The impact of 'phonological characteristics of Pashto' and 'native English environment' on the pronunciation of English consonants

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A Dissertation Submitted in Fulfilment of the Requirements for the Degree of

Master of Arts in Teaching English to the Speakers of Other Languages

Middlesex University London, UK

September, 2011

Acknowledgements

Abstract

There is a profound relationship between phonological characteristics of a language and the intelligibility of the speakers of that language. Pashtun speakers or learners of English, whether in Pakistan or in UK, consider their pronunciation to be a hindrance in smooth communication during their interaction with foreigners or among themselves. In this regard, the current study investigates the impact of phonological characteristics of Pashto and the influence of native English environment on the pronunciation of English consonants. For this purpose a sample of five Londoner Pashtuns (residing there around five or more than five years) and five Pakistani Pashtun speakers (domiciled in Khyber Pukhtunkhwa province)of English participated in this study. The process of data collection included an open ended questionnaire and two readings based on two different groups of consonants inserted in fifteen sentences in each reading. Both groups of participants responded to the questionnaire and read aloud 'Reading 1' and 'Reading 2' which included specific consonants. The analysis of findings demonstrated that those consonants which were absent in Pashto language and were present in English consonant group appeared to be difficult for Pashtun speakers of English. Moreover, non-native consonants of Pashto which appeared during literature review also caused difficulties for Pashtun speakers of English. Regarding the influence of native English environment, the findings exhibited that there is considerable role of native environment and it showed reasonable improvement in the pronunciation of Pashtun speakers of English residing in London.

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CHAPTER 1

1.1   INTRODUCTION

It is an understood fact that a native speaker of a language has the ability to identify foreign accents of non-natives of that language. Main reason behind this recognition is that such non-native accents suffer from intelligibility problems in the usage of certain consonants or vowels. Like other native speakers of languages, the ability of native English speakers to differentiate between native and non-native accents is also quite reasonable to admit for the reason that any foreign accent in English, in reality, is based on regular difference of phonetic norms of English language which the natives are unfamiliar about and their sounds are not pronounced the way they appear in foreign accents such as Pashtun, Japanese or Caribbean accents of English. For a learner the threshold level in pronunciation is to make the listener comfortable regarding intelligibility of his accent as according to Fraser (2000) an ESL learner should be able to use accent or accents of what he/she likes but to be comfortably understood by the average native speaker. What is intelligibility has been defined quite clearly by Kenworthy (1987) as "intelligibility is being understood by a listener at a given time in a given situation." The achievement of the threshold intelligible level in accent is considered as one of the most important and also difficult stage for a learner of English. Being unable to achieve comfortable pronunciation level cause further discouragement as mentioned by Huang (2009). According to him, learner's inability and frustration about required pronunciation level becomes the reason of 'language shock'. Horwitz (1988, cited in Young, 1991) and Gynan (1989, cited in Ohata, 2005) also reported that their participants' sensitivity towards their pronunciation created anxiety for them and they further got discouraged.

It is also a generally accepted fact that learners of English often become proficient at grammar, morphology and semantics even sometime to the level of a native user of English but remain unsuccessful regarding achieving the acceptable level of phonology of English. In this regard the role of

learner's L1 is a major factor involved in developing the accent of an ESL/EFL learner (Avery and Ehrlich, 1992). It is evident from the research that mother tongue syllable structure and phonological characteristics have great impact in the production of target language sounds. The erroneous sounds produced by the second language learners are actually the reflection of the sound system of their mother tongue and not only the random attempts for the production of different sounds of L1 (Singleton and Lengyel, 1995).

As the researcher mentioned above that mother tongue has a considerable role in the production of L2 sounds thus the English language teachers in this regard are needed to be aware about the critical role mother tongue of the learner plays in pronunciation learning and producing target language sounds. In this regard contrastive analysis is an approach which can shed light and convey a lot regarding similarities and differences between two languages and can help the researcher to come up with a product to make the teachers and learners both understand the differences of mother tongue and target language.

The current project is restricted to understand the consonantal differences between English and Pashto language by using the contrastive analysis approach. Pashtun speakers of English whether living in England or Pakistan have a particular way to pronounce English consonants. The researcher, during his stay in England and Pakistan has observed that their consonantal production has some consonantal sounds which are worth studying for the reason that these consonants create intelligibility problems and are hurdle in the way of convey message smoothly. The listeners either put extra effort to understand the words including such consonants or then need ask for repeating the word.

The main focus of this study is to find out those consonants which are hurdle for Pashtun speakers of English in learning pronunciation and which create problems of intelligibility for the listener. In order

to achieve the objectives contrastive analysis approach in literature review in chapter 2 and then later on data collection instruments have been used. Further to the aim of the study, it is quite evident that those consonants which are not present in Pashto interfere with the pronunciation of Pashto speakers of English and create intelligibility problems for the listeners. Thus this took the attention of the author to conduct study based on contrastive analysis and find out the differences of pronunciation that appear in Pashtun speakers' use of English. In other words it can be understood that Pashtun learners or speakers need three extra consonant sounds to be learned and on the other hand they need to neglect the twelve consonant sounds of Pashto and need to exercise restriction of such consonants not to influence English pronunciation. Moreover, this study is also based on investigating the role of mother tongue in the production of English consonants. As there are many consonant sounds in English which are same in English language but various others do not match exactly or not present in English. Same is the case of English consonants and it restricts Pashtun speakers of English in appropriate pronunciation of English consonants. Other than these two aim the third aim and focus of this study is to investigate whether living in native English environment has influenced Pashtun speakers' pronunciation of English consonants.

1.2   Aim of the research

This study has been conducted to find out those consonants of English which Pashtun speakers of English feel difficult to pronounce. In addition, investigating the phonological impact of Pashto in the production of English consonants is also the part of the aim with the third and final part of the project which is based on finding out whether the Pashtun speakers of English have improved their consonantal pronunciation by living in native English environment of London. This aim got its place in the mind of the researcher after realizing the need of the research study for Pashtun speakers in view of the fact that the researcher has observed Pashtun speakers of English to be uncomfortable while pronouncing some of English consonants. During teaching in both private

and public sector schools and colleges, the researcher personally observed this phonological difference and pronunciation problem. Thus finally the researcher decided to conduct this study to provide a set of ideas in order to make ESL/EFL teachers aware and making them capable to play their role and put extra efforts on such learners and speakers of English to work out their problems in pronouncing English consonants.

Chapter Two

Background to the Research and Literature Review

This chapter presents the syllable structures and sound systems of both English and Pashto languages followed by the theoretical background relating to learning of L2 pronunciation. In this regard, the major theories relating to the comparison between two or more languages have been given. At the end of this chapter, the contrastive analysis of both the languages have been entailed and the sounds, absent in the languages for each other, have been shaded. This contrastive approach resulted in the identification of those areas which may be problematic for Pashtun speakers of English.

2.1 English Syllable Structure

One of the prominent members of Indo-European language family is English language. Its system of alphabets has been derived from Latin with orthography based on letters which denote vowels and consonants. Like other alphabetical languages, English also has the system of division of syllables based on number of vowels that determine how many syllables build up a word.

English language belongs to the group of languages that are called stressed-timed. In such languages, the time taken in pronouncing a sentence is related to the stress receiving syllables in that sentence (Windfuhr, 1979). (C) (C) (C) V (C) (C) (C) (C) is the longest possible structure in English syllable system where (C) represents consonant and (v) represents vowel sounds. It is revealed that English language has the ability to allow initially a cluster of three consonants maximum and four at the end or after the vowel sound. A good example of such cluster may be 'scrambles' **/skræmblz/** where the first cluster at the beginning and then four at the end make up the longest possible syllable. Syllable structure of English with possible combination of vowel and consonants is as follow:

Words	Phonetic transcription	English syllables
I	/i/	V
an	/æn/	VC
ask	/æsk/	VCC
apples	/æpls/	VCCC
she	/ʃi/	CV
sir	/sɜ: (r)/	CVC
battle	/bætəl/	CVCC
Hints	/hInts/	CVCCC
free	/fri:/	CCV
Trees	/tri:s/	CCVC
stand	/stænd/	CCVCC
pranks	/præŋks/	CCVCCC
trampled	/træmpəld/	CCVCCCC
Strew	/stru:/	CCCV
Sprig	/sprIg/	CCCVC
Sprint	/sprInt/	CCCVCC
strands	/strændz/	CCCVCCC
scrambles	/skræmblz/	CCCVCCCC

Table: 2.1 Syllable Structures of English

The table above reveals the fact that in English language the occurrence of consonant cluster in onset and coda or syllable initial and final is possible. Regarding structural point of view, the consonant cluster in

English allow three initial and four final consonants clusters with an additional feature that syllables can also be initiated by a vowel.

2.2   Sound system of English language

2.2.1   Consonants

English is a language with twenty six letters including twenty four consonants and 12 vowels. There are also diphthongs there which are 8 in total. These all in aggregate are forty four phonemes (Sousa, 2005). Though some of the linguists are not agree with this number but the variation is not that much huge rather they come with phonemes between 43 to 45. In the table given below, English consonants have been arranged according to their manner and place of articulation. In manner they have been arranged vertically and the place of articulation has been shown horizontally.

	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Glottal	Examples
Plosive	p b			t d			k g		pick tick kick big dig guest
Affricate					tʃ dʒ				chapter joke
Nasal	m			N			ŋ		beam keen ring
Fricative		f v	ө ð	s z	ʃ ʒ			H	fig thick sick shine hit vine the zebra treas<u>u</u>re
Approximant				R		j	w		round yell walk
Lateral Approximant				L					lamb

Table: 2.2.1 (Consonants of English)   International Phonetic Alphabet (IPA), 1999, p. 41.

The table above presents both manner and place of articulation of the consonants of English language. In the first row horizontally, there are six plosives /p, b, t, d, k, g/ which are divided into three categories i.e. bilabial plosives, alveolar plosives and velar plosives. /p, b/ the bilabial plosives are produced by stopping the air passage in the mouth by the two lips and soft palate rises to stop the nasal passage of air. Then the two lips open to let the air go out which produce plosive sounds /p/ and /b/. The former is voiceless and the latter is voiced where the vocal cords vibrate. /p/ sound is produced aspirated in initial and middle positions if it is used before stressed vowel and remains un-aspirated if it is used in final position as in the word 'stop'. In middle position the sound /p/ also remains un-aspirated if it comes after /s/ sound and followed by a vowel sound.

The sounds /t/ and /d/ belong to the category alveolar plosives where the air passage is closed completely by raising the tip of the tongue to touch the alveolar ridge and soft palate. When the tongue allows the air to pass the plosive sounds /t/ and /d/ are produced. Sound /t/ is voiceless and vocal cords do not vibrate while its production. Like the sound /p/ it also comes aspirated in its initial and medial positions if it appears before stressed vowel and remains un-aspirated if comes after /s/ and before vowel.

Sounds /k/ and /g/ are also voiceless and voiced respectively. They belong to the category velar plosives where the air passage is blocked by placing the back of the tongue against soft palate. When the soft palate is raised the air passage produces sounds /k/ and /g/. Vocal cords do not vibrate for the former and they do for the latter. After the plosive sounds, there come fricatives which are consonants of English language with the characteristics that during their production of them they produce hissing sounds. English language has nine fricatives which are as follow: **/ f, v, θ, ð, s, z, h, ʃ, ʒ /.**

In the given fricative consonants, four of them /v, ð, z, ʒ/ are voiced and vocal cords vibrate while they are produced. Rest of them are voiceless. These fricatives may be divided into the following categories: sibilant voiceless fricative /s/ and sibilant voiced fricative /z/ voiceless post alveolar sibilant fricative /ʃ/ and the same but voiced one /ʒ/. Other than them are voiceless labio-dental non-sibilant fricative /f/ and voiced labio-dental fricative. Then next ones are voiceless linguo-labio-dental non-sibilant fricative /Ɵ/ and /ð/ is voiced linguo-labial fricative while /h/ is voiceless glottal fricative consonant sound of English language.

In the above table it is observed that English language has three nasal consonant sounds which are /m/, /n/ and /Ŋ/ sounds. All the three are voiced ones and the vocal cords vibrate while they are produced. In these nasal sounds, /m/ is bilabial nasal consonant sound while /n/ and /Ŋ/ are dental-alveolar and velar consonant sounds respectively. /m/ and /n/ sounds can occur initially but /Ŋ/ sounds do not occur initially. Another feature of these nasals is that they have their syllabic allophones. Other than fricatives, given table also shows 'affricates' which is another category of English consonants. There are two sounds in affricates which are / ʧ/ and /ʤ/ sounds. Both are post-alveolar affricate with the difference of voiceless and voiced quality respectively.

After the affricates, the table shows another category of consonants that is approximant consonants which include /r/, /j/ and /w/ sounds. In first instance, the sound /ɾ/ is used in between the vowels like we have in 'very' that is usually called alveolar tap. Other allophones of /r/ sound are retroflex tap /ɽ/ and voiced continuative /r/ like we have in the words 'hard' and 'serene' respectably. In this same list of approximant, there are two more consonants which are /j/ and /w/ sounds. The former is palatal and the latter is known as velar approximant.

