picture
36	Kaathem (name)	ka:d'im	ka:d'im	asking a question
37	perfectness	kamal	kamal	asking a question the

				opposite of incompleteness
38	kidney	kiljih	kiljih	asking a question
39	king	malik	malik	using a picture
40	kingdom	mamlakah	mamlakah	asking a question
41	laugh	bid'xak	bid'xak	using a picture
42	marrow	ku:sa	ku:sa	using a picture
43	net	sabakih	sabakah	asking how to catch fish
44	nuts	mukassara:t	mukassara:t	using a picture
45	perfume	misk	misk	asking a question
46	planet	kawkab	kawkab	using a picture
47	rub	bixok	bixok	asking a question
48	samosa	kibbih	kubbah	using a picture
49	saying	kalam	kalam	asking a synonym for speech
50	shape	sakl	sakil	using a picture
51	she was	kanat	kanat	asking a question
52	shoes	kondarah	kondarah	using a picture
53	sugar	sukkar	sukkar	using a picture with a question
54	sulfur	kibri:t	kibri:t	asking about lighters
55	thanks	Sukran	Sukran	asking a question
56	to complain	biStaki	biStaki	asking a question
57	doubtful	Sak	Sak	asking the opposite of certain
58	Turkey (country)	turkiyya	turkiyya	asking a question
59	treasure	kanz	kanz	using a picture with a question
60	write	biktob	bifok	using a picture with a question
61	your place	makanak	makanak	asking a question

**Appendix ( C ). (The interview questions about words that are expected to contain [t] variant in the rural dialect)**

The research assistant will greet the participant and ask him to introduce himself and talk about his life history for around a minute.

1. How many people normally visit you if you have a celebration or a party? Are they many or just few?
2. What is the thing that can carry tons of things but it can't carry a single pin?
3. What is the first month in the year and it comes just before February? Can you say other Arabic months in the year?
4. How many tribes are there in your area? Can you mention them if you please?
5. What is the village in Irbid City which comes next to Noaymah Village? Could you mention names of other villages in the city that are around that area?
6. As we normally refer to a person who says the truth as honest. So, If someone is not telling the truth he will be a (noun) ... ? And at that moment he will be (action) ...?
7. Do you think that people who do not say the truth are honored by others in the society? Why do you think so?
8. Could you please tell us about the most traditional meal that people of your country almost make in their gatherings or public celebrations? Do you like that meal and why?
8. What are the traditional occasions in which Jordanians normally make Mansaf (a traditional Jordanian meal)? What is the name of the tool used to add hot yogurt to Mansaf? Are there any other important dishes or tools needed for that meal?
9. Traditionally, what did Prophet Abraham slaughter as a sacrifice to God instead of his son?
10. How do you ask a person to be on an animal or in a car? Do you prefer use a car or a bus for public transportation and why?
11. What do you/ your father or mother call the wife of the son?

12. What is the verb that means exactly as 'to talk'? And what is the noun that stands for the noun 'talking'?
13. Where do school students go on vacation in summer in your country? Could you please mention the main popular places that they normally go to?
13. What is the cloth that you wear though you do not see? It is white, and everybody must wear that?
14. What is the bird that has wings but it can't fly and it is not the penguin?
15. How do you make a cup of Turkish coffee? And what do you do after you add the coffee powder to the boiling water? Do you do the same when you make tea?
16. Do you know how to make Arabic coffee? Do you think it is different?
17. What is the word that means a lady who hasn't married yet?
18. What would we get if we combine some letters together? (a word) what would we get if we added another one to that? They will be two (words)? And three (words)?
19. What would we get if we combine words together? We will then have one (sentence)?
20. Do you often wake up early? What is the sound of the bird that normally wakes up people in the villages? Do you like its sound?

