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Phonological Challenges Faced by Shina ESL Speakers in Gilgit-Baltistan: An Exploratory Study

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Abstract
The present study has explored the phonological issues which create hindrance for the Shina native speakers while learning English as a second language. The study has considered those English consonant sounds which are not present in Shina native language because Shina speakers frequently face mispronunciation problems while learning English as a second language. These hindrances regarding pronunciation preclude them not only from their expected proficiency in language but also affect the auditory and oral skills in the target language. The data was collected through questionnaires and interviews from the undergrad students studying at Karakoram International University. The obtained data were statistically analyzed through the software Praat. The results revealed that five English consonant phonemes; the post-alveolar voiced fricative /ʒ/, the dental voiceless fricative/θ/, the labiodental voiced less fricative/f/, the labiodental fricatives/v/, palate- alveolar /ð/, were creating problems for Shina speakers. It was also observed that the speakers used appropriate sounds of Shina language like /dz/,/t/,/d/,/ph/, and /w/ to replace the English phonemes. The reasons behind the problems faced by Shina speakers while learning a second language included: interference of mother tongue, the difference in the sound systems of English and Shina, medium of instruction in schools and colleges, lack of trained language teachers, and lack of motivation. To counter these issues, it is suggested that the audio-lingual method should be used to eradicate the phonological problems among the ESL learners of the Shina language.

Keywords: Phonology, Praat, Articulation, Voiced, Voiceless,

Introduction

Shina language is spoken by the people living mainly in Gilgit, Ghizer, Diamer, and Baltistan regions of GB and Ladakh of the occupied territory of Kashmir. The status of the Shina language in GB is that of a lingua franca (Khan, 2020). It belongs to the Shina group of the Dardic branch of the Indo-European family of languages. According to the Linguistics Survey of Pakistan (1990), about 1.3 million people speak Shina in different valleys of Gilgit-Baltistan (GB). Shina speakers have been divided into different clans. The major tribes are Yashkuns, Gushpur, Ronos, Kashmiris, Kamin and, Shins, all of them speak Shina as their mother tongue (Radloff, 1992). Although all these people speak Shina there seems to be a vivid difference in their tone, stress, and their way of pronouncing certain words. The variation in phonological and grammatical dimensions affects their communication. Due to the dearth of transport facilities, the Shina speaking areas were quite isolated from each other. Lack of interaction with the people residing away from the immediate vicinity because of the mountainous terrain resulted in different variants of dialects. However, the focal area of the language remains Gilgit city. Dialects of Shina language slightly differ from one another but the speakers of these dialects can easily understand each dialect to exchange their messages. Gilgit-Baltistan is one

of the most culturally, traditionally, and linguistically diverse areas of Pakistan (Radloff, 1992). Gilgit is the capital of GB and, has ten districts i.e., Chanche, Skardu, Shigar, Kharmang, Ghizer, Gilgit, Hunza, Nagar, Astore, and Diamer. It has the three highest 2 mountain ranges the Hindukush, the Himalaya, and the Karakoram. It is the center of the trading area, especially between Pakistan and China (Kreutzmann, 1991). The other regional languages are Brushaski, Khawar, Balti, Domaki, and Wakhi. Unfortunately, almost all the languages spoken in Gilgit-Baltistan exist only in spoken form and lack proper orthography (Backstrom, 1992). All these languages are different syntactically, semantically, and grammatically. The institutionalized languages in this area are Urdu and English. Unlike other languages, Shina is the most spoken language in Gilgit-Baltistan. The overview of the Shina language reveals that it had its special features even among the interlocutors of the same language. Thus, this region is known because of its richness in language diversity and is also called a paradise for linguistics (Kreutzmann, 1991). The scholars enumerate the varied dialects of Shina. Leather (1880) was the first western scholar who described that there are three main dialects in the Shina language. Grierson (1919) and Lorimar (1927) have also presented the varieties of Shina i.e. Chalasi, Astori, Khohistani, and Gilgit. Moreover, Bailey (1924) has comprehensively explained the syntax and phonology of the Shina language. Furthermore, he explained the four main dialects of Shina: Gilgiti, Khohistani, Chilasi, and Astori. The scholars, Namus (1961) and Schmidt (1958) also elaborated on the dialects of Shina. These four dialects are spoken in various parts of GilgitBaltistan. Each dialect has some phonological and morphological differences as compared to other dialects spoken in the region. Bailey (1924) stated that Gilgiti is the real home of the Shina language where it is spoken with purity. Lorimar (1927) described Gilgiti as the premier dialect and the bestknown dialect. Schmidt (1958) identified that the Gilgiti dialect is the original form of the Shina language and the only one with standardizing influence. Furthermore, Shina speakers also live in the valleys on the Indian side of Kashmir in the Daras and Kargel areas (Carla, 3 2002). There are 49 phonemes in the Shina language but 38 phonemes got their status. The words are borrowed from English, Punjabi, Kashmiri, Hindi, and Urdu. Shina language has 9 vowels which occur with contrasting meanings signifying the change of meaning concerning the length of the vowel. The production of labio-dental voiceless fricative as bilabial voiceless aspirated /ph/ stop by Shina speaker reflects that there is no labiodentals voiceless fricative in Shina. Importantly the arrangements of diphthongs and vowels in the Shina language are very interesting because the different nature of two sounds come together in the same order, whereas stressed and unstressed vowel sequence is found rarely (Rajapurohit, 2012). The stress pattern of Shina speakers is quite different from the speakers of other languages wherein the first sound is not stressed by Shina speakers while the second sound is either stressed or nasalized. There are twelve diphthongs in Shina language i.e. /áe/, /áo/, /éə/, /éə/,/éi/, /úe/, /úi/, /ói/, /óə/, /uí/, /ué/, /aá/, /uú/, /ei/, (Rajapurohit,2012). Furthermore, the orthography of the Shina language is different from that of both English and Urdu. It has 45 alphabets while English and Urdu have 26 and 39 respectively. So, Shina has 7 additional alphabets as compared to Urdu and19 alphabets as compared to the English language. Therefore, this study aimed to unfold the hindrances faced by the Shina ESL learner while learning English as a second language. It is intended to highlight the phonological importance of the Shina language. Since the study deals with English phonology, it will be advantageous not only for the ESL learners but also for all the Shina language speakers.

Theoretical Framework

The rationale of the study and reviewed literature led this research to choose the “Optimality Theory” propagated by Prince and Smolensky (1993) as the theoretical framework. The theory explains the linguistics constraints, which are universally present in all languages in the world. Optimality theory, as a constraint-based approach, was developed to explain the differences that occur between the languages. This theory also presupposes a universal grammar and states the constraints that are characterized as universals. There are two types of constraints functioning mechanisms i.e., faithfulness and markedness. Constraints are based on principles

of markedness while markedness refers to those sounds that are relatively more difficult to produce and are found less frequently in other languages (Hyman,1975) like /p/ is considered a natural sound and easy to produce and it is found in many languages around the world. The affricate /ts/ is a marked sound that is relatively more difficult to produce, and its occurrence is less frequent in other languages. Faithfulness constraints require input and output forms to be identical to one another. If segments between the input and output are deleted, inserted, or rearranged, the faithfulness constraint is violated like if a child produces /skip/ as /sip/, then the faithfulness constraint has been violated.

Method

This study followed the norms of quantitative research therefore, the experimental design was selected as the research design for this study (Section 3.1). The study was designed for experiments with the observation of the native speakers of Shina and the English language teaching experts and the learners. The experimental design was selected to make the study more scientific and reliable. The research design implies collecting and analyzing quantitative and then qualitative data in two consecutive phases within one study" (Yankova, Cresswell & Stik, 2005, p.03). The qualitative approach contributes theoretical material for the study, which was obtained from the comparative study of phonology of both languages concerned. The theoretical material was supported with the examination of the ESL Shina speakers in comparison with correct English pronunciation following with IPA phonetic sounds by native speakers of English. Optimality theory is used as the theoretical framework, which discusses language, constraints. Through the questionnaire, the hindrances of ESL learners can be evaluated. The quantitative approach was based on the performance level of Shina speakers in learning correct English pronunciation in terms of the selected consonant phonemes. The pronunciation of English phonemes selected by the Shina speakers was investigated through Praat software and formed them the most problematic consonants were highlighted. There was a comparative study held about the phonology of both languages. The previous works have been elaborated to identify the 46 issues within the second language. When the pronunciation of Shina ESL learners have been observed throughout the performance level then the backgrounds of L1 in formal and informal situations were used soon after completing quantitatively through the data collected from the Shina native speakers language. It identified the hindrances involved in the learning. It highlighted the effects of L1 (Shina) phonology in learning English phonology for ESL Shina speakers. The quantitative approach was selected to get the data from the ESL Shina speakers having an English learning background. The data has been collected through scientific tools, Praat software was used to analyse sounds through spectrograms. The data obtained were analysed statistically through (SPSS) to eradicate the ambiguities in different responses of the participants. Figure 3.1 Method used in the research study. The data was collected through questionnaires and interviews from the undergrad students studying at Karakoram International University. The obtained data were statistically analyzed through the software Praat. The results revealed that five English consonant phonemes; the post-alveolar voiced fricative /ʒ/, the dental voiceless fricative/θ/, the labiodental voiced less fricative/f/, the labiodental fricatives/v/, palate- alveolar /ð/, were creating problems for Shina speakers. It was also observed that the speakers used appropriate sounds of Shina language like /dz/,/t/,/d/,/ph/, and /w/ to replace the English phonemes. The reasons behind the problems faced by Shina speakers while learning a second language included: interference of mother tongue, the difference in the sound systems of English and Shina, medium of instruction in schools and colleges, lack of trained language teachers, and lack of motivation. To counter these issues, it is suggested that the audio-lingual method should be used to eradicate the phonological problems among the ESL learners of the Shina language.