The last category of consonants according to the above table is lateral approximant /l/ sound. Its usage in different positions has developed its four allophones which are clear /l/, dark /ɫ/, dental /l̪/ and voiceless /ɬ/. The first two mentioned are used more frequently than the rest two. The first

allophone of /l/sound, clear /l/ is most frequent one in all the four and come in word initial position like in the word 'love'. Dark /ɫ/ is the allophone of /l/ sound which comes at final position of the word like in 'rival' and inter-vocalically like in the word 'silk'. The third allophone dental /l̪/ also involves teeth in its articulation like in the word 'wealth' and the final sub-category of /l/ sound that is voiceless /ɫ/ as in the word 'clay'.

2.3   Pashto language

Pashto is a language spoken on both sides of Durand line between Pakistan and Afghanistan. It is national and provincial language of Afghanistan and Pakistan respectively. Due to various reasons, its name is spelled in various ways and one of the known reasons is the dialectal differences. The middle consonant of Pashto is different in different areas of Pashtun speakers. For example Kandaharis pronounce 'Pashto' with [sh] as a middle consonant and eastern and central Pashtuns due to their changed dialects pronounce middle consonant like German ch sound. Another reason is the lack of appropriate fixed system of standard transliteration to render it in proper Roman alphabet. This lack of system developed the freedom for Pashto writers and users to write out as they could consider appropriate. In the western world particularly for BBC and VoA it is <u>Pashto</u>. Earlier books and literature reveal further variety of the name of this language. For example in the Bellow's grammar of Pashto published in 1667, the word Pashto has been used as Pa<u>kkh</u>to which is a new variant and this underlining belongs to Bellow as well of which he might have to show it is a non-English word or he wanted this spelling like this. While later on in the works of Lorimer, 1915 in his grammar book, fifty year after the work of Bellow (1667 cited in Tegey & Robson, 1996) he used the word 'Pashtu'. (Tegey and Robson, 1996).

Like Beluchi, Kurdish, Ossentian, Persian and Tajik languages are internally relatives, Pashto also shares their nearest relative group. Pashto belongs to the family of Indo-European languages and specifically it belongs to the Iranian branch of this family. Being part of this family, Pashto is

relatively near to English language. Following is the family tree of the Indo-European languages family.

Indo-European Language Family						
Celtic	Germanic	Italic	Hellenic	Baltic	Slavic	Indic	Iranian
(Welsh)	(English Germanic)	(Italian French)	(Greek)	(Latvian Lithuanian)	(Russian Polish)	(Hindi Urdu)	(Persian Pashto)

Table: 2.3   Language family of Pashto

Although Pashto follows the writing style of Arabic and has borrowed various words of Arabic but as a matter of fact it does not belong to Arabic language. Regarding nature of this language, it happened to be one of the most conservative languages of the world as it still preserves archaic elements and continues to use gender differences through nouns. while rest of the languages belong to Iranian branch have lost this distinctiveness. Furthermore though it belongs to Iranian branch of languages, but it shares its retroflex consonants with Indic group of languages. The nearest word sharing language of Pashto is Dari for the reason that their speakers' share neighborhood since ages. Other than Afghanistan, Pashto is the provincial language of North West Frontier Province of Pakistan which is now called as 'Khyber Pukhtunkwa'. It is also spoken in Baluchistan province of Pakistan. Pashto did not get official status in the mentioned province of Pakistan and the medium of education for Pashtuns is either Urdu or English. Still it is strange fact to say that more books are published in NWFP province of Pakistan than in Afghanistan and this high number of publishing houses is the result of British presence in this region.

Pashto language has three main dialects: western dialects, central dialects and eastern dialects. Southwest areas of Afghanistan and Baluchistan area of Pakistan speak western dialect of Pashto or can also be called Kandahari dialect. Other than these Khattak and Wazir tribes of NWFP

Pakistan in their dialect have the characteristics of Kandahari dialect particularly the retroflex consonants are used by the said tribes. The residents of Kabul, Parwan province, Logar and Ghazni, speak central dialect of Pashto. This dialect is also called Kabul dialect. The areas like northwest of Pakistan and northeast Afghanistan have the eastern dialect. This dialect is also known as Ningrahar dialect. Among these dialects, the western and central ones are under the influence of Persian while the one spoken in Pakistan i.e. eastern dialect borrows vocabulary from English and Urdu languages. Each of such dialects has its own prestige for its speakers. If eastern is considered normal way in NWFP of Pakistan then Kandahari is more enjoyable for afghan speakers of the Kandahari dialect. In Afghanistan writing system follows Kandahari dialect while in Pakistan eastern dialect is used for literary traditions. The soldier and grammarian of British army in 19th century Lorimer (1915) is of the view that:

.........Many an Afridi or Shinwari [tribes of NWFP Pakistan] phrase or pronunciation will incure the contemp of Pehsawar Munshi [a Pashtun teacher of the British troops in Peshawar] as a solecism or a boorishness,

while to the countryman the Munchi's speech will seen foreign, womanish and mincing'.

(Lorimer, 1915 cited in Tegey andRobson, 1996)

Regarding standardization of Pashto language, there is no standard fixed like English or Urdu languages have. There is no agreed upon standard system of Pashto either oral or written which can be considered as the basis of 'Correct Pashto'. Languages other than Pashto (for example English) have agreed upon rules that there is a set of universally accepted spellings, punctuation and capitalization etc. and all those who do not comply with the agreed upon set of rules are considered uneducated. But unlike such rules of English, Pashto has no such rules of spelling or punctuation etc. and the writers of Pashto enjoy the freedom that they write up words the way they choose. Though highly educated Pashtuns and native speakers of this language are used to of such variations but non-native speakers of Pashto and language learners do face problems due to this lack of standardization. The contribution of non-native speakers is also a problem in

standardization of Pashto as in newspapers and magazines, the writer and typewriters are non-native speakers or translations are carried out form Urdu or Dari which reflect resemblance to Urdu or Dari and less attention is paid to the main language being tried to develop.

Although some positive steps towards standardization of Pashto were taken to develop it. In this regard, the establishment of Pashto academy in Afghanistan in 1930 by King Zaher and Pashto academy in Peshawar Pakistan in 1950, are notable. These academies were established to ensure the development of Pashto by including it appropriately in syllabus at schools as medium of instructions and to be used in government offices in Afghanistan and provincial offices in Pakistan but this could not happen. Although the members of afghan academy did notable work for the development of Pashto by translating notable works from other languages, publishing works of Pashtun poets, did research in social sciences. Their recommendations to ensure the set rules for spellings and punctuation were appreciable. Similarly in Peshawar, Pashto academy also performed in the same way and research is being carried on to develop Pashto used in Pakistan.

2.3.1 Syllable structure of Pashto

Like English, Urdu or other languages, Pashto also has a syllable structure with minimum one vowel with possibly three consonants before and two after the vowel. Given below are the syllable structures possible in Pashto language where the alphabet 'c' represent consonant and 'v' represent vowel.

V	CV	CCV	CCCV
VC	CVC	CCVC	CCCVC
VCC	CVCC	CCVCC	CCCVCC

Languages follow certain set of rules of syllable combination in the makeup of words. For example in English language 'ŋ' sound cannot be used to start a word. Similarly, in Pashto language the consonant [h] can only begin a word while the retroflex [ṇ], the diphthong [əy] and the sound [ر]

occurs as final syllable of the word. If the consonants of both the languages are considered as compare to English, Pashto has more allowable combinations. (Tegey and Robson, 1996). Following are the most frequent combinations of two consonant clusters of Pashto with English alphabetical order:

[br]	[brən]	angry
[br̩]	[br̩astan]	quilt
[by]	[byal]	separate
[dr]	[dremgar̩ə]	third person
[dw]	[dwadish]	thirty two
[dzgh]	[dzghalawi]	moves
[dzm]	[dzmikh]	test
[dzw]	[dzwai]	son
[gr]	[grάn]	expensive
[gr̩]	[gr̩az]	blasting noise
[gw]	[gwətma]	finger ring
[ghl]	[ghlagar]	thief
[kl]	[klaq]	tough
[kr]	[kraka]	horrible smell
[kr̩]	[kr̩as]	breaking sound
[kw]	[kwənd]	widower
[khp]	[khpə]	foot
[khw]	[khwast]	request
[lm]	[lmər]	sun
[lw]	[lway]	big

[my]	[myasht]	month
[mr]	[mram]	dying
[mṛ]	[mṛə]	dead
[ng]	[ngur]	grapes
[ngh]	[ngharay]	burner
[nm]	[nmar]	sun
[ny]	[nymat]	blessing
[pl]	[plandar]	step father
[pr]	[prakar]	thunder sound
[pṛ]	[pṛaŋ]	lion
[py]	[pyala]	cup
[tl]	[tlal]	going
[tr]	[tr ə]	paternal uncle
[sk]	[skarə]	burning coal
[skh]	[skhar]	father-in-law
[sp]	[spak]	light (opp: of heavy)
[sr]	[srə zə r]	gold
[st]	[stognə]	residence
[sw]	[swaredal]	riding
[shk]	[shkaṇ]	wheat bug
[shp]	[shpon]	shepherd
[xk]	[xkulul]	kiss
[wl]	[wlar]	gone
[wr]	[wrur]	brother

[wṛ]	[wṛund]	blind
[zg]	[zgeṛəl]	sew
[zgh]	[zhgam]	forbearance
[zml]	[zmung]	our
[zṛ]	[zṛəwar]	courageous
[zy]	[zyarat]	visiting
[zhm]	[zhməndz]	hair comb
[zhw]	[zhwand]	life

Now following are the clusters which, though appear in some words, but the words they form are that much frequent and fundamental that mentioning them here is obligatory.

[bl]	[blarba]	pregnant
[dy]	[dyarlas]	thirteen
[khy]	[khyal]	thought
[ml]	[mlast]	lied
[nj]	[njələ]	lass
[ngh]	[nghəri]	rolling around
[shkh]	[shkara]	clash
[shm]	[shmeral]	counting
[tw]	[twu:n]	capacity
[tsk]	[tskal]	drinking
[tsw]	[tswarlasama]	fourteenth
[zb]	[zbexi]	sucking
[zd]	[zdashawə]	learned
[zr]	[zrak]	push

[zw]		[zwəndun]	life

Following are the consonant clusters which are only limited to onomatopoeic words but needed to be mentioned here:

[khṛ]		[khṛap]	slapping sound
[tṛ]		[tṛaq]	gunshot noise

At the end are clusters which are three in total and come at the beginning of the vowel which are as follow:

[khw]		[khwakh]	favourite
[khwd]		[khwdάy]	Allah almighty
[ndr]		[ndror]	sister-in-law
[skw]		[skwələl]	shear
[skhw]		[skhwandər]	ox
[shkhw]		[shkhwand]	chew
[xkw]		[xkwəlawəl]	kissing

As mentioned earlier, Pashto language allows three consonant clusters initially and two after the vowel. In Pashto language syllable –final clusters are less in number than the ones appear in syllable-initial and formers are mostly borrowed words like bank for the two-consonant cluster at the end. Following are the most frequent words of native Pashto with two consonant clusters at the end.

[kht]   [sakht]   hard

[nd]   [qadarma<u>nd]</u> respectable

[nḍ]   [dunḍ]   pool

[rg]   [zwanimerg] young death

[ṛkh]   [naṛkh]   rate

[sk]   [məsk]   smiling

[st]   [mlast]   lie down

[xt]   [puxt]   generation

2.3.2   PASHTO CONSONANTS AND THEIR ARTICULATION

Pashto language contains thirty two consonants in total. Following table is the systematic presentation of Pashto consonants along with the place of the articulation in horizontal way and the manner of articulation in vertical column.