**Appendix ( D ). (The interview questions about words that are expected to contain [k] variant in the rural dialect)**

1. What is the opposite of the word ‘small’ in Arabic?
2. When you visit a friend or a relative who has just had a happy occasion, what do you say to them?
3. As we know Muslims go to the mosque if they would like to pray, so what is the name of worship for Christians?
4. University students who study in the same university almost study at different departments which might be in different ....?
5. What might happen to someone if he/she eats a lot of pomegranates especially if they did not have their breakfast before?
6. Could you please say the first two words that begin Athan?
7. What word in Arabic could stand for the word food “akil”?
8. What is the opposite of the word “stingy” in Arabic?
9. What is the opposite of the word “to love’ in Arabic?
10. If I say am happy today, what can I say about my state yesterday?
11. Could you guess the city in the southern region of Jordan which has a very famous castle?
12. What is the opposite of the word believer in Islam?
13. Could you please make it plural?
14. Could you please mention the most popular Iraqi singer in the Arab World?
15. What is the opposite of the word ‘incompleteness’?
16. If we refer to Syria as a republic, so what is Jordan?
17. As you know there are more than one way to catch a fish, could you mention what material do people normally use to catch a fish?
18. What is the type of perfume which is extracted out of a kind of deer, do you like that?

19. What is the word that could mean speech in Arabic “gowl”?
20. We can say about a lady that she is happy today, but what can we say about her state of feelings yesterday?
21. What did people in the past use to use in order to start a fire other than lighters?
22. If someone did you a favour, what should you say to them?
23. Why do people normally go to a police station, what would you do if you were in a problem with somebody and you were close to there?
24. Could you tell the opposite of the word “certain” in Arabic?
25. Could you say the name of the country which is on the borders of Syria and Iraq and it is a non-Arab Country?
26. What synonym in Arabic could stand for the word ‘area’?
27. What is the word that could mean a piece of a loaf of bread in Arabic?
28. What would you ask somebody if you are offering him more tea for example? You will say do you need .... tea? (Kaman)
29. What is the chapter of the Holy Quran that each Muslim has to recite every Friday?
30. What is the kind of plants that look too much similar to parsley?
31. What is the scientific phenomenon when the sun is hidden by the moon?
32. Why can't you sometimes touch wires if they are not insulated?
33. What is the part of the boy which is responsible for purifying blood in the body?
33. What do you normally do if your eye irritates?

**Appendix ( E ). Pictures that are expected to contain [k] variant in the rural Jordanian Arabic dialect with some distracting pictures.**

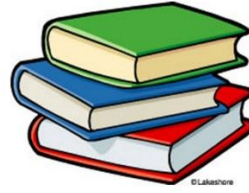
<p>1.</p> 	<p>2.</p> 
<p>3.</p> 	<p>4.</p> 
<p>5.</p> 	<p>6.</p> 
<p>7.</p> 	<p>8.</p> 
<p>9.</p> 	<p>10.</p> 



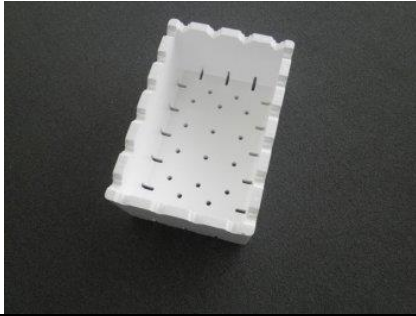
11.



12.



13.



14.



15.



16.



17.



18.



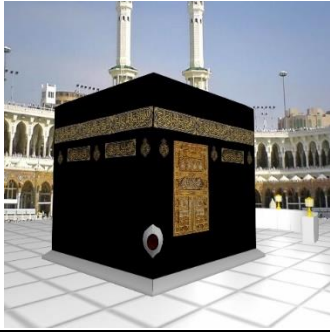
19.



20.



21.



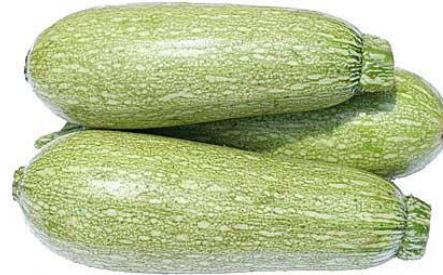
22.



23.



24.



25.



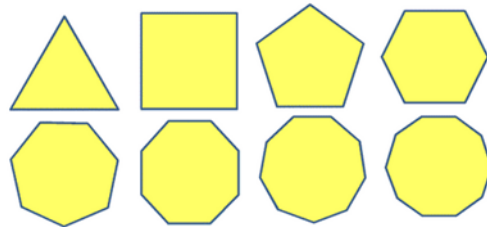
26.



27.



28.



29.



30.



31.



32.



33.