Data Collection

The population of the research included undergraduate students studying at Karakoram International University because there is a representation of all the Shina-speaking districts of

44 Gilgit Baltistan so that the results would be generalized easily. The purposive sampling and questionnaires were used to collect the data.

Sampling

The total number of participants of this research was 120 (both male and female). They were students at BS level from Karakorum University in Gilgit city. Furthermore, 150 respondents were also selected for the statistical survey through a questionnaire based on the Likert scale. The respondents were teachers who were teaching the English language in different colleges of Gilgit city.

Data Collection Tool: Questionnaire

Eight questionnaires were distributed to each language teacher selected on basis of their experience as the instructor of the English language. The questionnaires inquire about the phonological problems of Shina ESL speakers and the measures how to eradicate those problems.

Data Analysis

The software Praat was used to record the pronunciation of selected words from the participants.

Pretest and Post Test

Two were used to record the responses i.e., pre-testing and post-testing. Pre-test comprised of the problematic consonant sounds in the Shina language, which was a hindrance for Shina natives while speaking or learning English as a second language. In the first session, the respondents were asked to pronounce the sound twice or thrice, without applying drilling techniques. The software showed intervention and frequencies of sounds 45 that were noticeable in the spectrograms. After giving five intervention sessions to the respondents by applying audio-lingual drilling techniques the improvement in the problematic sounds while producing such sounds was easily noticed by using the software Praat. The sound frequencies showed that after usage of drilling techniques a vivid improvement was noticed through the spectrograms.

Analysis

Teacher's Questionnaire Data Analysis and Discussion The previous relevant literature with the connection of research questions and present study led the researcher to use Optimality Theory which was proposed by "Prince and Smolensky" in (1993). This theory has been selected as the theoretical framework of this research. This theory explains to signify the differences between the language sounds. This theory assumes Universal Grammar and illustrates universal principles of child first utterance phonemic sounds. This approach elaborates the restrictions regarding language restraints. These limitations are based on language principles. According to Hyman (1975), some sounds are more difficult to produce and are found less commonly in languages. The consonants like /p/ and /b/ are more natural can easily be found and produced. Such sound would have occurred in all the languages in the world. On the other hand, affricate-like/ts/ sounds are more difficult to produce and cannot find in all the languages in the world. Archangeli and Langendoren, 1997, have given the universal parameters and trends of the syllable. Through these parameters, we can easily find out the hindrances of ESL learners while learning phonology. Furthermore, Smolensky elaborates the learner will choose the input representation that matches the adult output representation as to the optimal output. This follows the two rules of optimality, richness the base and lexicon optimization. Apart from these phonological restrictions, the researcher developed a closed-ended questionnaire. This questionnaire was distributed among the language teachers of various colleges of Gilgit Baltistan. The responses have been collected and analysed statistically. The result of the questionnaire proves that the ESL Shina learner faced problems while pronouncing certain fricative consonant sounds. A questionnaire is a way of collecting

data, answering a series of questions, statements for different purposes, for example, trade, health, education to explore certain problems.

ESL Shina Learners Face Hindrance While Pronouncing Labiodentals Fricative Sounds /f/, and /p/ Bilabial Plosive

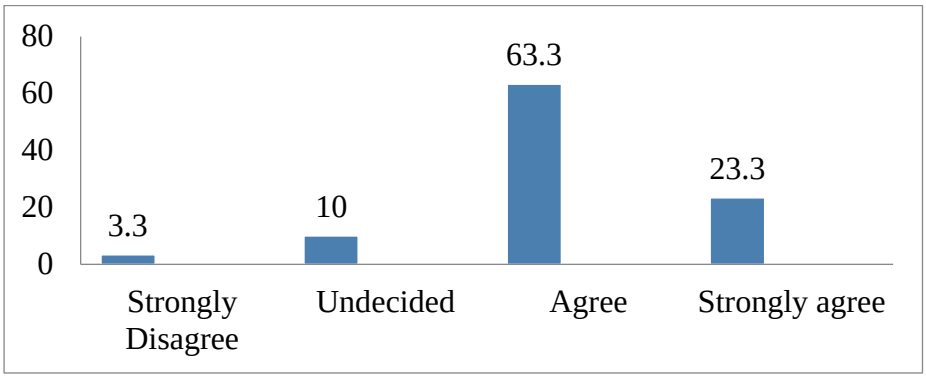


Figure 1: Pronouncing labiodentals fricative sounds /f/, and /p/ bilabial plosive

Figure 21 shows 63.3% of university teachers have agreed the Shina ESL learners have been facing hindrance while pronouncing labiodentals fricatives sounds /f/, and /p/ bilabial plosive. Furthermore, 23.3% have strongly agreed with the statement. Generally, 86.6% of language have agreed that the ESL Shina learners faced problems in bilabial and labiodentals fricatives.

ESL Learner Face Difficulties in Articulating the Plato-Alveolar Affricate Consonant Sound /ts/ and /dʒ/

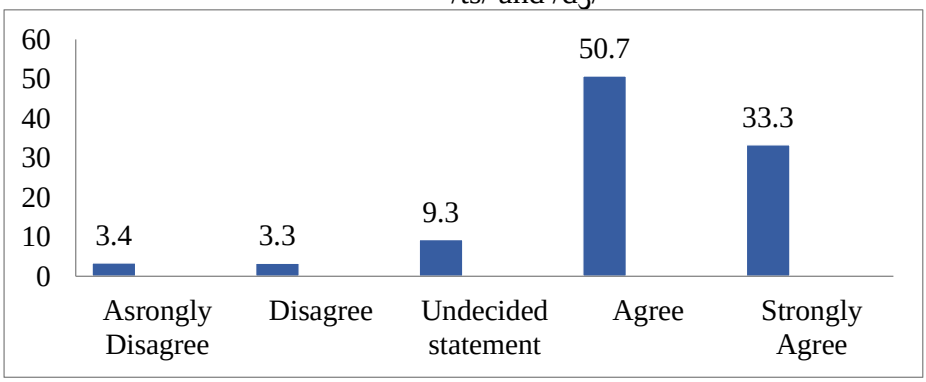
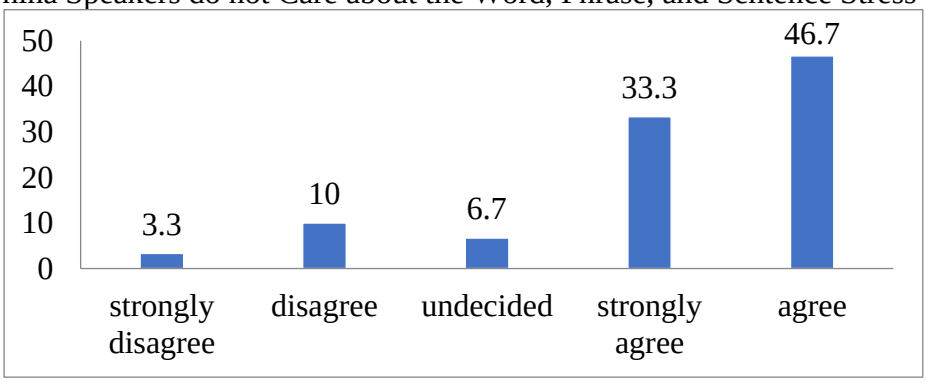


Figure 2: Difficulties in pronouncing dental fricative consonant sounds /θ/ and /ð/

Figure 23 has shown that 50.7 % of the language teachers in Gilgit-Baltistan strongly agreed with the statement. Approximately 90% of the language teachers have agreed that the Shina ESL learners face problems in pronunciation especially the dental fricative sounds /θ/ and /ð/.

Shina Speakers do not Care about the Word, Phrase, and Sentence Stress while Speaking



Shina speakers do not care about the word, phrase, and sentence stress while speaking

Figure 24 has presented the responses of the language teachers from various institutions in Gilgit-Baltistan. Almost 76.7% of the language teachers have agreed to the statement that most of the ESL learners in the Shina language do not care about the phonological techniques while using language for communication.