	Bilabial	Dental	Palatal	Retroflex	Velar	Uvular	Pharyngeal
Stops **Voiceless** **Voiced**	P B	t d		ṭ ḍ	k g	q	
Nasals	m	n		ṇ	ng		
Fricatives **Voiceless** **Voiced**	F	s z	sh x		kh gh		ɦ h ʔ
Affricates **Voiceless** **Voiced**		ts dz	ch j				

Others							
Voiceless		l					
voiced	W	r	Y	ṛ			

Table: 2.3.2 Consonants of Pashto   (Tegey and Robson, 1996)

Technical description of the consonants presented in the above table:

[p]   bilabial stop and voiceless consonant

[b]   bilabial stop and voiced consonant

[t]   dental stop and voiceless consonant

[d]   dental stop and voiced consonant

[ṭ]   retroflex stop and voiceless consonant

[ḍ]   retroflex stop and voiced consonant

[k]   velar stop and voiceless consonant

[g]   velar stop and voiced consonant

[q]   aspirated uvular stop and voiced consonant

[ ]   glottal stop and voiceless consonant

[m]   bilabial nasal and voiced consonant

[n]   dental nasal and voiced consonant

[ṇ]   retroflex nasal and voiced consonant

[ng]   velar nasal and voiced consonant

[f]   labio-dental fricative and voiceless consonant

[s]   dental fricative and voiceless consonant

[z]   dental fricative and voiced consonant

[sh]   palatal fricative and voiceless consonant

[x]   palatal fricative and voiceless consonant

[kh]	velar fricative and voiceless consonant
[gh]	velar fricative and voiced consonant
[h]	glottal fricative and voiceless consonant
[ɦ]	pharyngeal fricative and voiceless consonant
[ʔ]	pharyngeal fricative and voiced consonant
[ts]	dental affricate and voiceless consonant
[dz]	dental affricate and voiceless consonant
[ch]	palatal affricate and voiceless consonant
[j]	palatal affricate and voiced consonant
[l]	dental lateral and voiced consonant
[r]	dental tap and voiced consonant
[ṛ]	retroflex flap and voiced consonant
[w]	bilabial , voiced, consonant form of [u]
[y]	palatal, voiced, consonant form of [l]

There are many consonant sounds in Pashto which do not belong to it rather have been borrowed from other languages like Arabic, Persian and some others. Such sounds are [f], [q], [ɦ] and [ʔ]. These sounds are pronounced differently by the educated and uneducated Pashtuns natives. Some of the given examples show the difference how these sounds are tackled by native Pashtun speakers.

The sound [f] which is non-native sound of Pashto is pronounced as [p] sound, the examples of which are as follow:

[fazul]: extra or irrelevant   [pazul]

[faqir] beggar   [paqir]

It has been observed that the educated Pashtuns pronounce [f] sound properly and uneducated and informal speech carry the [p] sound instead of [f].

Another sound [q] has also changed pronunciation as [k], the examples of which are as follow:

[taluq]: relation   [taluk]

[aqal]: wisdom   [akal]

Same is the situation with this sound as uneducated Pashtuns or informal usage of [q] becomes [k]. Further on the two other non-native Pashto consonant sounds [ɦ] and [ʔ] are also mispronounced by the uneducated Pashtuns and during informal speech educated also pronounce it with difference to the original sound. Following are the example of such use;

[ɦalaq]: boy   [alak]

[ɦalta]: there   [alta]

[ʔilam]: knowledge   [ilam]

[ʔamomi]: ordinary   [amomi]

The examples reveal that the non-native sounds of Pashto language are pronounced in a way that shows the non-native nature of the discussed sounds. The dental consonants of Pashto and retroflex consonants also reveal the difference between English and Pashto sounds which often become problem for the speakers of both languages.

2.3.3   EXEMPLARY USAGE OF PASHTO CONSONANTS

Below are the consonants of Pashto language with its full range. Now according to the given table first of all the consonants that resemble English consonants are arranged below:

[b]	[balakht]	pillow
[ch]	[chak]	bite
[dz]	[dzaman]	sons
[f]	[fasal]	crop
[g]	[tag]	going
[h]	[haq]	right
[j]	[jawar]	deep
[k]	[kusa]	street
[m]	[malk]	country
[p]	[pishu]	cat
[s]	[sar]	head
[sh]	[shpa]	night
[ts]	[tsangul]	elbow
[w]	[wakht]	time
[y]	[yaveesh]	twenty one
[z]	[zama]	my, mine

Now given are the consonants which to an extent are different from English consonants:

[t]	[tush]	empty
[d]	[dung]	tall
[l]	[lus]	ten
[n]	[nə]	not

The following consonant sounds differ to a large extent from English consonants:

[gh]	[afghάn]	afghan
[ɦ]	[ɦalwu:]	name of sweet dish
[kh]	[wekhtə]	hair
[q]	[sunduq]	trunk
[r]	[chakar]	round
[x]	[xu:g]	sweet
[ʔ]	[ʔάməl]	act

Retroflex consonant of Pashto language:

[ṭ]	[ṭok]	episode
[ḍ]	[ḍeru:n]	piles
[ṇ]	[ruṇə]	brothers
[ṛ]	[maṛ]	dead

2.4   Contrastive analysis and related theories

Successful communication in a non-native language involves more than one aspect of a language. If grammar contributes to the correctness of language, gestures play their role towards the clarity of the meaning and vocabulary works for better presentation of one's ideas. In speaking, though all mentioned aspects contribute in their own way but the role of accurate pronunciation is indispensable and cannot be ignored in any case. The ability to identify differences between the sounds and then pronouncing them correctly has always been a major problem towards the intelligibility for the learners of a foreign language. Though it is not compulsory to have native like pronunciation but there is a threshold level to be achieved at least to pronounce the way the

sounds should not be hurdle or misleading in smooth communication. The question of why the learners of a foreign language feel difficulty in acquiring the sounds or what is the role of native language sound system in the learning of another language has been under consideration since long time. There are different ideas developed in search of understanding the impact of sounds system of L1in learning the pronunciation of a foreign language. In the following paragraphs, there are presented fundamental pace setting theories which have been developed in quest of understanding the role of mother tongue in learning the pronunciation of a foreign language.

2.4.1   The Critical Period Hypothesis

The Critical Period Hypothesis known as CPH is the contribution of Penfield in 1959 of which was letter worked on by Lenneberg in 1967 (cited in Malgorzata Jedynak, 2009) and now he is considered the inventor of it though he had only given it a further development to it. In its first version, this theory asserts that native-like way of pronouncing sounds is more possible in childhood or in early age and as soon as the puberty of a learner starts this development is disrupted and the ability of the learner decreases. In other words it followed 'The earlier, the better' idea which influenced greatly the primary schools of the United Kingdom and the US where the centre of focus become the age rather than focusing on the pronunciation itself which was followed between 1940's and sixties. According to Penfield learners who were below the age of twelve were more flexible (neural plasticity) and it helped them to acquire better and this ability later on disappeared with the increase in age. Both of the mentioned researchers above were having basis of their evidence mainly after pathologically studied cases including abnormal to normal brains. Popular proponents of 'The Critical Period Hypothesis' are Pulvermuller and Schumann 1994 who attached it with the role of Myelin in the brain. Myelin is basically a layer of lipids and proteins which acts as catalyst to speed up the mental process and it is present in more quantity in the more busy areas of the brain than in the less busy ones. Although it is quite evident

that the most authentic material like the pathological cases are available in support of CPH but on the other hand the criticism of this theory, with the fact that myelination works even years after the age which the CPH considers puberty, seems reasonable in its essence.

2.4.2   The Native Language Magnet Model

In 1990's The Native Language Magnet Model dominated all the other theories. Its central idea is that, irrespective of age, it is the phonology of the native language that interferes and creates problems in acquiring the native-level pronunciation of the language being learnt. This idea, which gives importance to the interference of L1, supports the existence of diverse mappings of sounds of L1 present in L2. These sounds are considered as prototypes of native sounds and remain in the memory for a long term. According to this theory these mappings based on neural perceptions happen in infancy and with its magnetic ability it functions by taking in these prototype sounds. In other words a phonological filter is built which notices down those sounds that make difference to the first language and hence they are pronounced correctly. This reveals that as the learner gets older, his or her ability to create new mappings for the language being learnt gets weaker.

2.4.3   The Speech Learning Model

Initially this theory appeared in 1995 by Fledge which further threw light on the difference of accent acquiring of younger and adult learners. Its central idea is that the failure in acquiring L2 accent is due to the involvement of phonological filter of L1 in learning L2 by the adults and hence their approach comes against the one used by the younger learners. The formers, due to infirm establishment of their L1, possess the ability to acquire native like pronunciation, and the weak L1 phonological filter remains less active to interfere with acquiring L2 accent. The significant aspect to be counted about adult learners is the closest counterpart in L2 which the adults find closest to the sounds of their mother tongue and pave their way on the basis of similarity of nearness of

sounds of both the languages. Fledge named this notion as 'equivalence classification'. In discussing adults' approach he uses terms 'similar sounds and new sounds' which due to their nearness or lack of nearness are important ideas for the learners in acquiring accent. Fledge is of the view that for experienced or adult learners new sounds are less troublesome for they belong to a new group of sounds and there comes no confusion of nearness with the sounds of L1. On the contrary, closest counterparts cause more trouble and are considered more difficult to get them as are desired.

2.4.4 Contrastive Analysis Hypothesis

Comparison of two languages is the part of linguistics since long time. Many of the experts of this field have been conducting research to understand the similarities and differences between the languages. The name 'contrastive analysis' has been termed for the comparison of two languages to understand similarities and differences since early 1940's. This activity is to study the insights of the languages for their differences and the similar aspects which are further utilized for its pedagogical implications. Its main contribution toward language study is its imparting the knowledge of language structure and the relations between languages. In support of contrastive analysis, Fries (1945) is of the view that '[t]he most effective material are those that are based upon a scientific description of the language to be learned carefully compared with a parallel description of the native language of the learner'. The mid of 20th century, for a decade contrastive analysis with its pedagogical implications remained integral part of teaching any foreign language for the reason that the era was ruled by Behaviouristic psychology and contrastive analysis was also based upon such assumptions introduced by Behaviouristic psychology. Such theoretical basis did not include mental process in language acquisition rather remained limited to imitation and correct responses. Another aspect of contrastive analysis is that it is based on the assumption of transfer of mother tongue features to the target language usage.

Lado (1957) in this regard states:

……………….....individuals tend to transfer the forms and meanings, and the distribution of forms and meanings of their native language and culture to the foreign language and culture-both productively when attempting to speak the language……and receptively when attempting to grasp and understand the language….as practiced by natives.

(Lado (1957) in Linguistics Across Cultures)

Keeping in view the above statement of Lado, it was structural linguistics which systematically contributed to language study, by utilizing contrastive analysis, compared structure of both L1 and TL of learner so as to find out the difficulties faced by learners of TL and to provide material based on pedagogical implications of contrastive analysis to pave the way for the learner's learning target language.

The contrastive Analysis Hypothesis, introduced by Lado in 1957, was the most influential and the most followed approach from 1950's to 1970's. Lado was of the opinion that learner of an L2 transfers his complete L1 system into the language he learns and replaces native language features with that of second language. This theory comes up with its central idea that if a learner perceives a sound inaccurately, his production of inappropriately perceived sound would also be inaccurate. The sounds of second language are taken as sounds that are closest counterparts in native language and hence such interpretation takes place. In other words, this theory advocates that those sounds of native language which have closest counterpart in L2 should not make problems in the correct pronunciation of L2 sounds while those which are not should do so. Lado was with the view that closest counterpart can act as a replacement if there is no misunderstanding in its usage. According to his idea, the errors which result during the comparative study of two languages are dependent on the contrast and similar aspects of the mother tongue and the target language of the learner. For example in English language, if two nouns appear together the first noun serves as modifier while second remains as head noun.

Similarly Pashto language follows the same criteria and as compare to Farsi language (where this order is reversed) there are fewer chances of errors. Thus this hypothesis is based on the concept that the more the language (L1) differs from target language (TL) the more chances of difficulty materialized for the learner. In support of such concept, Lado (1957) is of the view that:

'The student who comes in contact with a foreign language will find some features of it quite easy and others extremely difficult. Those elements that are similar to his native language will be simple for him and those elements that are different will be difficult'.

The language transfer concept was also put forward as the psychological basis of this hypothesis in two negative and positive types. The former will take place if mother tongue of the learner does not resemble to the language intended to be learned and due to dissimilarities the difficulties appear while the latter takes place if both L1 and TL of learner are similar. This facilitates the learning process as the difficulties which arise due to the lack of similarities do not come into the way of learner for the reason that L1 transfers positively into learning situation of target language. It is further supported by the linguistics with the explanation that similarity of cultural items, sounds, structures and words with that of the target language result in easy reception and learning of target language and dissimilar patterns cause difficulties. Such a version of 'degree of difficulty depends on degree of difference' is known as strong version of contrastive analysis hypothesis. In continuation, Lado (1957) stated that …. 'the assumption that we can predict and describe the patterns that will cause difficulty in learning, and those that will not cause difficulty, by comparing systematically the language and culture to be learned with the native language and culture of the student'.

Similar supporting statement of Lee (1968) further highlights the strong version of CAH with the his statement …' the difficulties are chiefly, or wholly, due to differences between the two languages; the greater these differences are, the more acute the learning difficulties will be'

Being strongly accepted version of the hypothesis it was followed in its time till the criticism of Oller and Ziahosseiny (1970) who, by making such remarks that the strong version predicts errors but not all of them a learners makes in learning L2 , paved the way for the downfall of it. According to Oller and Ziahosseiny (1970) the strong version has shortcomings of which the most prominent are that firstly the strong version of CAH is limited to the error predicting caused by L1 interference only and secondly the strong criticism from the association of CAH with Behaviouristic approach. With the review of 'Skinner's verbal Behaviour' Noam Chomsky challenged Behaviourist's view of language learning and introduced the role of active mental process.