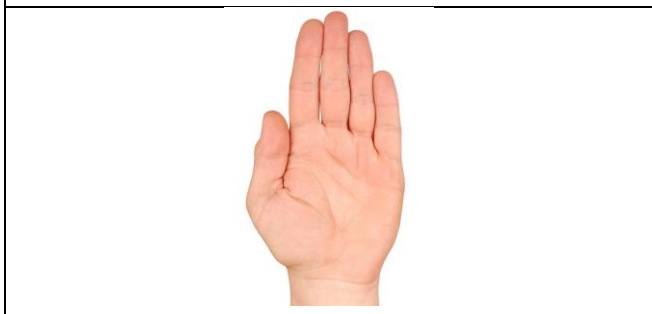
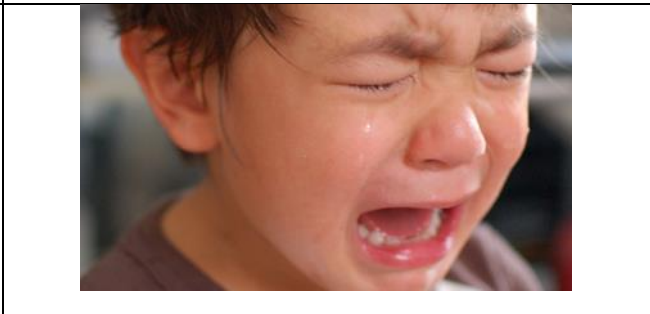
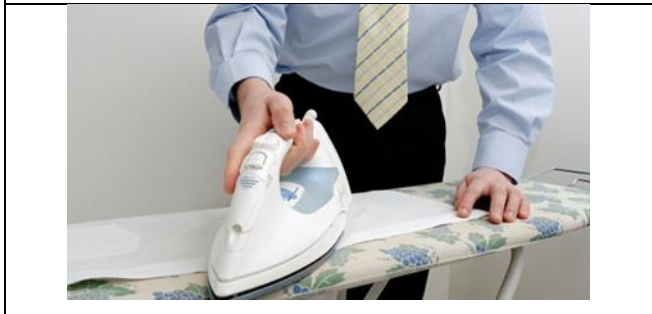


34.



**Appendix ( F ). Pictures that are expected to contain [tʃ] variant in the rural Jordanian Arabic dialect with some distracting pictures.**







**Appendix ( G ). A questionnaire about the use of [tʃ] sound in the rural Jordanian Arabic dialect to be distributed just after the interview.**

1. Speakers of other dialects consider the use of [tʃ] sound in the rural dialect stigmatized and they prefer not to use it.  
*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*
2. I do avoid pronouncing the [tʃ] sound when I am in an official talk at university, government institutions, schools, etc.  
*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*
3. I normally use [tʃ] sound freely when I am speaking with my family, relatives and close friends.  
*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*
4. Old people in my village normally use [tʃ] sound when they speak with others regardless of their dialect.  
*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*
5. Most of my friends and colleagues in my village try to avoid using [tʃ] sound during their speech when they communicate with each other.  
*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*
6. Most of my friends and colleagues in my village try to avoid using [tʃ] sound when they speak with people from other dialects.  
*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*
7. Urban people try to use [tʃ] sound when they speak with rural speakers and they feel that [k] variant is stigmatized.  
*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*
8. I feel proud of my dialect when I use [tʃ] sound in front of another dialect speakers and use that freely.  
*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

9. I find it difficult to communicate with my native dialect without using [tʃ] sound.

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

10. I think that [tʃ] sound is a distinguishing feature in the rural dialect in Jordan.

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

11. Rural speakers can hide their identities by saying [k] variant instead of [tʃ] and there are no other sounds that can distinguish rural speakers.

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

12. I consider [tʃ] sound the most salient feature upon which I can depend to identify rural speakers when they are in a conversation.

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

13. I normally use [tʃ] sound when I am speaking with other dialect speakers who use the same sound, like speakers from the southern part of Jordan.

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

14. High-level educated people prefer to use [k] variant rather than [tʃ] even if they are natively rural Arabic speakers.

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

15. I intend to maintain the use of [tʃ] variant because it expresses my identity and personality

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

16. Self-confident rural speakers use [tʃ] variant even if they are highly educated.

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

17. The [tʃ] sound in the rural dialect is disappearing in the rural Arabic dialect in Jordan.

*a. totally agree    b. agree    c. neutral    d. disagree    e. totally disagree*

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