ESL Shina Learners Not Paying Attention to Intonation in Speaking

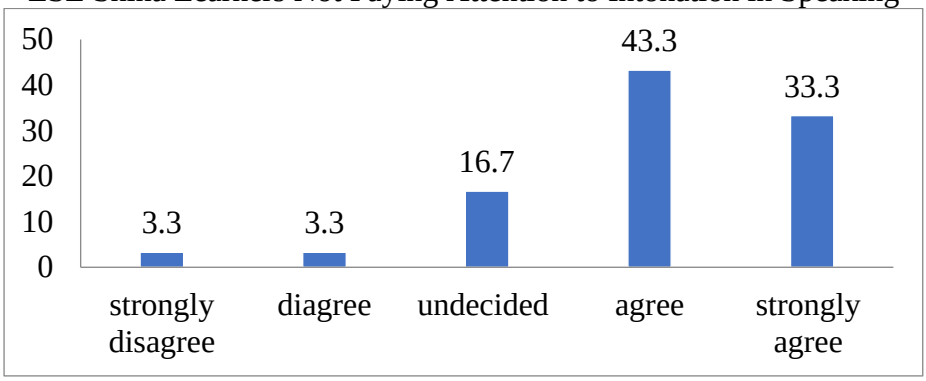


Figure 3: ESL Shina learners not paying attention to intonation in speaking

This result of the questionnaire has explained the various responses of the language teachers through their ample experience (Figure 25). Around 50% of teachers have agreed with the statement and 26% have strongly agreed. So, approximately 76.7% of teachers have agreed that the Shina ESL learner either do not pay attention to stress patterns of the language or they have a lack of awareness of how to put stress on words or sentences therefore they cannot speak fluently with accurate pronunciation.

The Sounds which do not exist in Shina Language Create Hindrances for Shina ESL Learners

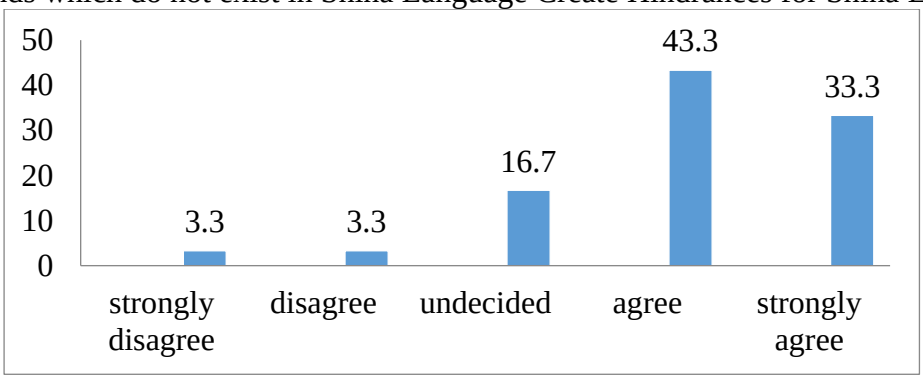
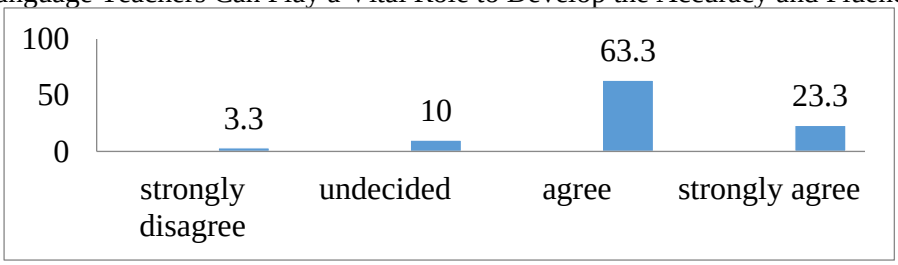


Figure 4: The sounds which do not exist in the Shina language create hindrances for Shina ESL learners

Figure 26 has shown that 43.3% of the language teachers have agreed with the statement and 33.3% have strongly agreed. So, almost 76.6% of the language teachers agreed with the statement that the ESL Shina learners have always faced pronunciation problems due to the sounds which do not exist in the native language.

The Language Teachers Can Play a Vital Role to Develop the Accuracy and Fluency among Learners



Results

The results were deduced in two phases pre-test and post-test. In the pre-test phase, the control group was comprised of 60 students. During the pre-test session, some distinct abnormalities in pronunciation were noticed when the problematic sounds were being pronounced. The selected problematic consonants were got pronounced thrice by the participants that helped us to find out the actual pronunciation by the participants. The given tables and spectrograms show the pronunciation of the selected problematic consonants in word-initial, medial, final positions by the Shina speakers. The frequency of the utterance for these words in different positions is dissimilar so they were presented separately. The entire five problematic consonants were investigated in one word, initial, medial, and final positions. The participants were asked to pronounce the problematic sounds in a word's initial, medial, and final positions. The recorded sounds are almost four hundred and forty. The participants had to pronounce the selected consonants thrice. This gave a chance to overlook the incomprehensible pronunciation of a consonant. They were asked to pronounce in different positions of the words. Many participants pronounced in the Shina accent; some participants articulated like native speakers. The sounds that have the same place, and the manner of articulation, were pronounced like the native speakers such as Flower /flauə/r/, Flour /flauə/, Afford /əfɔ:d/, Leaf /li:f/, Loaf /loʊf/ and others.

Table1: Pronunciation of /f/ sound

Pronunciation of /f/	**Several occurrences by the speakers at different positions of the word.**		
	Word initial position	Word medial position	Word final position
/f/	9	5	20
/ph/	11	14	0
/p/	0	1	0

Table shows that 60 participants articulated the sound /f/ in the words in initial, medial, and final positions. In initial position, 9 participants pronounced the /f/ sound as /f/ and the participants pronounced /f/ as /ph/ but none of them pronounce /p/ in initial position. In the word medial position, the sound was accurately pronounced by 5 participants but one participant has pronounced /p/ while 14 participants have articulated as /ph/. In word-final position, all participants pronounced correctly /f/ and none has pronounced either /ph/ or /p/.

The pronunciation of /f/ at word initial position as /ph./

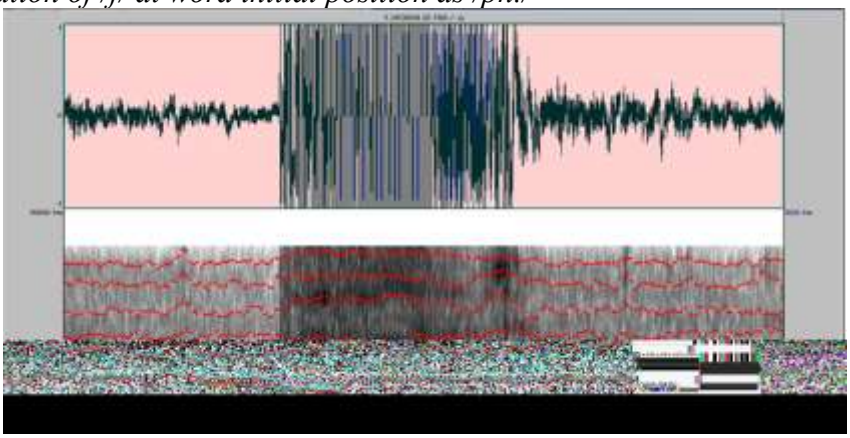


Figure 1: The pronunciation of /f/ at word initial position as /ph./

The Pronunciation of English Consonant /f/

The English labio-dental voiceless fricative /f/ in word-initial, medial, and final positions can be seen in the following table:

Table 2: Pronunciation of /f/ at the initial, medial, and final positions in the word by the Shina speakers.

Pronunciation of /f/	**Several occurrences by the speakers at different positions of the word.**		
	Word initial position	Word medial position	Word final position
/f/	9	5	20
/ph/	11	14	0
/p/	0	1	0

The table shows that 60 participants articulated the sound /f/ in the words in initial, medial, and final positions. In the initial position, 9 participants pronounced the /f/ sound as /f/ and the 11 participants pronounced /f/ as /ph/ but none of them pronounce /p/ in the initial position. In the word medial position, the sound was accurately pronounced by the 5 participants, but one participant has pronounced /p/ while 14 participants have articulated as /ph/. In the word-final position, all the participants have pronounced correctly /f/ and none has pronounced either /ph/ or /p/.

The pronunciation of /f/ at word initial position as /ph/
The result shows ……

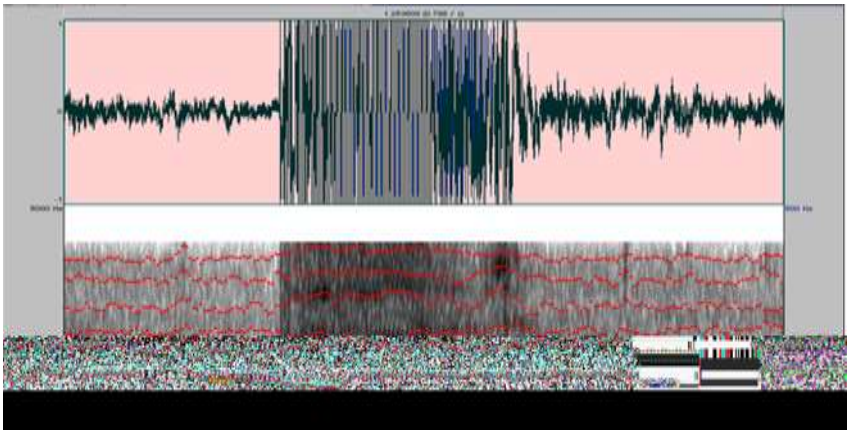


Figure 5: Showing/f/ at word initial position as /ph/

At the word-initial position, the word “flour” by Shina speaker was shown in the spectrogram how they pronounced while articulating the word and how the vocal organs participated to produce the accurate sound. In Figure 1, the area highlighted with black colour represents the airflow that has been blocked while articulating /f/ and hence it has caused the obstruction in pronunciation.