The criticism of strong version of CAH opened the way for the weak version presented by Wardhaugh (1970). He is of the opinion that the weak version 'starts with the evidence provided by linguistic interference and uses such evidence to explain the similarities and differences between the two system'. This version allows the linguist to study error after they are made by TL learner and the why such errors were made is explained by contrastive analysis. This version also developed considerable interest of the linguists but still it was limited to the linguistic interference caused errors. Keeping in view the inadequacy of the strong and weak versions of the CAH, Oller and Ziahosseiny (1970) conducted a study and based on their analysis they suggested a third version of contrastive analysis labelled as 'moderate version'. The study they conducted was to analyze the spelling errors made by the learners of English as foreign language. Their study, contrary to the strong version, concluded that those learners whose language used Roman alphabet (Spanish and Germanic) had more difficulties than those whose language used non-Roman alphabet (Chinese and Japanese). On the other hand, the weak version also proved wrong for the reason that weak version supports the notion that similarities cause positive language transfer while this was disapproved by the study conducted by Oller and Ziahosseiny (1970). Thus

both of the versions were disapproved by the mentioned two researchers and favored their own moderate version of contrastive analysis hypothesis.

Through moderate version, the two mentioned researchers declared that rather than language transfer (positive or nagetive) it is 'stimulus generalization' that plays role in learning of target language. In simple words, if there is minimum difference between the two languages then instead of positive transfer of the language, confusion arises and the learner gets caught in trouble of defining items to avoid confusion. They are of the opinion that learner mainly concentrates on different items and clearly understand and learn them rather than confusing himself. These two linguists claimed their moderate version to be the stronger one on the basis of relation of this version to the nature of human learning rather than contrast favoured by the other two versions.

Being subjective in nature and lacking scientific description criterion of Behaviouristic psychology, some of the linguists have tried to formalize how to predict the errors through contrastive analysis which is a step toward reduction of involved subjectivity.

Stockwell, Bowen and Martin (1965) first attempted to formalize the prediction stage of CAH according to which they established a hierarchy of difficulty in the light of which a linguist or a language teacher may attempt to find out the kinds of errors. They may also take help in grading their material, arranging them in effective sequence and understanding the need of drill for a particular point. In such hierarchy, they put forward eight degrees of difficulties based on language transfer principal of positive, negative and zero. To encompass grammatical difficulties they also set degrees of difficulties which were sixteen in total. Although these hierarchies were set for Spanish and English, yet they claimed about the universality of them.

Soon after them (Prator, 1967; cited in Brown, 1994) contracted the grammatical hierarchy into six different ascending order difficulty categories with its extra applicability option to phonological features of language. The following categories of difficulties are presented as cited in Brown (1994).

2.5   Phonological Characteristics and Difficulty Categories

2.5.1 Level 0: Transfer

According to this category the difference or contrast is not present in both the languages in their phonemes, lexical items or structural aspects. And on the basis of positive transfer there is no difficulty for learner in learning the item of target language. For example the sounds /p, b, t, d, m, n, ʃ, tʃ, o, i/.

2.5.2 Level 1: Coalescence

In this category the two or more language items merge together into one in the language being learned. In such case the learner has to overlook the difference which he is used to in his mother tongue. A good example of such category is the sounds /g/ /h/ which when they get combined in Pashto language become a sound /gh/ which is not present in English language and the learner has to ignore it. Another example of Pashto language regarding complete word is talib-e-ilam which is combination of two words while in English it is only the word student which is used to denote such meaning. In this sense the learner has to ignore the combination of two words and will have to concentrate on one word 'student'.

2.5.3   Level 2: Underdifferentiation

In this category the equivalent sound or item of mother tongue of the learner is not possessed by the target language and the learner can articulate but does not find such item in the language he learns. For instance the sounds **/ṛ/** and /ʔ/ is present in Pashto language while English does not contain them.

2.5.4   Level 3: Reinterpretation

When an item of first language adopts a new shape or is distributed in the language being learnt, the category it belongs to would be 'Reinterpretation'. For example the sound /l/ exists in Pashto

and in English as well but three allophones of this sound can cause problems for the learner. In English language the allophones of sound /l/ are clear /l/, dark /ɫ/, dental /l̪/ and voiceless /l̥/.

2.5.5   Level 4: Overdifferentiation

Sometime a learner face an entirely new item in target language which his articulators have no experience of practice. The reason for such newness is the complete absence of such sound in the learner's mother tongue. Good examples of such sounds in English which are not present in Pashto can be /θ/ and /ð/ sounds. In this category the learner has to start his articulators move in a new way to pronounce a new sound.

2.5.6   Level 5: Split

According to this category of difficulty an item in first language of the learner would based on one word while in the target language it would be split up into two or more items at which the learner gets confused. For instance in English the pronouns 'he' and 'she' are two different pronouns for male and female respectively but on the other hand in Pashto language for both of them the word / ɦəghǻ/ is used. Though the hierarchy of difficulty solved the problems of teacher and linguists in predicting the errors the learner can encounter but it is also a fact that such hierarchy is not exempted of shortcomings for the reason that ignorance of minor phonetic differences and allophonic variants is due in such cases. Consequently, it becomes difficult to manage which category is suitable for a particular error to sit in (Brown, 1994).

Irrespective of pros and cons attached to the contrastive analysis, it is necessary to point out that this concept is attached since years to the pedagogic world and has always helped in tackling learning difficulties specifically in phonological side of language.

2.6   English and Pashto languages in contrast

Pashto is a language, though sharing the same family with English i.e. Indo-European language family but still in its alphabetical system it totally diverts from this family and has Arabic

alphabetical system. It contains thirty two consonants in total. As the author is concerned here in this research work to the consonants thus the contrast presented would be based on the contrast of both the languages in syllable structure and their consonants. On the contrary English alphabetical system is Latin rather than Arabic. English contains twenty four consonants in total which reveals the fact that English has eight consonants less than Pashto has (Sousa, 2005).

2.6.1 English and Pashto syllable structures in contrast:

Syllable structure of English			Syllable structure of Pashto		
Words	Ph,transcription	English syllables	Words	Ph,transcription	Pashto syllables
I	/i/	V	he	/ə/	V
An	/æn/	VC	Horse	/əs/	VC
Ask	/æsk/	VCC	aspect	/aṛkh/	VCC
apples	/æpləs/	VCCC	you	/tə/	CV
She	/ʃi/	CV	hand	/las/	CVC
Sir	/sə (r)/	CVC	death	/mərg/	CVCC
battle	/bætəl/	CVCC	stealing	/ghla/	CCV
Hints	/hInts/	CVCCC	expensive	/grɑ́n/	CCVC
Free	/fri:/	CCV	round	/ghwənd/	CCVCC
Trees	/tri:s/	CCVC	mouth	/khwɫə/	CCCV
stand	/stænd/	CCVCC	Sister-in-law	/ndror/	CCCVC
pranks	/præŋks/	CCVCCC	chewing	/shkhwand/	CCCVCC
trampled	/træmpəld/	CCVCCCC			
Strew	/str<u>u:</u>/	CCCV			
Sprig	/sprIg/	CCCVC			

Sprint	/sprɪnt/	CCCVCC			
strands	/strændz/	CCCVCCC			
scrambles	/skræmblz/	CCCVCCCC			

Table: 2.6.1 English Pashto syllable structures in contrast

A quick look at the table 2.6.1 reveals that there are various similarities between English and Pashto language structures where there are twelve syllables patterns matching which are V, VC ,VCC, CV, CVC, CVCC, CCV,CCVC, CCVCC, CCCV, CCCVC, CCCVCC. Both the languages have single vowel sound and up to three initial and two final consonant clusters. English has six extra syllable patterns as compare to Pashto language. It is quite obvious that in Pashto language consonant cluster before vowel are equal to the English consonant clusters i.e. three consonants can be placed before a vowel like /strand/ in English and /shkhwand/ in Pashto but it is also a fact that English can have four consonants at the end but there is no such possibility in Pashto language where the limit is two consonants at the end of a word; for example /shkhwand/ (chewing). In short possible syllable structure in English is (c) (c) (c) v (c) (c) (c) (c) while in Pashto it is (c) (c) (c) v (c) (c).

On the other hand English language follows eighteen syllable patterns while Pashto unlike English has twelve patterns in total. The six different English syllable patterns, which Pashto language doest not posses are   VCCC, CVCCC, CCVCCC, CCVCCC, CCCVCCC, CCCVCCCC.

2.6.2 English and Pashto Consonants in Contrast

	P / B	t / d		ṭ / ḍ	k / g	q	
	m	n		ṇ	ŋ		
	F	s / z	x / ʃ	kh / gh		ɦ / ʔ	h
		ts / dʒ	tʃ / j				
	w	l / r	Y	ṛ			

Table: 2.6.2a   Consonant sounds of Pashto not present in English language

p b		t d		k g		
		tʃ dʒ				
M		n		ŋ		
	f v	θ ð	s z	ʃ ʒ		h
		r		j w		
		l				

Table: 2.6.2b   Consonant sounds of English not present in Pashto language

The tables above reveal the differences in both the languages in their consonant sounds. It is obvious that the sounds highlighted in the table of Pashto consonants are not present in English and the one highlighted in the table of English consonants are not present in Pashto. The English consonants not present in Pashto are /θ, v, ʒ/ while those that are not present in English are / ṭ, ḍ ṇ, kh, gh, ṛ, x, ɦ, ʔ, y, ts,   /. This reveals the fact that Pashtun learner of English language needs to learn four more consonant sounds and has to move his articulators in a newer way. On the other hand, there are thirteen Pashto consonant sounds that are not present in English which implies that the Pashtun learner of English has to ignore these twelve sounds so as to restrict the interference of such sounds while pronouncing the nearest of them in English. Following is the detailed individual description of consonant sounds in contrast:

Coming towards plosive sounds /p/ and /b/ which are voiceless and voiced respectively exist in both the languages. /p/ in Pashto is un-aspirated in initial, middle and final position. While it is un-aspirated in final, middle after the sound /s/ and same if placed before stressed vowels of English. /b/ in both the languages is voiced and has no prominent difference.

Alveolar consonants /t/ and /d/ exist in both the languages and appear voiceless and voiced respectively. In Pashto language /t/ remains un-aspirated in initial, middle and also final position of the syllable. Like the plosive /p/ in English, the sound /t/ also remains un-aspirated in initial, at middle after /s/ sound and also un-aspirated before an unstressed vowel sound. The sounds /ṭ/ and /ḍ/ which are retroflex consonants of Pashto language do not exist in English and are different than the English /t/ and /d/ sounds. The stop / / is pharyngeal plosive which only exists in Pashto language.

The sounds /k/ and /g/ are also plosive sounds which are velar plosives in English and also in Pashto as well. They are voiceless and voiced respectively. Slightly palatalized if appear before

front vowel but in Pashto language they are more palatalized in initial and middle position before front vowels.

The respectively voiceless and voiced fricative /f/ and /v/ exist in English but the voice fricative /v/ does not exist in Pashto which creates problems for the Pashtun learners of English. /f/ sound is common in both languages but for Pashto language the sound /f/ is non-native and has been borrowed (Tegey and Robson, 1996). It is often mispronounced by the Pashtun learners of English. For instance in informal or formal uneducated speech people use /p/ sound instead of /f/. In Pashto they say /pasal/ instead of /fasal/ meaning 'crop' in English. While in English language they say /ferfect/ instead of /perfect/. On the other hand fricative /v/ does not exist in Pashto and learners mistakenly pronounce /w/ sound instead of /v/. Thus both the fricatives /f/ and /v/ are can create difficulties for Pashtun learners of English. The fricatives /s/, /z/, /ʃ/ and /ʒ/ exist in English but the last one i.e. /ʒ/ does not exist in Pashto. They are voiceless, voiced, voiceless and voiced respectively in English and similar in Pashto except the last one. Another fricatives is / **θ/** sound. This voiceless sound exists in English only and for Pashtun learners this sound can cause difficulties. The sounds /h/, **/ɦ/** and **/ʔ/** which are uvular fricatives exist in Pashto but in English only the sound /h/ exists. The one common in both the languages is articulated in the same way.

In the case of nasals /m/, /n/ and /Ŋ/ and / **ṇ/,** the first three are present in English and fourth consonant English language lacks. Pashto unlike English contains all these consonant sounds. /m/ is bilabial nasal,/n/ is alveolar nasal while /Ŋ/ is velar in both the languages. The difference lies in the use of last one where, contrary to Pashto, it cannot begin a word. In Pashto a good example may be /Ŋgor/ that is 'daughter-in-law in English. The fourth velar nasal mentioned above / **ṇ/** exists only in Pashto and it is retroflex consonant.

Further on the two affricates /ʧ/ and /ʤ/ sounds exist in both English and Pashto. They both are voiceless and voiced in both the languages. But they differ in articulation as these sounds are post-

alveolar in English while in Pashto language the sound /ʧ/ is palatal affricate and the /ʤ/ is dental affricate. Pashto, unlike English, has two more affricates which are **/ts/** dental affricate and **/j/** palatal affricate. They are respectively voiceless and voiced.

Regarding the consonant sound /r/ there is a considerable difference in the both the languages. Both articulation and allophonic difference exist in both the languages regarding the mentioned phoneme. Firstly, /r/ is alveolar approximant in English while in Pashto it is dental. Then after articulation, there is variation in the allophones of this sound. In English it allophonic variants are /ɾ/ which appears between the vowels like in 'very', /ɽ/ called retroflex tap which appear as in 'card' etc. and then /r/ a voiced continuative as in 'serene'. While in Pashto these allophonic variants are /R/ which appear in final positions and remains unvoiced as in '/kheR/ meaning 'Donkey'; /ř/ it appears inter-vocally as in /mařan/ 'meaning snakes' and third variant /r/ which is called trill allophone that appears in initial and middle positions as in /ruk/ meaning 'lost' and /marg/ meaning 'death'. This variation of allophones can cause difficulties for Pashtun learners of English.

Then the lateral approximant of English which has four allophones clear /l/ , dark /ɫ/, dental /l̪/ and voiceless /ɬ/. The first allophone of /l/sound, clear /l/ appears in word initial position like in the word 'love'. Dark /ɫ/ comes at final position of the word like in 'rival' and inter-vocalically as in 'silk'. Then dental /l̪/ also involves teeth in its articulation like in the word 'wealth' and voiceless /ɬ/ as in the word 'clay'. While in Pashto has the same sound /l/ and its variants. One is clear /l/ as in /lag/ meaning 'little' then dark /ɫ/ as in /awal/ meaning 'first' and voiceless / ɬ/ as in /plar/ meaning 'father' and the dental /l̪/ as in the word /mulk/ meaning 'country'. Thus both the languages have the same allophonic variants of sound /l/.

The sounds / **ṭ, ḍ ṇ, kh, gh, ṛ, x, ɦ, ʔ, y, ts, ,** / are not present in English thus Pashtun learner of English has to ignore these sounds and English learner of Pashto has to make his articulators used to of such sounds for the correct pronunciation of Pashto words. The articulation manner and place of such sounds have been given in Pashto consonants above with their placement in syllables under the title syllable structure of Pashto.

Other than the given account of the contrast between the two languages, the non-native consonant sounds of Pashto causes problem for Pashtun learners of English which are necessary to be mentioned here. The sounds **/p, f, ð/** are not properly pronounced rather errors occur in such cases as mentioned above in consonant system of Pashto section. Though according to Tegey & Barbara (1996), educated Pashtuns in informal and uneducated Pashtuns in both formal and informal speech mispronounce such sounds but the author has personally observed that educated Pashtuns, even in formal situations, sometime pronounce them wrongly.

Chapter 3

Research Methodology

In this chapter the author will present the objectives of the research along its significance. This will be followed by the detailed procedure of research methodology employed for this project with limitation of this research study at the end.

3.1 Objectives of the research

Through contrastive analysis of Pashto and English language, the objective of this study is to investigate the consonantal differences that cause problems for Pashtun learners/speakers of English and to identity major consonantal sounds which create problems for intelligibility and learning of English to help facilitate the process of learning with pedagogical implications in view for the linguists and teachers of English.

3.2 Research questions:

1. To investigate the consonants which cause difficulties in pronunciation for Pashtun speakers of English and also interfere with their intelligibility?

2. To find out whether there exists any role of L1in pronunciation of the consonants which cause difficulties for Pashtuns speakers while using English consonants?

3. To investigate whether living in native English environment has any impact on the pronunciation of the study group with respect to these consonants?

3.3   Significance of the study

Regarding its importance, the current study has various dimensions to discuss. Firstly Pashto is a language of millions of Pashtuns of a territory where Britishers have ruled or influenced for a considerable time and the medium of instruction and official language of this territory is English. In this regard, Pashtuns need to have at least threshold level of command on English and for such reasons the research studies based on comparison of both the languages are scarce and are in need to be conducted.

Secondly, the research including Pashto language is very limited on one hand and on the other hand it is scarce in the field of phonetics and phonology. As the current study includes pronunciation related fields of both the languages thus it can, to an extent, enrich the field where there is severe need of research study.

Thirdly the author, during his stay in UK and Pakistan, has observed that Pashto learners of English have difficulties in pronunciation of certain consonants of English which affect their intelligibility and in this regard identification of such consonants and notifying them through this research can contribute to the pedagogical aspects of English language teaching to Pashtun learners.

Observing such difficulties and the need of the research in this particular field, the researcher has conducted the current study to investigate the consonants which are difficult for the Pashtun learners of English including the investigation of the role of mother tongue in such difficulties. The researcher hopes that the findings of the current study would be able to turn up with a set of ideas helpful, to English teachers in general and Pashtun EFL teachers in particular, to minimize the difficulties arise to the Pashtun learners of English in their pronunciation of English consonants.

3.4   Participants

This current research included two distinct groups of Pashtun speakers. Group one included four Pashtun students who were in London for at least five years and were between the ages 20-31. They all belonged to the NWFP province of Pakistan and were there in London for business studies in London College of business studies after the completion of 12 years of formal education in Pakistan. They all had minimum 6 bands in English speaking module. They all were males as there was no Pashtun female available for this project. These participants were recruited through author's friend's contacts.

The second group of participants included four Pashtun students belonging to NWFP province of Pakistan. It must be noted that this group, unlike group one, had not spent time in native English environment and they also had completed their 12 years formal education which is called 'Intermediate' in Pakistan. They had studied English as their compulsory subject in these twelve years of education. Other than this, they were interested to go abroad for further education and had taken IELTS with minimum 6 bands in spoken module. They were recruited through the author's contacts with student consultancies in Peshawar as these consultancies were processing their admissions in UK colleges or universities. These participants were the students of City University of Science and Information Technology Peshawar. Moreover, these two groups had been selected from two distinct environments in order to investigate the role of native English environment on the pronunciation of Pashtun speakers of English.

3.5   Instruments for data collection

3.5.1 Questionnaire

The first instrument used for data collection was questionnaire. Questionnaire being less expensive to administer and easy to distribute and send to the participants, was selected (Polansky, 1960). Questionnaire is easy to analyse once received complete from the respondents

and little training is needed for the researcher in the use of this instrument as compared to other data collection tools (Wilkinson & Birmingham, 2003). In order to know about the pronunciation of both Pakistani and London Pashtun speakers of English, the author first designed and presented a questionnaire to the participants to know their interest and to know the value of pronunciation, their level of satisfaction, and response about facing intelligibility problems.

intention to improve in future and past attempts to improve their pronunciation. The data collected through this questionnaire was intended to note down the previous experiences the participants had gone through in their interaction. This technique was helpful as the speakers of English themselves contributed in identifying their difficulties and then further verified by other data collection instruments. It is a fact that personal knowledge of one's difficulties help considerably in further formal investigation of such problems the speakers of a language come across.

3.5.2 Reading 1

Other than the questionnaire, the use of elicited imitation has also been used to elicit pronunciation quality by allowing the participants read aloud (Seliger and Shohamy,1989). Studies showed that reading aloud with targeted sounds seeded in the reading text, is a helpful procedure in developmental and variationist L2 phonology studies (Dickerson, 1975 cited in Menn & Ratner, 2000; Sato, 1984 cited in Edwards & Zampini, 2008; Major, 1987; Tarone, 1979). The second instrument used for data collection was the reading of 15 sentences which included those consonants which were newer, as identified through literature review, for Pashtun speakers of English. This instrument included those consonant sounds of English which were not present in Pashto (as presented in literature review) and accordingly were considered to be problematic for Pashtun speakers of English. This instrument was designed by using minimal pairs of the relative consonant sounds.

3.5.3 Reading 2

The third instrument used for data collection was the same reading of 15 sentences but the consonant sounds included were different. In this reading the consonant sounds that were included belonged to the group of sounds called non-native consonant sounds in Pashto language. As identified in literature review, some sounds in Pashto language are non-native and cause difficulties for Pashtun learners of English for the reason that such sounds are native for English but Pashto language has borrowed them from other languages. Though literature review contains many non-native sounds Pashto language has borrowed but 'Reading 2' includes only those sounds which are shared by both English and Pashto.

3.6 Data collection Procedure

The research started with getting informed consent of the participants where the participants were completely explained the purpose of the project and the process of data collection. They were told how the data would be collected and how their services would be availed. They were also informed and assured that their identity would be kept confidential in the presentation of the report of this project. They were, first, given the information sheet so as to ensure that they are fully informed of what they are going to do and why. Further on, they were given the 'Consent Form' which was to be read and signed by them after being fully agreed with the process and procedure of the data collection.

The data collection process was completed in three stages. The first stage of this process started with collection of data through questionnaire containing 5 questions based on the participants' response they obtained during their interaction about the problems they felt in their pronunciation. The questionnaire also included the interest of the participants about

pronunciation and the past attempts to improve their pronunciation and the future intention of improving it.

After the completion of first step, the author prepared 'Reading 1' on the basis of literature review and the response given by the participants through the questionnaire. This step was administered by the author through elicited speech method by asking them to go through the given 15 sentences loudly.

This was done in order to identify the errors in the pronunciation of Pashtun speakers of English for those consonant sounds which were absent in Pashto language. Both the groups i.e. Londoner Pashtuns and Pakistani Pashtuns went through the same sentences and consonant sounds. Both the groups were taken through this reading in order to understand the impact of native and non-native environment on the improvement of pronunciation.

Reading 1 was followed by the third step of research where the participants had to go through the second set of sentences, 15 in total. This set of sentences was prepared on the basis of literature review done earlier in which some sounds in Pashto language were identified as non-native sounds and borrowed from other languages by Pashto. On the basis of such review the non-native sounds were included in the sentences to identify the errors caused by these sounds. Same elicited speech method by asking them to read such sentences aloud was done. The two reading sets were separated in order to know which group of consonants (non-native Pashto sounds or newer sound for Pashtun speakers) cause difficulties and why.

3.7   Limitations of the research

In conducting this research, the author came across numerous problems which interfered with the process of this study. The major problems, the author faced, were the limited work done on Pashto

language. Most of the work done was related to the Pashto spoken in Afghanistan rather than the one in Pakistan which the author was concerned about.

Second important aspect to underscore is the lack of research books on Pashto language by Pashto writers. In the first step while the author was in UK, the access to the work of Pakistani Pashtun linguists on Pashto was really difficult. For such reasons, the author got them sent from Pakistan. During author's stay in Pakistan, the problem of universities' closing was also a major problem. Due to kidnapping of vice chancellor of Islamia College University Peshawar, the strikes from all the universities also interfered with the project.

Thirdly, the selection of suitable participants in UK was also a limiting factor in this study. The author through his contacts and by searching colleges accessed the participants who possessed the level required in English and were ready to participate in the study after taking out time from their busy life in London. Moreover, the participants, with length of considerable time (around five years in UK), was also a challenge for the author. Similarly, the participant selection in Pakistan was also difficult for the reason that for ordinary learners of English there is no measuring system to know about their level of English. Thus, finally it was decided to find those students who had achieved at least 6 bands in speaking module of IELTS and had not spent time in native environment. Such participants were selected through the help of author's contacts with student consultancies for abroad. IELTS in Pakistan is done only for the purpose of going abroad for education. Other than this testing system, there is no suitable system to measure the English proficiency of the students.

Chapter 4

Findings and Analysis of the Data

This chapter of the report is based on three different and interconnected sections. Section A is based on the findings of the same questionnaire used for five Londoner Pashtun English speakers and five Pakistani Pashtun speakers of English. In this questionnaire they were asked about their past attempt to improve English pronunciation, current level of pronunciation, the comfortability of their listeners and the future interest of participants to improve their pronunciation. Sections B presents the results of instrument 'Reading 1' which was basically the reading of 15 sentences by both groups of the participants. Here the sentences were based on frequent usage of those consonants which were identified as new for Pashtun speakers of English and were identified in literature review of this research project. This reading instrument was for all the ten participants of both the groups. And at the end the third section i.e. section C presents the findings of the third instrument which was also a reading of 15 sentences but actually different from focus on those consonants in Reading 1. Reading 2 was basically designed to focus on those consonants of English which were present in both English and Pashto language but were not the native consonants of the later language. These consonants were originally the borrowed consonants of Pashto from other languages.

4.1 Section A: Findings of the questionnaire

(Pakistani Pashtun Participants)

Other than the Londoner group of participants, same questionnaire was presented to Pakistani Pashtun Speakers in order to know what they say about their pronunciation level they apply while speaking English in Pakistan and particularly in Khyber Pukhtunkhwa province.

4.1.1 Pakistani Pashtun speaker A

Participant 'A' from the PPSs was not aware the response of his listeners or their comfortability. But according to him whenever he would consult phonetic dictionary his pronunciation appeared wrong. This was more than often for him. He had not attempted to take up a course for its improvement and wanted to improve current level in future.