The pronunciation of /f/ in the word initial position /ph/
……..

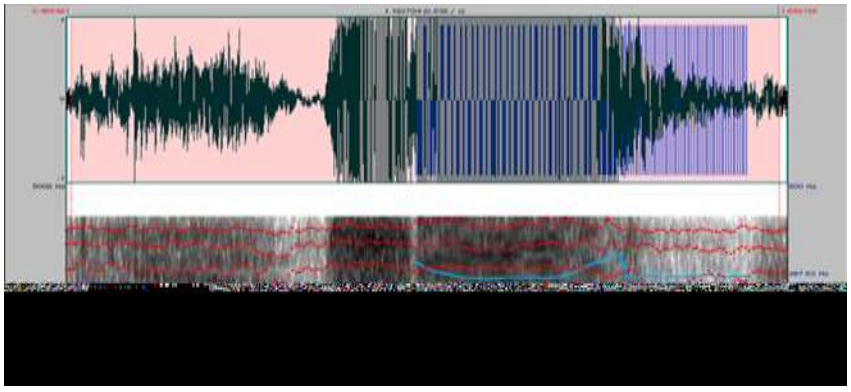


Figure 6: Showing the /f/ at word initial position as /ph/

The frequency 0 Hz showing the occurrence of the /f/ sounds in the initial position by the Shina speakers. Figure 2 illustrates that there is no blockage or obstruction in the word initial position. It exposes the real pronunciation of /f/ as /ph/.

The Pronunciation of /f/ in the Word Medial Position

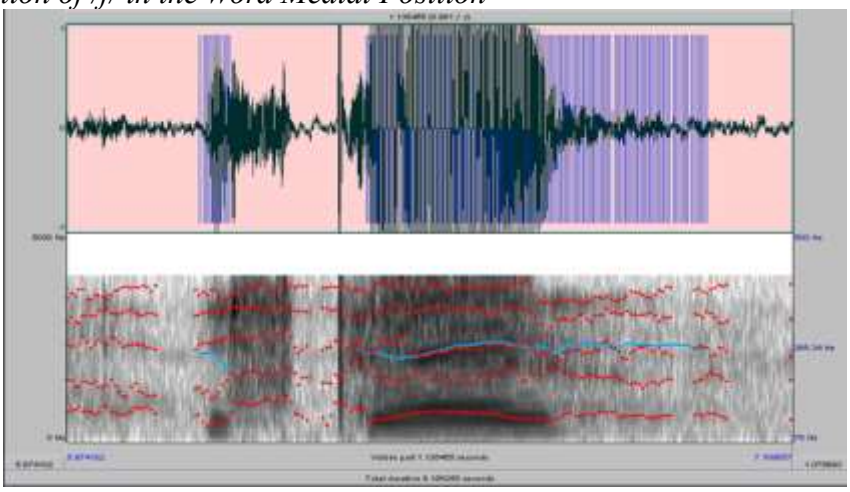


Figure 7: The pronunciation of /f/ at the medial position

The diversity in pronunciation of the /f/ sound is shown in Table 1. The spectrogram in Figure 3 visualizes the differences while articulating the sound by the participants. Similar is the case as in the initial position because the highlighted area in dark color represents the obstruction of airflow upon pronouncing /f/ by the participants that result in mispronouncing /f/.

The pronunciation of /f/ in the medial position as /ph/

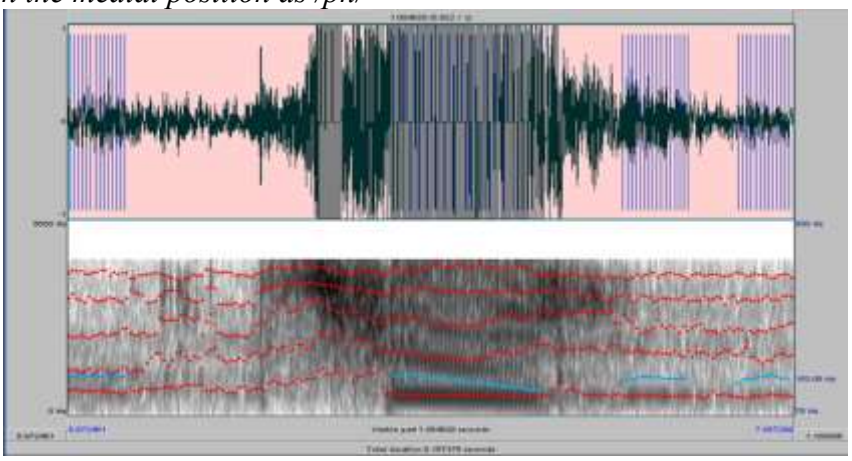


Figure 8: Showing the pronunciation /f/ at word medial position as /ph/

The given word /sphere/ pronounced by the Shina speaker /f/ as /ph/ is shown in Figure 4. The frequency of 120 Hz and the specified black area show the blockage of air before pronouncing the sound /f/ as /ph/. The air coming out from the lungs has been stopped and the air is released through the mouth with the puff of air and produced the sound /ph/.

The pronunciation of /f/ in the medial position as /f/

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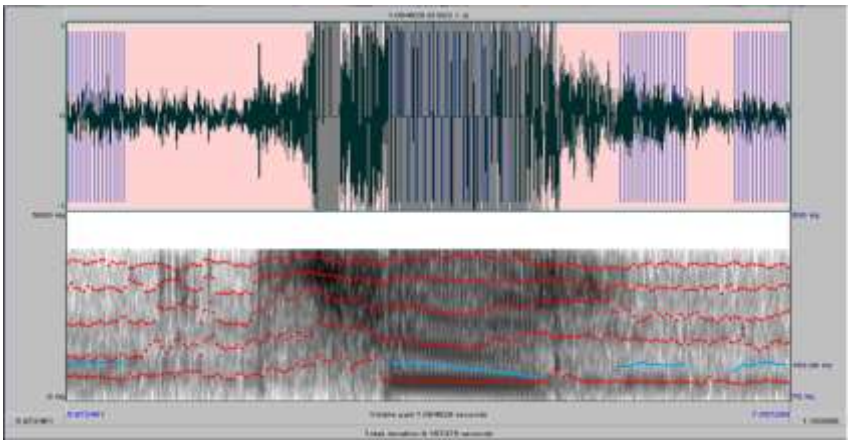

Figure 9: Showing /f/ in the word medial position as /f/

The pronunciation of the word /sphere/ by the Shina speakers is given in Figure 5. Only five participants pronounced /f/ as /f/ in the word medial position. The production of the word /sphere/ is visualized in the spectrogram. The red horizontal lines represent the accurate pronunciation of /f/.

The pronunciation of /f/ in the medial position as /p/

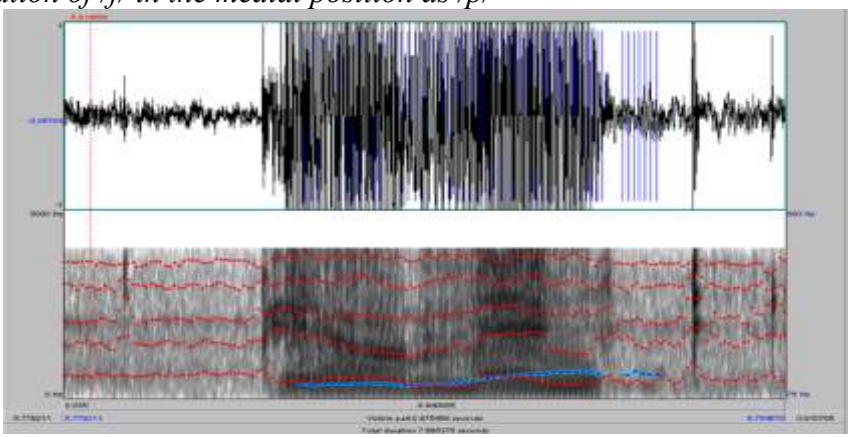

Figure 10: Showing /f/ at the word medial position as /p/

Figure 6 describes the functioning of the articulatory organ while pronouncing /f/ as /p/ in medial position by the participants. The vertical blue lines in Figure 6 shows that while pronouncing /f/ as /p/ the lips remain closed and air rushes from the lungs resulting in the production of /p/.