4.1.2 Pakistani Pashtun speaker B

Participant 'B' was a bit different that the participant 'A' for the reason that he could understand that why his listeners are easy to understand him. He responded to an open ended question that all of his community spoke in Pashtun accent and were comfortable with each other in this case. He intended to improve it further. In response to the question of future improvement, he also wrote that in UK he might be having pressure to pronounce clearly so he wanted to engage himself in a pronunciation course.

4.1.3 Pakistani Pashtun speaker C

Participant 'C' like the two above participants had not participated in any pronunciation course and was not satisfied with his current level. According to him his listeners were comfortable for they were Pashtuns and could understand him easily. He seldom faced the problem of repeating his utterance based on pronunciation issues. He was interested to improve it in UK as he thought he might get better teacher there. In other words it can be said that his did not care about pronunciation in Pakistan but he wanted to refine it in UK.

4.1.4 Pakistani Pashtun speaker D

The fourth PPS 'D' had a different approach towards pronunciation. He had gone through a pronunciation improvement course in a language centre and did not feel any need to improve his current level. He was also sure that his listeners were comfortable with his pronunciation. He was not interested to take up a course in future. He thought that his level will itself improve in native environment.

4.1.5 Pakistani Pashtun speaker E

Participant E in PPS group was also a confident participant and considered his level of pronunciation suitable to deal Pakistani community. He was satisfied with his current level for he had gone through a course of 'British accent development'. According to him his listeners were comfortable but sometime they asked to repeat something because British accent was difficult for them to understand. For future attempt he was willing if there arise any need in UK.

Summary of the findings of the questionnaire (Pakistani Participants)					
Participants	Past attempt for improvement of pronunciation	Current level needs improvement	Comfortability of listeners	Repetition request	Future intention To improve pronunciation
PPS A	No	Yes	Don't know	Don't know	Yes
PPS B	No	Yes	No problem	Yes but seldom	Yes
PPS C	No	Yes	Yes	Not faced	Will improve in UK
PPS D	Yes	No	Yes	No need	No
PPS E	Yes	No	Yes	Yes	May be if needed

Table   4.1a Summary of the findings of the questionnaire   *(PPS: Pakistani Pashtun Speakers)

The responses of the second group of participants reveal almost the same story as the one of group one. 70 percent of the participants showed interest in improving current level of pronunciation. Moreover Pakistani Pashtun Participants who had been to UK could not understand what should be the level of pronunciation as they were in a community where the accent and pronunciation level was almost same. They were easy with each other but they could feel that the requirements in this regard in UK might be different and they might need a course or practice there.

(Londoner Pashtun Participants)

4.1.6 Londoner Pashtun speaker A

Participant 'A' from Londoner Pashtun speakers had not gone through any pronunciation improvement course but was eager to improve the level of pronunciation so as to smoothly communicate with native and non-native speakers in London. He was not clear whether his listeners were comfortable with his pronunciation or not. Moreover he was also not sure whether he was asked by his listeners to repeat his uttered words or sentences. It can said that either the speaker was not careful regarding his listeners or then might his listeners didn't asked him to repeat. For the future LPS A was interested to improve his pronunciation. Overall this participant was not fully confident over his pronunciation level and wanted to have better pronunciation than the current.

4.1.7 Londoner Pashtun speaker B

According to the findings of the questionnaire London Pashtun speaker 'B', had tried to improve his pronunciation by participating in a pronunciation course in a language centre. But still he thought that his current level needs improvement. Although he was not sure about the comfortability of his listeners but he was aware that sometime somebody would ask him to repeat

what he would utter. Even in future he was interested to continue improving his pronunciation level. Overall participant B here considered himself capable to deal with native environment yet he did not consider it sufficient.

4.1.8 Londoner Pashtun speaker C

LPS 'C' also wanted to improve his current level of pronunciation for neither in past he had tried formally to improve nor he was satisfied from his current pronunciation level. He had felt that in front of native speakers he faced intelligibility problems and only in native speakers he had felt the problem to repeat or clarify the utterances. He was interested, in future, to take a course to deal appropriately with this issue. The researcher by understanding the response of the participant 'C' came to the conclusion that he was not confident in front of native speakers and needed improvement.

4.1.9 Londoner Pashtun speaker D

Participant 'D' among London Pashtun Speakers was a bit different and confident individual. He had no intelligibility problem in front of natives and thought his current level to be the sufficient. His ability to pronounce appropriately was basically the reason of his past attempt to improve it. According to him he had face the problems of repeating the words or sentences again and again to clarify on pronunciation basis. He was not interested in future to attempt through a course or program to improve his pronunciation level.

4.1.10 Londoner Pashtun speaker E

The fifth and the last of the Londoner Pashtun Speakers was the participant 'E' who had the same problems as participant 'B'. This last and fifth participant had not gone through any particular course of pronunciation development and was not satisfied from his current level. He was quite

clear that his listeners were not comfortable with his pronunciation and he had to repeat often what he would utter in front of others though not always but sometime. He wanted to improve it in the future by take up a course.

Summary of the findings of the questionnaire (Londoner Pashtun participants)					
Participants	Past attempt for improvement of pronunciation	Current level needs improvement	Comfortability of listeners	Repetition request	Future intention To improve pronunciation
LPS A	No	Yes	Don't know	Don't remember	Yes
LPS B	Yes	Yes	Not sure	Sometime	Yes
LPS C	No	Yes	Natives have problem sometime	Yes from natives only	Yes
LPS D	Yes	No	Yes	No need	No
LPS E	No	Yes	No	Yes but sometime	Yes

Table   4.1b Summary of the findings of the questionnaire

(LPS: Londoner Pashtun Speakers)

Keeping in view that above findings of the Londoner Participants, it becomes obvious that they, in native environment, despite living for around five years face the problems of intelligibility and are in need of improvement of their current level of pronunciation.

4.2   Section B: Findings of the 'Reading 1'

This section presents the findings of Reading 1 which are based on understanding whether the consonants absent in Pashto language cause any difficulty for Pashtun speakers in their pronunciation while speaking English. In this section, the Londoner Pashtun Participants were given fifteen sentences to read aloud where the consonant sounds which were present in English but not Pashto were added in the form of minimal pairs / ɵ, t, v, w, ʒ, j/. Pashtuns even educated ones make these pronunciation errors during their speech and even in formal situations. These were the personal observations of the author during his interaction with Pashtun community including friends, relatives, classmates, colleagues and others. On one hand reading of these sounds could reveal whether Pashtuns had problems pronouncing such sounds and on the other hand the author could confirm the observed mistakes during interaction with Pashtun community. This part of the section B is based on the findings resulted during elicited reading of Pakistani Pashtun Speakers. Here the author presents the percentage of the way Pakistani Pashtun Speakers pronounced those sounds which appeared difficult as revealed by the literature review. Moreover, the overall percentage of an individual participant's correct response and overall usage of an individual sound is also the part of the given detail.

4.2.1   PPS A

First participant of Pakistani Pashtun Speakers group appeared to be very weak in almost all of the sounds. Sound / ɵ / on the part of him was correct only 20% times as compared to its 80% times incorrectness. He pronounced sound / ɵ / as sound /t/ 80% time which could not be called as satisfactory level of pronunciation. Moving onward, sound /v/ was pronounced by him 60% times correct to its 40% time incorrect sound /w/. This sound was also not a good sign of a

satisfactory pronunciation. The last sound /ʒ/ was also pronounced unsatisfactorily for it was correct only 40% times. The overall correctness ratio of all the sounds on the part of PPS A was 40%. This is below average and the participant needed more efforts and notable improvement.

4.2.2 PPS B

In comparison to PPS A, PPS B had more comfortable articulators in pronouncing / θ/ sound. This participant was correct 80% to its incorrectness 20% times, which appeared in the form of sound /t/. For the sound /v/ this participant showed completely opposite response. Sound /v/ properly pronounced only 20%times while its nearest sound /w/ took its place 80% times. The participant needed much more improvement and efforts to take over this problem. Moving forward, sound / ʒ / was also a problem for this participant for he appeared below average in its pronunciation and pronounced it as sound /j/ 60% times. Overall, the correctness percentage was 47% which was a clear sign of weak pronunciation for him.

4.2.3 PPS C

Participant C of Pakistani Pashtun Group was though weak but was better than Participant B of the same group. The first two sounds / θ / and /v/ he was correct 60% times each and 80% correct in pronouncing sound / ʒ /. Overall, he scored 67% accumulative in all the sounds

4.2.4 PPS D

PPS D appeared with a different score in all the sounds pronunciation. He was correct 40%, 20% and 80% in pronouncing sounds / θ /, /v/ and / ʒ / respectively. Overall, correct sound production was 47% which revealed him a weak participant like PPS B.

4.2.5 PPS E

Like all the other members of the group, participant E also exhibited weak results. The sounds / ɵ /, /v/ and / ʒ / pronounced 60, 40, and 40 percent respectively. Total correctness percentage was 47%. This unimpressive result exhibited the need of progress.

Now the individual sound correct pronunciation from all the five participants is presented. Here the researcher noted that sound / ɵ/, /v/ and / ʒ / were pronounced correctly by all the participants 52, 40 and 56 percent respectively. This record also demonstrated that the Pakistani Pashtun Participants were weak in appropriate pronunciation and needed further development. A strange point to mention here is the intelligibility issue. All of the members of this group could easily understand each other. The major reason they presented in questionnaire was that they have same background, level, and culture responses that is why they can easily understand each other. According to them they are used to of this pronunciation.

English consonants absent in Pashto		Summary of findings of 'Reading 1'									
		PPS A		PPS B		PPS C		PPS D		PPS E	Overall %age of a sound
ɵ	Pronounced as / ɵ/	1/5	20%	4/5	80%	3/5	60%	2/5	40%	3/5	60%	**52%**
	Pronounced as /t/	4/5	80%	1/5	20%	2/5	40%	3/5	60%	2/5	40%	**48%**

V	Pronounced as /V/	3/5	60%	1/5	20%	3/5	60%	1/5	20%	2/5	40%	**40%**
	Pronounced as /w/	2/5	40%	4/5	80%	2/5	40%	4/5	80%	3/5	60%	**60%**
Ʒ	Pronounced as /Ʒ/	2/5	40%	2/5	40%	4/5	80%	4/5	80%	2/5	40%	**56%**
	Pronounced as /j/	3/5	60%	3/5	60%	1/5	20%	1/5	20%	3/5	60%	**44%**
	Total correct responses and its %age	06/15	40%	7/15	47%	10/15	67%	7/15	47%	7/15	47%	

Table 4.2a Summary of the findings of 'Reading 1'

This second part of the section B is to demonstrate the results of Londoner Pashtun Group. They were also presented the same reading sentences which were given to Pakistani Pashtun group. Below are findings of Londoner group.

4.2.6 LPS A

First participant (as identified as Londoner Pashtun Speaker A) when given the sentences to read, he appeared to be 73% correct in the pronunciation of the given sounds. The first sound /θ/ was pronounced by him 60% times as compared to its nearest sound /t/ which was 40%. This ratio revealed appropriate pronunciation a little above of half of the total responses elicited. Although

this ratio was not a good one still under the context the participant could be understood easily. Further when given the other two sounds /v/ and /w/ it appeared that the correct pronunciation ratio was same 60:40. Here in minimal pairs (like vine and wine) could confuse the listeners. The final pair of sounds / ʒ/ and /j/ had a correct ration of 100:00 respectively. Participant A had pronounced it completely accurate which signified that he had no problem in pronouncing this sound correctly.

4.2.7   LPS B

As compare to LPS A, LPS B was had more problems in pronouncing / ɵ/ sound. The correct response on the part of participant B was 40% than to 60% of the nearest sound /t/. Further on the LPS B's going through the second pair of sounds /v/ and /w/ revealed that he was more confident in correctly pronouncing sound /v/ for the reason that he correctly pronounced in 80% times more than the 20% times incorrect pronunciation of /v/ sound as /w/. The findings of the last pair were also satisfactory where the author found that LPS B pronounced /ʒ/ 60% times correct than that of 40% times incorrect which resulted in the form of sound /j/. Overall correct responses of the LPS B were 60%, which revealed that this speaker was only satisfactory and did not have very outstanding pronunciation.

4.2.8   LPS C

The third participant (LPS C) was better than rest of the participants of his group. He came up with 80 % correct responses as compared to what he pronounced incorrect 20%. This ratio revealed him to be a confident speaker regarding his pronunciation. On individual level of sound performance, he appeared 100% correct in the pronunciation of sound / ɵ/ and all his responses were up to the mark. In the pronunciation of the sound /v/ he was correct 80% times to 20%

times incorrect response in the form of sound /w/. The last sound **/ ʒ /** was 60% correct to 40% incorrect in the form of sound /j/. These all the sounds were above average and satisfactory level.

4.2.9 LPS D

Participant LPS D was more clear and fluent in the usage of sounds /ɵ/ and / ʒ/ whereas less confident he revealed in pronouncing sound /v/. Regarding detail in percentage, this participant correctly pronounced the sound / ɵ / 80% times correct than its 20% incorrect use of the mentioned sound. Moreover, the weakness appeared for sound /v/ where the participant showed 60% correctness and 40% he pronounced it as /w/ sound. The last sound / ʒ/ he pronounced better than the previous and hence appeared 80% correct as compared to its incorrect use in the form of /j/ sound. Overall, the ratio of correctness was 73% in the pronunciation of all the three sounds.