The Pronunciation of /f/ in the Final Position

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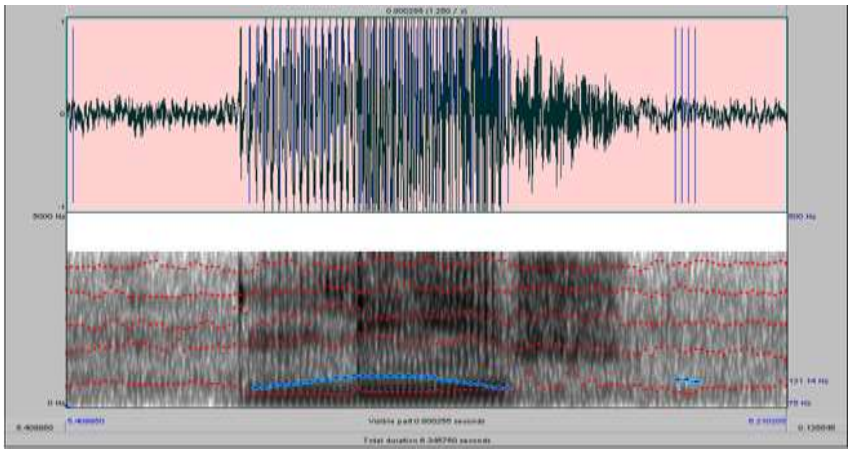


Figure 11: Showing the word /f/ at the final position

Figure 7 has shown that all the participants have pronounced the actual pronunciation in the final position. The decrease in the frequency of the above spectrogram as compared to the previous spectrograms has shown accurate pronunciation.

The English Consonant /v/

The figure shows the pronunciation of the labio-dental voiced fricative /v/ at word initial, medial, and final position. The participants were asked to pronounce the following words: Van /vein/, Vanilla /vənilə/, Travel /trævl/, and Brave /breIv/ etc.

Table 1: The pronunciation of English Consonant /v/

	Number of occurrences of /v/	**Different speakers at different Word positions.**	
Pronunciation of /v/	Word initial Position	Word medial Position	Word final Position
/v/	02	00	00
/w/	18	00	14
/f/	00	00	6
/eů/	00	20	00

The pronunciation of /v/ at different word positions by Shina speakers

The statistical analysis has revealed that 18 participants out of 20 have pronounced the labio-dental voiced fricative /w/ at the initial position (Table 2). In the medial position, all the participants have pronounced /v/ as /eů/. However, most of the participants (14) have pronounced /v/ as /w/ in word's final position while only six participants have pronounced it as /f/ and none has pronounced it either /v/ or /eů/.

The Pronunciation of /v/ in Word Initial Position as /w/

……

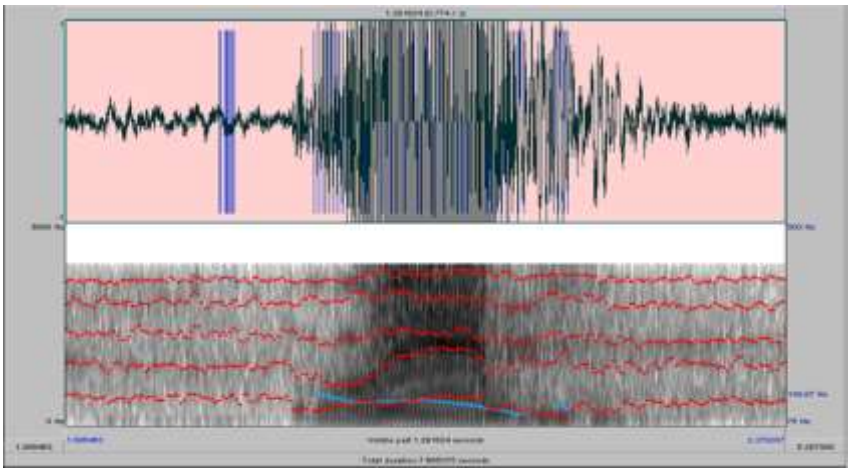


Figure 12: Showing the /v/ as /w/ in the word initial position

Figure 8 shows the pronunciation of /v/ as/w/ in the word initial position. the word 'van 'is pronounced by the Shina speakers as /w/. The frequency level of 180 Hz and the prominent black area in the spectrogram has shown the pronunciation of /w/ instead of the /v/ by the participants.

The pronunciation of /v/ in the initial position of the word

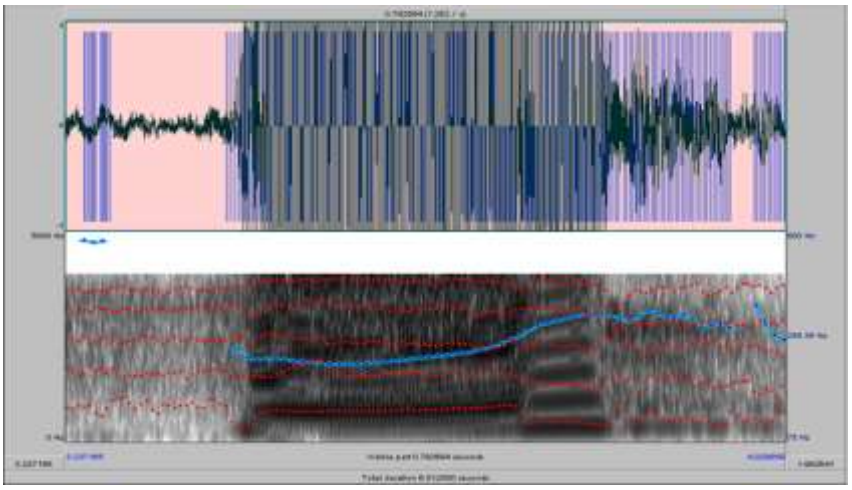


Figure 13: Showing the /v/ in the word initial position

In Figure 9, the spectrogram exposes the complete difference between the two sounds /v/ and /w/. The black area is different from Figure 8. Only two participants pronounced it as /v/ but the same participants pronounced it as /w/ at the word medial and final position.

The Pronunciation of /v/ as /eʊ/ at Medial Position

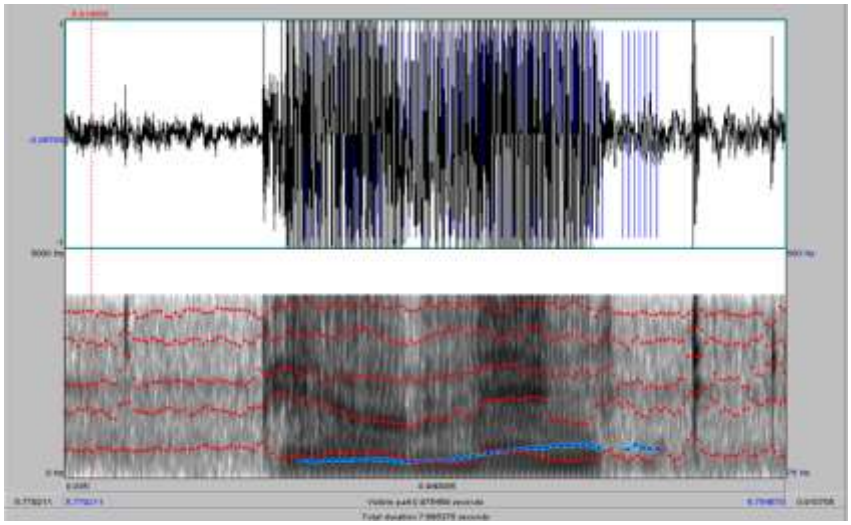


Figure 14: Showing /v/ as/ eʊ/ in the word final position

In the word /pavement/ all the participants produce the sound /eʊ/ in the word final position. Figure 10 shows the bilabial voiceless stop and nasal sound combined to produce a vowel sound.

1.1 The Pronunciation of English Consonant Sound /θ/

The dental voiceless fricative /θ/ sound is pronounced by participants as voiceless dental plosive /t/ at word initial, medial, and final positions (Table 3). Following are words asked from the participants to pronounce:

Thief /θi:f/
Teeth /ti:θ/
Method /me θəd/

1.2 Pronunciation of /θ/ at Different Position of the Word by Shina Speakers

Number of occurrences by different speakers at different positions		
Word initial position	**Word medial position**	**Word final position**
20	20	20

1.2.1 The Pronunciation of /θ/ as /t/ at Initial Position

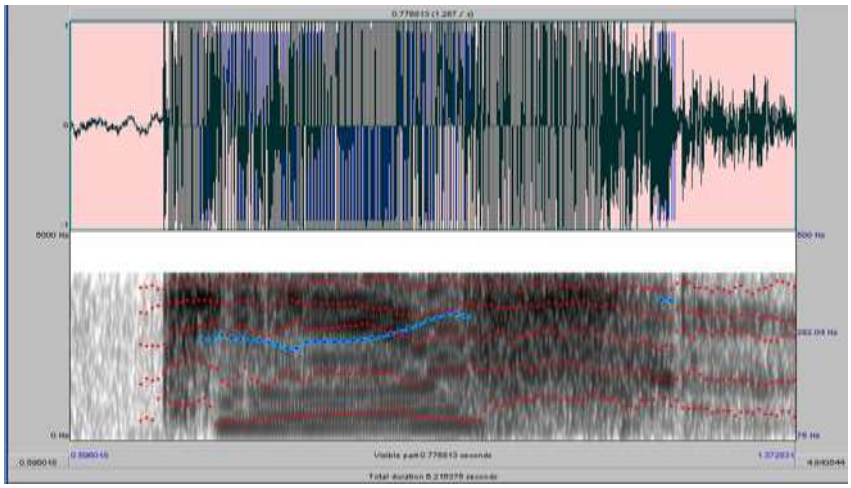


Figure 11 shows the dental fricative /θ/ is pronounced as /t/ in the word-initial position like in the word /thief/ because it was pronounced as a stop rather than fricative. Through the spectrogram complete silence has been noticed while releasing the air through the mouth by the participants that results in a stop-like sound /t/.

1.2.2 **The Pronunciation of /θ/ as /t/ at Medial Position**

Figure 15: Showing /θ/ as /ţ/ at a medial position

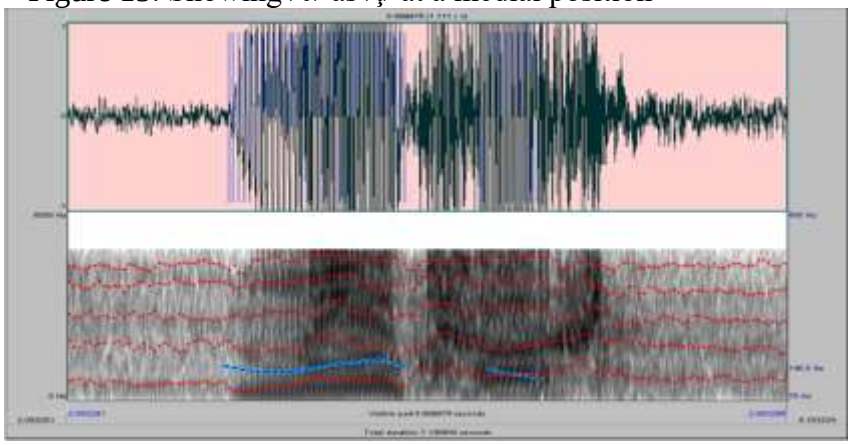


Figure 16: Showing /θ/ as /ţ/ at a medial position

In the word /method/, the participants have pronounced /θ/ as /t/ (Figure 12). The spectrogram clarifies that the position of the word shows dental plosive because the word is influenced by the word-initial position.

1.2.3 The Pronunciation of /θ/ as /t/ at the Final Position

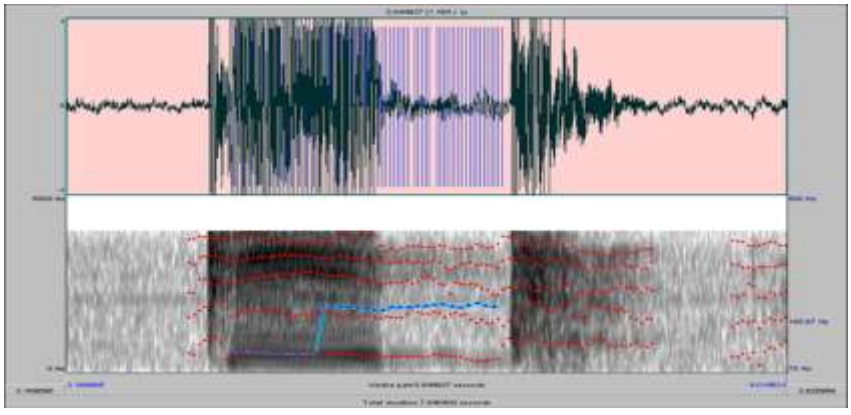
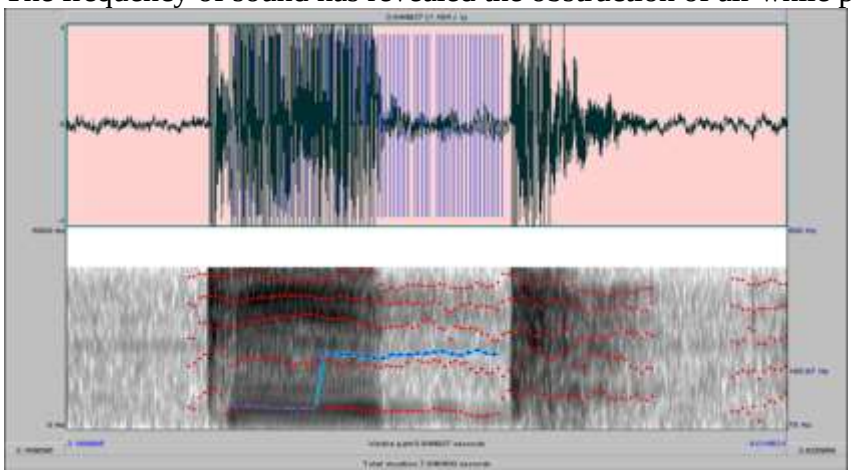


Figure 17: Showing /θ/ as /t/ at word final position

In the word /teeth/ the phoneme /θ/ is pronounced as /t/ by the participants (Figure 13). The spectrogram shows the pronunciation of /θ/ is replaced by /t/ at the final position in the word. The frequency of sound has revealed the obstruction of air while pronouncing the consonant



1.3 The Pronunciation of /v/ at Different Word Position by Shina Speakers

Table 4 shows the pronunciation of English post-alveolar fricative /ʒ/ in the word initial, medial, and final position. The Shina speakers always pronounced /ʒ/ as /dz/ and sometimes produced the sound /g/ or /z/ to replace the /ʒ/ sound. They face problems pronouncing the /ʒ/ on the word medial and initial positions. The participants are asked to pronounce the following words:

Vision /viʒn/
Genera /ʒɑ̃:nrə/
Decision /disiʒn/

1.3.1 Showing the Consonant /ʒ/ at Different Word Position

	Number of the occurrences by different speakers of the word		
Pronunciation of /ʒ/	**Word initial position**	**Word medial position**	**Word final position**
/ʒ/	0	0	2
/dz/	20	15	14
/g/	0	0	4
/z/	0	5	0

Table 4 has revealed that the consonant /ʒ/ was pronounced correctly by two participants at the word-final position while 14 participants have pronounced as /dz/ and 4 has pronounced as /g/. In the case of word-initial position, all the participants have pronounced /dz/ while 15 participants have pronounced as /dz/ and 5 participants have pronounced as /z/ at the word-final position.

1.3.2 The Pronunciation of /ʒ/ in the Word Initial Position

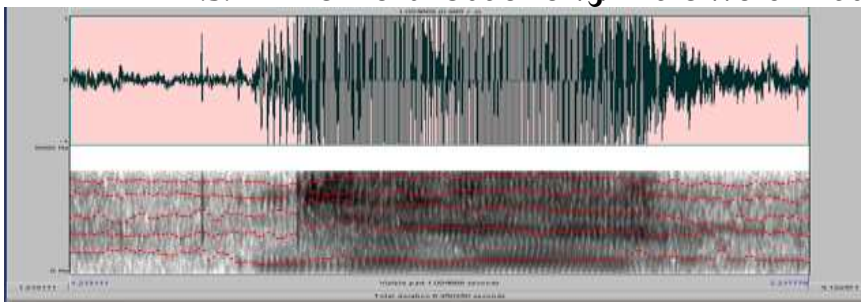


Figure 18: Showing /ʒ/ at word initial position

Figure 14 has shown the pronunciation of /ʒ/ as /dz/. The spectrogram shows the pronunciation of the word /genre/ b/dy the participants as /dz/. Many participants pronounced the word "vision" by using the sound in the word final position as /z/ and /dz/.

1.3.3 The pronunciation of /ʒ/ at the medial position as/dz/

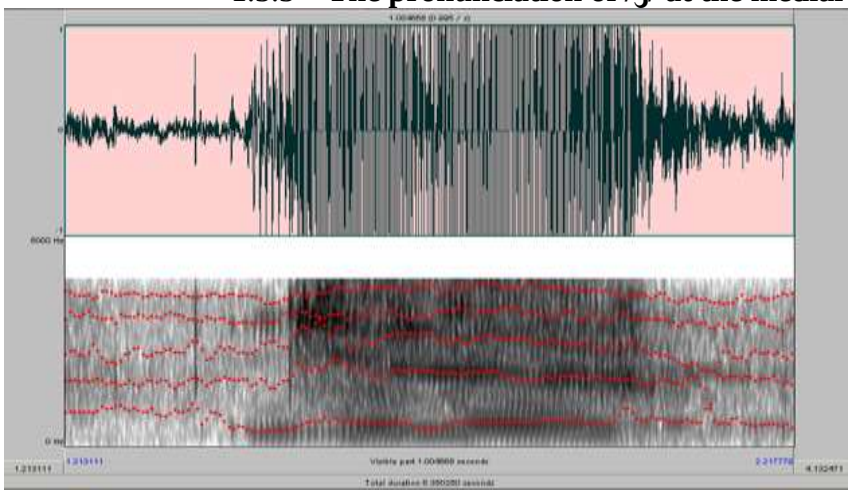


Figure 19: Showing /ʒ/ as /dz/ at word initial position

Figure 16 has shown that all participants produced the word /ʒ/ as /dz/ in the medial and final position of the word. While producing the sound /ʒ/ the plato alveolar sound is produced that is /dz/.