4.2.10 LPS E

The last participant of the Londoner group appeared to be weak in pronouncing sound /ɵ/ where he stood a little above than half of the percentage. He pronounced it 40% times as sound /t/ which revealed his weakness in this regard. Further more, this participant appeared to have made his articulators more comfortable for sounds /v/ and /ʒ/ as his correct responses were 80% of total times of pronunciation. Overall, his ratio of correctness of all the sounds was 73:27.

Finally the author will present the individual sound correct pronunciation from all the participants. Sound / ɵ/ was correctly pronounced by all the individuals 68% times than the incorrect 32% times. The sound /v/ appeared 72% times correct from all the participants usage.

At the end all the five participants pronounced sound **/ʒ/** 76% times correct. This last sound was the highest correctly pronounced sound from all the five Londoner participants.

English consonants absent in Pashto		Summary of the findings of 'Reading 1'									
		LPS A		LPS B		LPS C		LPS D		LPS E	Overall %age of a sound
θ	Pronounced as / θ/	3/5	60%	2/5	40%	5/5	100%	4/5	80%	3/5	60%	**68%**
	Pronounced as /t/	2/5	40%	3/5	60%	0/5	-----	1/5	20%	2/5	40%	**32%**
V	Pronounced as /V/	3/5	60%	4/5	80%	4/5	80%	3/5	60%	4/5	80%	**72%**
	Pronounced as /w/	2/5	40%	1/5	20%	1/5	20%	2/5	40%	1/5	20%	**28%**
ʒ	Pronounced as /ʒ/	5/5	100%	3/5	60%	3/5	60%	4/5	80%	4/5	80%	**76%**
	Pronounced as /j/	0/5	-------	2/5	40%	2/5	40%	1/5	20%	1/5	20%	**24%**
	Total correct responses and its %age	11/15	73%	9/15	60%	12/15	80%	11/15	73%	11/15	73%	

Table 4.2b Summary of the findings of 'Reading 1'

4.3   Section C: Findings of the 'Reading 2'

Section C is founded on the results appeared during the 'Reading 2' which, actually, was reading of those sounds which were considered as 'non-native' sounds of Pashto language. It means Pashto language has borrowed them from other languages. Thus the researcher took them in to understand whether these non-native sounds (/p/, /f/ and /ð/) can cause any problem for Pashtun Speakers of English. Furthermore, there were many other sounds which were non-native in Pashto but the author considered these three worth using for the reason that these sounds are present in English language.

4.3.1   PPS A

Taking into account the first participant, the sounds /p/, /f/ and /ð/ he pronounced 60, 20 and 80 percent correct respectively. The first and third sound was satisfactory and very good respectively but the sound /f/ exhibited the weakness of the participant. Overall the participant was average. He scored 53% in the correct production of all the three sounds.

4.3.2   PPS B

This participant revealed his phonetic ability to be an outstanding one for he pronounced all the three sounds 87% times correct. He had complete command on sound / ð/ (100%) and the sounds /p/ and /f/ he pronounced 80% times correct.

4.3.3   PPS C

Participant C was also an average participant for he scored 60% in aggregate. The sounds /p/, /f/ and /ð/ he pronounced 40, 60 and 80 percent times correct. These findings disclosed that the

speaker needed further efforts to improve these sounds particularly /p/ and /f/ needed more practice.

4.3.4 PPS D

Participant D was better than A and C. He was above average and for all the three sounds he scored 73 percent in aggregate. On individual sound level, this participant pronounced sounds /p/, /f/ and / ð/ 80, 40 and 100 percent respectively. The individual score of each sound revealed that PPS D was strong on sound /ð/ and /p/ but lacked proficiency for sound /f/. He was below average in this case.

4.3.5 PPS E

The last participant E in this group was weaker than all the rest of the same group. He appeared with only 47 percent aggregate score in all the three sounds. He pronounced /p/, /f/ and /ð/ 20, 60 and 60 percent respectively. His ability to pronounce /f/ and /q/ was better than pronouncing /p/ sound.

The accumulative score for individual sound from all the participants also emerged around average and not impressive except sound /ð/ where the percentage is 84 percent. All the participants collectively pronounced sound /f/ 56, /p/ 52 and /ð/ 84 percent respectively.

Pashto non-native consonants	Summary of the findings of 'Reading 2'					
	PPS A	PPS B	PPS C	PPS D	PPS E	%age

F	Pronounced as /p/	3/5	60%	4/5	80%	2/5	40%	4/5	80%	1/5	20%	**56%**
	Pronounced as /f/	2/5	40%	1/5	20%	3/5	60%	1/5	20%	4/5	80%	**44%**
P	Pronounced as /f/	1/5	20%	4/5	80%	3/5	60%	2/5	40%	3/5	60%	**52%**
	Pronounced as /p/	4/5	80%	1/5	20%	2/5	40%	3/5	60%	2/5	40%	**48%**
ð	Pronounced as / ð/	4/5	80%	5/5	100%	4/5	80%	5/5	100%	3/5	60%	**84%**
	Pronounced as /d/	1/5	20%	0/5	-------	1/5	20%	0/5	-------	2/5	40%	
	Total correct responses and its %age	08/15	53%	13/15	87%	09/15	60%	11/15	73%	07/15	47%	

Table 4.3a Summary of the findings of 'Reading 2'

4.3.6 LPS A

In the second reading phase, the LPS A scored impressively hundred percent in the correct production of all the sounds. He pronounced sounds /p/, /f/ and /ð/ completely accurate. This was a good sign as compared to Pakistani Pashtun speakers group. Overall he pronounced all the sounds 100 percent accurate.

4.3.7 LPS B

This speaker also showed better results. He appeared to be a strong speaker in the sounds equally. He pronounced all the three sounds (/p/, /f/ and /ð/) 80 percent correct. His overall score in all the three sounds was 87 percent.

4.3.8 LPS C

Like participant B of this group, this participant also had good command on pronouncing sounds /f/ and /ð/ but the sound /p/ was difficult for him for he produced it 60 percent correct. His ability to pronounce /f/ and /ð/ was impressive. The aggregate score for fall the three sounds on the part of this participant was 87 percent. He needed improvement only in the production of sound /p/.

4.3.9 LPS D

Participant D also scored 87 percent in aggregate. He pronounced all the sounds quite proficiently. He pronounced sound /p/ 100 percent correct and the sounds /f/ and /ð/ 80 percent correct respectively.

4.3.10   LPS E

This last participant was also an outstanding participant regarding the production of the given sounds. Unlike participants B, C, D he scored better and like participant A he pronounced all the three sound completely correct. His individual and aggregate score was 100 percent.

At the end, the overall score of all the participants of this group for an individual sound is presented. Sound /f/ was pronounced by all the three participants 88% times correct. Sound /p/ and /ð/ were respectively pronounced by all the participants 92% and 96% correct. In other words, it can be said that all the participants appeared quite proficient and pronounced all the three sounds outstandingly.

Pashto non-native consonants		Summary of findings of 'Reading 2'									
		LPS A		**LPS B**		**LPS C**		**LPS D**		**LPS E**	**%age**
F	**Pronounced as /p/**	5/5	100%	4/5	80%	3/5	60%	5/5	100%	5/5	100%	**88%**
	Pronounced as /f/	0/5	------	1/5	20%	2/5	40%	0/5	------	0/5	------	**12%**
P	**Pronounced as /f/**	5/5	100%	4/5	80%	5/5	100%	4/5	80%	5/5	100%	**92%**

	Pronounced as /p/	0/5	------	1/5	20%	0/5	------	1/5	20%	0/5	------	**8%**
ð	Pronounced as /ð/	5/5	100%	5/5	80%	5/5	100%	4/5	80%	5/5	100%	**96%**
	Pronounced as /d/	0/5	------	0/5	20%	0/5	-----	1/5	20%	0/5	------	**4%**
	Total Correct responses and its %age	15/15	100%	13/15	87%	13/15	87%	13/15	87%	15/15	100%	

Table 4.3b Summary of the findings of 'Reading 2'

Chapter 5

Discussion and Conclusion

This concluding chapter presents the discussion on the findings presented in earlier chapter and then conclusion. It takes start by presenting an overview of the objectives decided to start research on followed by the comparison of findings of this study with other similar studies. At the end of this comparison, the author presents the relation between objectives and how this research work answers the objectives of it. This is followed by the theoretical and practical implications of the research conducted with suggestions for further study at the end.

5.1   Discussion

Fundamentally, what turned up during the analysis of the findings is in support of the fact that phonological aspects of Pashto language have a considerable role in intelligibility of Pashtuns' speech when they use English. This study also highlighted the consonants which most frequently create pronunciation difficulties for Pashtun speakers of English during their interaction with others. There also exists a note on the role of L1 while speaking or learning English and the role of native English environment.

While analysing the findings, this study verified the Contrastive analysis Hypothesis that the absent sounds in language can cause difficulties in appropriate pronunciation. This study confirmed that sounds / θ /, /v/ and /ʒ/ which were absent created problems for Pashtun speakers of English in their pronunciation.

 All the five participants of Pakistani Pashtun Speakers pronounced sound / θ / correct 52% of the time. While they pronounced sound /v/ and sound /ʒ/ 40 and 56 percent correct respectively. On the other hand Londoner Pashtun Participants exhibited these sounds 68, 72 and 76 percent correct. This reveals that though the second group, though a bit improved, yet needed further

improvement and the absent consonants sound had interfered with their proper pronunciation.

For Pakistani group the most frequent difficulty causing consonant sound was /v/ which they produced correctly only 40% of the time. This revealed that they needed more practice to make their articulators used to of it. The nearest other such sound was / ɵ/ which they produced correct 52% of the time.

For Londoner group the most frequent difficulty causing consonant sound was / ɵ/ which appeared correct 68% of the time and nearest other sound was /v/ which they pronounced correct 72% of the time. These results signify that aggregate from both the groups sound / ɵ/ is the most frequently interfering sound regarding intelligibility of Pashtun speakers of English.

Taking into account the non-native Pashto consonants group (/p/, /f/ and /q/), Pakistani Pashtun speakers felt sound /f/ as the most frequently difficulty causing consonant. They pronounced it correctly 52% of the time. In the case of Londoner participants the sound /p/ appeared to be the most difficult consonant sound for them. They pronounced it correctly 88% of the time. On the other hand the second most nearest sound after /p/ for Londoner group was /f/ which they pronounced correctly 92% of the time. While for Pakistani group it was /p/ which they pronounced correctly 56%. In aggregate, taking both the groups as a single group both the sounds /p/ and /f/ are equally interfering sounds. According to these results the first objective is met when the sounds / ɵ/, /p/ and /f/ are presented as the major difficulty causing consonants for Pashtun speakers of English.

Further on, as there appeared considerable problems due to absent consonant sounds of English in Pashto and then non-native consonants group, it can be said there is considerable role of L1 sound system while pronouncing the sounds of other language. The study confirmed that Pakistani Pashtun speakers of English and Londoner group pronounced sounds / ɵ/, /v/ and / ʒ/ 52, 40 and 56 percent and 68, 72 and 76 percent correct respectively which confirmed that those

sounds which were not present in L1 system appeared difficult for participants. The other group of sounds /p/, /f/ and /q/ also proved that both the groups had problems due to non-nativity of these sounds (table 4.3a and b). The role of L1 can also be understood while examining the sound /v/. The nearest sound of /v/ is /w/. Pashtun speakers of English most frequently use /w/ sound for the reason that /v/ is not present in Pashto and the nearest is /w/ so they misuse /v/ as /w/. In short, there is considerable role of L1 in the production of consonants sounds of other language. The pronunciation of sound /t/ instead of / ɵ / also proved the role of L1 while pronouncing English consonant sound. Pakistani Pashtun Speakers pronounced sound /ɵ/ 52% of the total time and Londoner Pashtun speakers pronounced it 68% correct of the total time. This reveals that sound / ɵ/ which is absent in Pashto language thus Pashtuns use /t/ instead of / ɵ/. In short, there is considerable role of L1 in the production of consonants sounds of other language.

Keeping in view the analysis of the findings, it appeared that there is considerable difference between the pronunciation of Pakistani and Londoners' group. For instance, sounds / ɵ/, /v/ and /ʒ/ for Pakistani Pashtun group were correct 52, 40 and 56 percent respectively while Londoner group, in this regard, were correct 68, 72 and 76 percent respectively. This disclosed that the influence of native English environment is worth testing in understanding the pronunciation issues. Onwuegbuzie et al. (1999) and Lightbown and Spada (2006) found during their study that exposure to the target language and its culture encourages reduction of language anxiety in learners and develops pronunciation and spoken ability.