1.3.4 The Pronunciation of /ʒ/ as /g/ at the Word Final Position

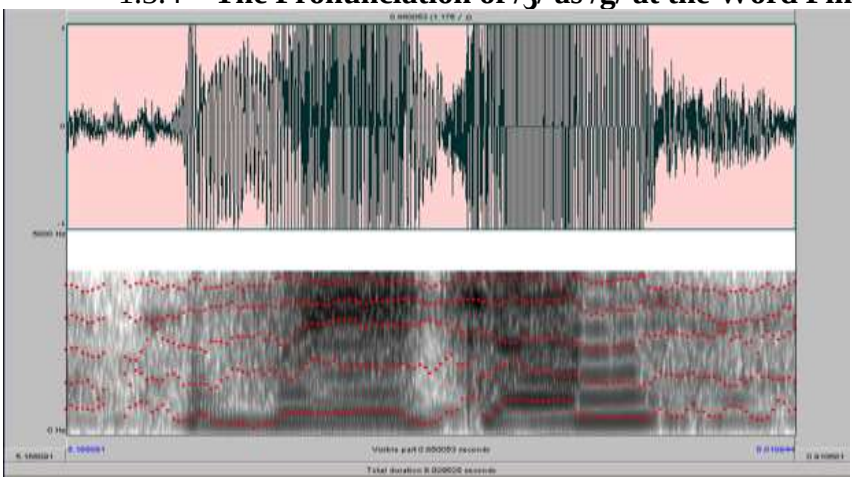


Figure 20: Showing /ʒ/as /g/ at word final position

The word /montage/ has been mispronounced by the pa)participants (Figure 17). The spectrogram has shown that that the voice stops have been converted into velar /g/. The word was pronounced by the two participants as /g/ and the rest of the participants produced as /dz/.

1.4 The Pronunciation of English Consonant /ð/

Table 5 has shown that the participants pronounced the dental voiced fricative in two ways either they pronounce Shina dental plosive or dental voiceless plosive. Initially, all the participants have pronounced it as /d/. But in the medial and final position, it has been pronounced /ţ/. The participants were asked to pronounce the given words:

There /ðer/

Loathsome / ləʊðsəm/

1.4.1 The Word Initial, Medial, and Final Position by the Shina Speakers

Pronunciation of /ð/	Number of the occurrences by different speakers of the word		
	Word initial position	Word medial position	Word final position
/d/	20	00	00
/t/	00	20	20

1.4.2 The Pronunciation of /ð/ in the Word Initial Position

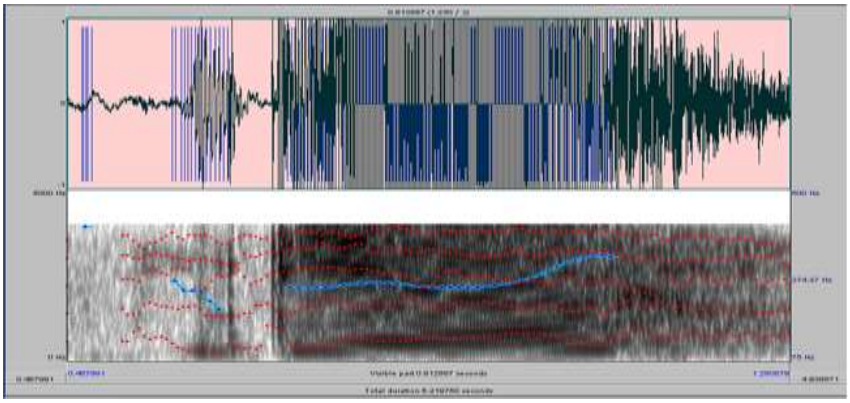


Figure 21: Showing /ð/ at word initial position

1.4.3

Figure 19 has exposed the pronunciation of the word /loathsome/ in which the participants have produced the /ţ/ sound instead of /ð/ because the speakers have easily converted the dental fricatives into a dental stop or dental plosives. While production of the sound /ð/ after the vowel they released air with complete obstruction resulting in the production of /ţ/.

The Pronunciation of /ð/ as /t/ in the Final Position of the Word

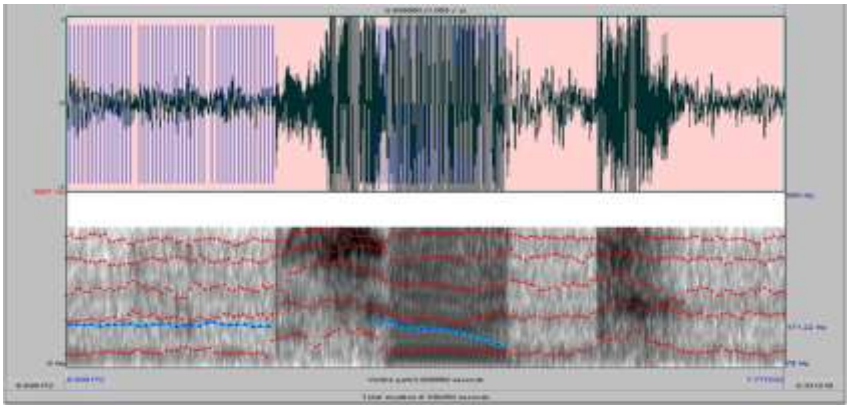


Figure 22: Showing /ð/ as /t/ in word final position

The Pronunciation of /ð/ as /t/ in the Final Position of the Word

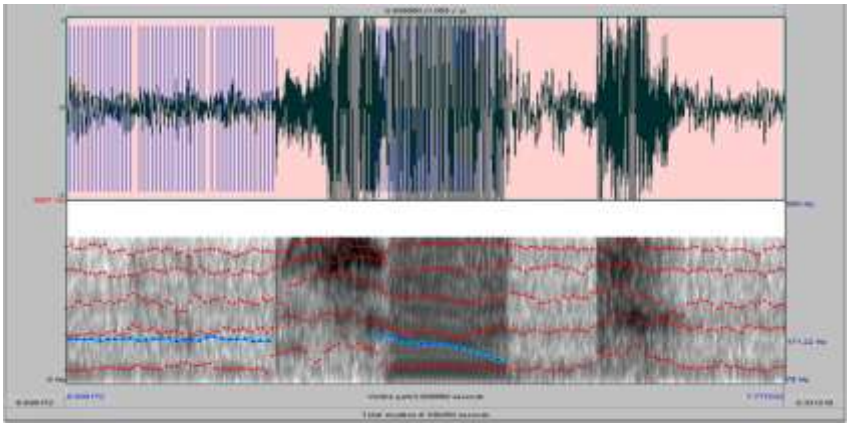


Figure 23: Showing /ð/ as /t/ in word final position

Figure 20 has shown the pronunciation of /ð/ as /t/ by the participants. The spectrogram has shown the use of dental plosive instead of dental fricatives by the participants as the speakers have stopped the air and released it at once resulting in the production of dental plosive sound.

Discussion

The previous relevant literature with the connection of research questions and present study led the researcher to use Optimality Theory which was proposed by "Prince and Smolensky" in (1993). This theory has been selected as the theoretical framework of this research. This theory explains to signify the differences between the language sounds. This theory assumes Universal Grammar and illustrates universal principles of child first utterance phonemic sounds. This approach elaborates the restrictions regarding language restraints. These limitations are based on language principles. According to Hyman (1975), some sounds are more difficult to produce and are found less commonly in languages. The consonants like /p/ and /b/ are more natural can easily be found and produced. Such sound would have occurred in all the languages in the world. On the other hand, affricate-like/ts/ sounds are more difficult to produce and cannot find in all the languages in the world. Archangeli and Langendoren, 1997, have given the universal parameters and trends of the syllable. Through these parameters, we can easily find out the hindrances of ESL learners while learning phonology. Furthermore, Smolensky elaborates the learner will choose the input representation that matches the adult output representation as to the optimal output. This follows the two rules of optimality, richness the base and lexicon optimization. Apart from these phonological restrictions, the researcher developed a closed-ended questionnaire. This questionnaire was distributed among the language teachers of various colleges of Gilgit Baltistan. The responses have been collected and analyzed statistically. The result of the questionnaire proves that the ESL Shina learner faced problems while pronouncing certain fricative consonant sounds. The study by answering the research questions through using quantitative and experimental research design with closed-ended questionnaires. The software Praat was used to analyze the obtained data. The study investigated that some English consonant sounds created problems for the Shina speakers. Through this study, it was observed that the Shina speakers replaced the English consonant sound with Shina consonant sounds based on their manner and place of articulation. Additionally, the results had revealed that in the Shina language the dental fricative sounds are not present so, the Shina speakers usually replace the sound with dental plosives or stops. This study also showed that the different phonemic positions at the word-initial, medial, and final positions exposed the replacement of English consonant sounds into Shina consonants. The problem occurred due to the not existing sounds.

The Shina speakers faced problems in the consonant sounds especially in the labiodental fricative sounds. The results of this study proved that there were some sounds which the Shina speakers pronounced that resembled sound of their native language. Some audio-visual techniques were used to eradicate the pronunciation problems. The audio-visual techniques not only help the learner to improve the pronunciation but also help to develop grammar and vocabulary. The given table showed a concise discussion of the findings of the study.

2.1 English consonant sounds replaced by the Shina ESL speakers

Table 2: English consonant sounds replaced by the Shina ESL speakers

Selected English Consonant	/ʒ/	/f/	/θ/	/ð/	/v/
Pronunciation by Shina Speakers	/dʒ/	/ph/	/ʈ/	/d/	/w/

The results of the study pointed out that the Shina speakers faced hindrances while pronouncing the selected English consonant accurately. The problem that occurred between the two systems was the phonological differences. Therefore, most of the participant's pronounced English consonants like Shina consonant sounds. English palate alveolar voiced stop /ʒ/ is pronounced

as /dʒ/ by Shina speakers. In this position, the manner of articulation in both languages was the same but the place of articulation is different. In Shina language, there was no sound like Plato alveolar that is why the participant used velar sound due to the ambiguous spellings of the word. When the L2 learners were familiar with the sound they had correctly pronounced the words. The labiodental voiceless sound /ph/ stop by Shina speakers showed that no labiodental fricatives were present in the Shina language. The results of the occurrences at different positions of the word in initial, medial and final position, 34 occurrences were correct. In the word initial position 20 occurrences were correct and 9 occurrences were correct in the medial position. Similarly, some different results were observed in the pronunciation of the labio-dental voiced fricative pronounced as glide /w/ at the word-initial position and combination of two vowels as /eʊ/ in the word-final position by Shina speakers. The /eʊ/ is not present in the English language. Furthermore, the studies have shown that the dental voiced stops were pronounced by the Shina speakers into dental stops. The participant initially pronounced as /ţ/ and /d/ adopted in their native sounds. It was pronounced by the participant as /d/, and in the final position, it was pronounced as /t/ by all participants. Sometimes the participants replaced /ţ/ for /θ/ this was happened because of a lack of awareness. In the Shina language, many fricatives existed but their place of articulation is different from the English fricatives. As far as semi palatal semivowel is concerned it was often used /ie/ by Shina speakers. Pronunciation of the alveolar consonant was pronounced as dental in the Shina language. So, the places of articulation of both sounds are different thus, their manner of articulation is the same. While pronouncing /r/ in English the shape of the mouth is like a saucer but in Shina language, the tongue touches the upper back teeth with a sound trill. So, the Shina speaker mispronounced the sound. In Standard English /r/ was not pronounced at word medial and final position after a vowel sound with some exceptions but here Shina speakers pronounced it at both positions except five occurrences. This is not the effect of any native sound but just because of a lack of awareness of the English language. All the discussion above regarding the place and manner of articulation it was concluded that the following two kinds of results were brought forward about the difficulties in pronunciation by the Shina speakers while learning and speaking English. Some sounds were not present in the English language. The Shina speakers trying to find out the most resembled phonemes that do exists in their language as dental fricatives are replaced by the dental stops or plosives because the dental stops are nearer to the dental fricatives. Secondly, there were some sounds in English as well as in Shina having the same place and manner of articulation but they pronounced it inaccurately. Similarly, we have the word /j/ which has the same place of manner and articulation but in the medial position, the participant pronounced it incorrectly. The difficulty between the two languages creates hindrances for the speakers. It was a universal phenomenon that there was some sound that was pronounced correctly because the tongue and the vocal organs were not used to pronounced or produced such sound. So, they needed the regular practice and exercise of the organ to produce that sounds. There is a need for awareness that was given to the speakers that the alphabet did not stand for the sounds as well. So, the speakers easily learned that sounds.

2.2 The Common Errors in Pronunciation Made by Shina Speakers

The analysis of this research brought forward the phonological aspects that have a significant role in the intelligibility of Shina speakers when they spoke the English language. This study also highlighted the consonant sounds that created hindrances in pronunciation for Shina speakers while interacting and learning English as a second language. The study demonstrated that the experimental method had exposed consonant sounds that were not present in the Shina language problems in pronunciations. This research verified that the sounds /θ/, /ð/, /f/, /w, /ʒ/ do not exist in Shina language create hindrances for Shina speakers. The findings of the study revealed that the Shina speakers mostly mispronounced the dental fricative sounds because their vocal cords were utilized to producing the dental plosive sounds. The figure of the spectrogram showed that the Shina speakers replaced the consonants in the appropriate sound

of their language. With the help of the closed-ended questionnaire, the hindrances and the causes behind mispronunciation were found out (Chapter 4).

2.2.1 **Dental Bilabial Fricatives /f/ as /p/**

The analyses and findings of the research exposed the place and manner of articulation that the Shina speakers pronounced instead of the /f/ into /p/ or /ph/ sound. In Figures 1 to 7 in the word initial, medial and final position was shown. the figure of the spectrogram that highlighted the black area showed the sound differences in respect to the pronunciation of RP. The occurrence of the participants has shown the hindrance while producing the sound /f/.

2.2.2 **Post Alveolar Fricative /ʒ/ as /dʒ/, /z/ and /g/**

Table 4 showed the participants' occurrences and the figure of spectrograms revealed that the Shina speakers mispronounced the sound, instead of /ʒ/ the consonant /dz/, /z/ and /g/ was used. Due to the movements of vocal cards, manner, and place of articulation the speakers produced the appropriate sounds to find their language

2.2.3 **Labio Dental Voiced Fricative /v/ as /w/**

The findings of the study revealed that the labiodental fricative sound was pronounced by Shina speakers at word-initial, medial, and final position as /w/. The spectrogram showed the movements of the vocal organs. The highlighted area in the spectrogram exposed the hindrances of the Shina speakers (Figure 8).

2.2.4 **Dental Voiceless Fricatives /θ/ as/ţ/**

The analysis of the sound through spectrogram in (Figure 11 to 13) showed that the Shina speakers pronounced /t/ instead of /θ/. The analysis showed in the word-initial, medial, and final. The place and manner of articulation revealed the differences between the sounds. This also highlighted that the hindrances and the vocal organ while producing the sounds. The response of the participants exposed the mispronunciation due to the movements of the vocal organs. The vocal organs were not used to produce the same sounds.

2.2.5 **Dental Voiced Fricative /ð/ as /d/ and /ţ/**

In the Shina language, no dental fricative sounds existed only the dental plosives sound or stops were included. So, the Shina speakers mispronounced the consonant fricatives of English. The results of the research showed that the speakers mostly pronounce the word /ð/ as /ţ/ and /d/ in the word-initial, medial and final positions (Figure 18-20). The occurrences and the responses of the participants were given in Table 5. The above discussion and analysis explained the research question of the study that how and why the Shina speakers faced problems while learning English as a second language. It also dealt with the difference between the inventories of the consonants among the two languages. The responses of the participants exposed all the hindrances faced by the Shina speakers while pronouncing the dental fricative sounds. Similarly, the second question is concerned with the eradication of the common problems. So, the researcher propagates some audiovisual techniques to improve the phonological errors.

2.3 How Can Audio-Visual Techniques be Effective to Eradicate the Errors in Pronunciation for Shina ESL Speakers?

The use of audio-visual techniques was suggested to counter the issue of mispronunciation among the Shina learners. The audio-visual techniques are that beneficial equipment that helps both the teachers and learners to utilize the sense of vision and hearing at the same time during the language teaching classes. Different approaches have been described by the scholars previously regarding audio-visual techniques. Burton (1960) explained that ‘audio-visual aids were those sensory objects or images which initiate or stimulate and strengthen the learning. ‘in the account of learning, according to Good (2009) the ‘audio-visual techniques’ are anything utilizing which learning process may be encouraged or carried out through the hearing or senses of the sight. Mackean and Roberts (2000) said that the ‘audio-visual aids are supplementary devices by which the teacher, through the realization of more than one sensory

channel can clarify, establish and correlate concepts, interpretations, and appreciation. The above all given definitions exposes the importance of audio-visual aids to facilitate the teaching and learning process. Moreover, the audio-visual aids help the learner to learn the foreign language and develop their oral communication. This will allow the learner to hear and see the language used by the native speakers. So, this method motivated the learner to make the course interesting and fruitful. Through the implementation of various drills during the investigation these drills in the language class were effective to learn the second language. It was noticed that the learner had easily pronounced and reduced the hindrances while pronouncing the sounds. These drills which were implemented to investigate this study comprised of listen and repeat activities, phonology drills, sound drills, songs and rhymes, phonological replacement.

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