Here it is necessary to mention that current study have similar results to a study conducted by Bohn and Fledge (1992) where they concluded that its similar or nearest sounds that created problems for German speakers. Similarly Pashtun speakers of English in this study revealed that

instead of sound /v/ which is not present in Pashto the participants pronounced its nearest available sound in Pashto /w/. Same was the case with other similar or nearest sounds.

On the other hand, this study contradicts the results of the study conducted by Major and Kim (1999) where they concluded that beginning and advance Korean learners of English were comfortable with similar sounds but Pashtun speakers had problems with similar sounds according to current study.

Major (1987), in another project, revealed that advanced Brazilian/Portuguese speakers were comfortable at dissimilar sounds than the similar ones. It should be noted that though the current study have the same results as mentioned above but the newer aspect appeared was the problem of threshold level pronunciation of non-native Pashto sounds where Pashtuns do no perform satisfactorily.

5.2   Implications of findings

The findings of the current study can be used in three dimensions. On one hand these findings have implications for theoretical expansion and on the other hand practical relevance with language use. Keeping in view the theoretical expansion, this study can provide a basic knowledge for further theoretical development regarding relation of English and Pashto consonants contrastive study. It can be expanded by using a larger group of participants, geography etc. within or outside of Pakistan with focus on Pashtun speakers and also the including different dialects groups. This can better set a foundation to understand the issues of phonological differences between Pashto and English. Language teachers, I would say, can be given a good account of understanding of both Pashto language and English language sound systems particularly consonants. Comprehensive knowledge of both the systems enables the teachers better solve their

learners' problems and teach more effectively. This study, in terms of practical applications, can assist teachers as a comprehensible model. English language teachers in Khyber Pukhtunkhwa province of Pakistan and teachers outside Pakistan teaching Pashtuns can understand the consonant sounds that interfere with the intelligibility of Pashtun speakers of English and cause difficulties for them. Moreover, teachers can produce better results if they make their learners practice such sounds. Regard learners' performance, it can be said that they can be provided with better awareness of their problems and phonetic differences between L1 and target language. They can also get familiarized with the use of those articulators which they do not use and L1 interference that create intelligibility problems for them. Learners can be enabled to detect their own pronunciation related errors followed by the step of their self correction.

5.3   Conclusion

This study was conducted to understand the impact of phonological characteristics of Pashto and native English environment on the pronunciation of English consonants. In this regard, the research activity dealt three major objectives which were finding out major consonants that create intelligibility problems for Pashtun speakers of English, secondly the role of Pashto language while use of English consonants and finally to understand the impact of native English environment on the use of English consonants. For this purpose, the analysis of the findings were presented in three sections named as A, B and C. section A presented the analysis of the findings in response to questionnaire, B and C sections covered the response against 'Reading 1 and Reading 2'. The resulted analysis of findings revealed that non-native consonants in Pashto language which are present in English do affect the intelligibility of Pashtun speakers of English. Similarly, the consonants of English which are absent in Pashto also create problems of misunderstanding of the said group. The analysis also revealed that in native English environment, Pashtun speakers have

improved their pronunciation. Consequently, the conclusion can be drawn that there is considerable role of mother tongue and native environment on the pronunciation of consonants.

5.4   Recommendations for future research

The author, first of all, recommends the need of further studies in this field for there is very study of Pashto language in both Pakistan and Afghanistan. Keeping in view the limited study on Pashto language phonetics and phonology future research can be improved by using a large sample form Pashtun community. It is also important to understand geographic role in pronunciation for there are considerable differences in the pronunciation of Pashtuns of difference areas. They move their articulators in their own way. Moreover, another major aspect for future research can be the combination of both segmental and suprasegmental features of phonology. The author would also like to recommend future research for both hard and soft dialects of Pashto language. Another approach towards future research can be the difference between Afghan and Pakistani Pashto version in comparison of English sound system. The contrastive analysis of Pashto and English can also study based on vowel systems of the language.

References

Avery, P. & Ehrlich, S. (1992). *Teaching American English Pronunciation*. Oxford: Oxford University Press.

Ayoun, D. (2003)Parameter setting in language acquisition, London, Continuum.

Bohn, O. & Flege, J. E. (1992) The Production of New and Similar Vowels by Adult German Learners of English. *Studies in Second Language Acquisition, 14(2), 131-158.*

Bohn, O. & Flege, J. E. (1992) The Production of New and Similar Vowels by Adult German Learners of English. *Studies in Second Language Acquisition, 14(2), 131-158.*

Brown, H. D. (1994). *Principles of Language Learning and Teaching* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Edwards, J.G.H. and Zampini, M.L. (Eds.) (2008) Phonology and second language acquisition, The Netherlands: John Benjamins Publishing Co.

Fledge, J. (2005) Origins and development of the speech learning model, Birmingham: University of Alabama.

Fraser, H.(2000) *Coordinating Improvements in Pronunciation Teaching for Adult Learners of English as a Second Language* (Gov. Rep.). Canberra: DETYA (ANTA Innovative Project).

Fries, C. C.(1945) *Teaching and Learning Language as a Foreign Language*. Ann Arbour: University of Michigan Press.

Huang, Y.W. (2009) Listening to their voices: an in-depth study of language anxiety and cultural adjustment among Taiwanese graduate students in the United States. Ph. D. Indiana University of Pennsylvania.

International Phonetic Alphabet: Handbook of the International Phonetic Association: A guide to the use of the International Phonetic Alphabet. (1999) Cambridge, U.K. & New York, NY: Cambridge University Press.

Jedynak, M. (2009) Critical hypothesis revisited, Frankfurt: Peter Lang GmbH.

Kenworthy, J. (1987) *Teaching English Pronunciation.* London & New York: Longman.

Lado, R. (1957) *Linguistics Across Cultures*: *Applied Linguistics for Language Teachers.* Ann Arbour: University of Michigan Press.

Lee, W. R. (1968) Thoughts on Contrastive Linguistics in the Context of Foreign Language Teaching. In J. E. Alatis (Eds.), *Contrastive Linguistics and its Pedagogical Implication: The Report of the 19th Annual Round Table on Contrastive Linguistics* (pp.185-194). Washington DC: Georgetown University Press.

Lenneberg, E.H. (1967) Biological foundations of language, Wiley.

Major, R. C. & Kim, E. (1999) The Similarity Differential Rate Hypothesis. *Language Learning*, 46, 465-496.

Lightbown, P. and Spada, N.M. (2006) How languages are learned, Oxford: OUP.

1.1.1   *Lorimer, D. L. R. (1915)* Pashtu, Volume 1: Syntax of Colloquial Pashtu with Chapters on the Persian and Indian Elements in the Modern Language.

Major, R. C.(1987) English Voiceless Stop Production by Speakers of Brazilian Portuguese. *Journal of Phonetics*, 15, 197-202.

Major, R. C., & Kim, E. (1999). The Similarity Differential Rate Hypothesis. *Language Learning*, 46, 465-496.

Menn, L. and Ratner, N.B. (Eds.) (2000) Methods for studying language production, New Jersey, Lawrence Erlbaum Associates, Inc.

Ohata, K. (2005) Language anxiety from the teacher's perspective: interviews with seven experienced ESL/EFL teachers, *Journal of Language and Learning,* 3 (1), pp.133-155. [Available at: http://www.jllonline.co.uk/journal/jllearn/3_1/ohata.pdf]

Oller, J. W. & Ziahosseiny, S. M. (1970). The Contrastive Analysis Hypothesis and Spelling Errors. *Language Learning*, 20, 183-189.

Onwuegbuzie, A. J., Bailey, P. and Daley, C. E. (1999) Factors associated with foreign language anxiety, *Applied Psycholinguistics,* 20 (2), 217-239 [Available at: http://flearn.uksw.edu/file.php/197/Academic_Papers/Cinta_Fitri/AP_20_2_217-239_factors_associated_with_foreign_language_anx.pdf]

Penfield, W. and Roberts, L. (1959) Speech and Brain Mechanisms, Princeton: Princeton University Press.

Polansky, N. A. (1960) Social work research, methods for helping professionals, London: The University of Chicago Press, Ltd.

Pulvermuller, F. & Schumann, J. (1994) Neurobiological mechanisms of language acquisition, *Language Learning, 44*, 681-734.

Seliger, H.W. and Shohamy, E. (1989) Second language research methods, Oxford: OUP.

Singleton, D. and Lengyel, Z. (1995) The age factor in second language acquisition, USA: Multilingual matters ltd.

Sousa, A. D. (2005). *How the Brain Learns to Read*. California: Crowin Press.

Stockwell, R. P. Bowen, D. J. and Martin, J. W. (1965)*The Grammatical Structures of English and Spanish.* Chicago & London: The University of Chicago Press.

Tarone, E. (1979) Interlanguage as chameleon, Language Learning 29(1), 181-191.

Tegey, H. and Robson, B. (1996) A reference grammar of Pashto, Washtington D.C. Centre for Applied Linguistics.

Wardhaugh, R. (1970) The Contrastive Analysis Hypothesis. *TESOL Quarterly*, 4, 120-130.

Wilkinson, D. and Birmingham, P. (2003) Research instruments: A guide for researchers, London: Routeldge Falmer.

Windfuhr, G. L. (1979) Persian. In B. Comrie (Ed.). (1987). *The World's Major Languages* (pp. 523-547): Oxford UP.

Young, D. J. (1991) Creating a low-anxiety classroom environment: what does language anxiety research suggest?, *The Modern Language Journal,* 75 (4), pp. 426-439 [available at: http://leighcherry.wikispaces.com/file/view/Creating+a+low-anxiety+classroom+--+Young.pdf

Appendix A

Information Sheet

Title of this project

The impact of phonological characteristics of Pashto and native English environment on the pronunciation of English consonants

Aim of the study

The aim of this study is to investigate the consonants, which cause difficulties for Pashtun speakers of English. Furthermore, the study also includes investigating the role of Pashto sound system and the changes in pronunciation of such consonants that result during considerable stay in native English environment.

Data collection activities

In this study you will be asked to respond to one questionnaire and go through two readings.

The questionnaire would be based on five questions to answer. This should take around ten to twenty minutes. Then you would be asked to go through 'Reading 1' and 'Reading 2' loudly, designed as two different 15 sentence readings. This should take around 15 minutes.

All the data you provide will be secured in a safe place and will only be accessible to me and my project supervisor. You will not be identifiable in the reporting of the results of this research.

Your participation in this research is purely voluntary, and you are at liberty to withdraw your participation at any time without any prejudice.
My contact details and those of my supervisor are:

Mr. Irfan Ullah (Researcher)   Dr. Billy Clark (Research Supervisor)

Appendix B

Consent Form

Title of the project: <u>The impact of phonological characteristics of Pashto and native English environment on the pronunciation of English consonants.</u>

I have been informed of and understand the purposes of the study. I have been given an opportunity to ask questions. I understand that my participation in this project is voluntary and I can withdraw at any time without any prejudice. Any information which might potentially identify me will not be used in the published material.

I agree to participate in the study as outlined to me.

Name of the participant:

Signature:

Date:

Contact Details:

Appendix C

Questionnaire
_____

_____

Name: _____ Academic Qualification: _____ Age:_____

Score in IELTS speaking module: _____ IELTS exam year: _____

_____

Q: 1   Have you attempted or gone through any pronunciation improvement course in past?

   a) Yes   b) No

   b) Other: _____.

Q: 2   Do you consider pronunciation important in communication and satisfied from your level of pronunciation?

   a) Yes   b) No

   Other:
   _____.

Q: 3   Do you feel your listeners are comfortable with your pronunciation?

   a) Yes   b) No

   b) Other
   _____.

Q: 4   Do you experience the question 'please repeat your sentence?' 'What?' 'What did you say?' etc.?

   a) Yes   b) No

   Other:
   _____.

Q: 5   Do you intend/are you interested to take up a course for pronunciation improvement in future?

   a) Yes   b) No
   Other:
   _____.

Appendix D

Reading 1

1. They cannot be taught according to your thought.

2. Through this way we can prove it true.

3. Thanks for sending this water tank for us.

4. Thumb's up for going to that tomb.

5. Lesson about a camel's thirst was very terse.

6. His vest could not surround his waist due to his weighty body.

7. Do you know the difference between vine and wine?

8. Vetting of wet material in laboratory became difficult.

9. According to dictionaries vent and went are homophone.

10. Weaving is not viewed a good profession by some people.

11. Major wants to measure the boundary wall.

12. The leisure of the accountant left the ledger incomplete.

13. The vision of the vigilant inspector is trustable.

14. Pleasure of the pledge was unforgettable.

15. Seizure and scissors are not synonyms.

Appendix E

1. The fool must not pick the gun.

2. Don't fail to peel the banana.

3. The four poor students commit suicide.

4. The forest clerk kicked the poor gardener.

5. The fluffy puppy is very cute.

6. The pure wooden floor was looking very beautiful.

7. Paul falls in a well and could not survive.

8. He was busy in playing golf.

9. Patting the bread she saw a fat mouse around.

10. To prevent the water flowing around she shouted to call neighbours.