Correlation between the Written and Verbal Performance of Punjabi Speaking Learners in the Area of EnglishPure Vowels

Dr. Muhammad Uzair
Lecturer, National University of Modern Languages, Islamabad

Arshad Mahmood
Assistant Professor, National University of Modern Languages, Islamabad

Arshad Mahmood Raja
Lecturer, International Islamic University, Islamabad

Abstract:*Technically speaking,correct pronunciation means correct articulation of speech sounds in a given context.Degree of successful communication is determined by the degree of correctness of pronunciation. Pronunciation becomes even more important when we think of foreign language teaching and learning since learners learn a foreign language mainly for the sake of communication. Comparing mother tongue pronunciation with L2 pronunciation, the latter appears to be far more difficult to cope with due to different factors and L1 interference is one of them. The present study was carried out to find out correlation between the written and verbal performance of Pakistani learners in the area of pronunciation with regard to English monophthongs or single vowels. The study sample(N=79) comprised Punjabi speaking Pakistani learners of English studying at Diploma Level in the National University of Modern Languages Islamabad, Pakistan. The data were collected with the help of a written test and a verbal test. Pearson Product Moment Formula was used for finding the degree of correlation between the written and the verbal performance of the study sample. The analysis of the data showed mediumrelationship in the area of English monophthongs which shows that the verbal performance improves with the improvement in the written performance. It also shows that students' verbal performance is not an exact reflection of their written performance. It is suggested that teachers teaching pronunciation should give their students ample verbal practice along with the written practice since only teaching of phonemic transcription and learners' improvement in it does not clearly reflect improvement in their actual pronunciation. It is also suggested that the teachers should pay more attention to those target language sounds which do not exist in learners' mother tongue. The results show that gender is not an important factor in terms of articulation of sounds.*

Key words: phoneme, monophthongs, correlation, Punjabi

1.1 Introduction

One cannot ignore the importance of pronunciationin teaching/learning of a foreign language. It is due to two main reasons. Firstly, a learner learns a foreign tongue to enable himself to communicate in it. Secondly, he is not placed among the native speakers and has to learn this art with the help rules so that he can achieve the purpose of communication. This whole learning process is not an easy task and the learner has to be very careful while learning and assimilating the target language and minimizing the mother tongue interference at the same time. It is true that learners always find it hard to learn a foreign language and it becomes even harder when they have to learn a language like English. It is mainly because of two reasons. Firstly, English lacks one- to- one correspondence between its sounds and the letters of the alphabet. Secondly, the whole phonological patterning of English shows that vowel sounds play very mighty role in its sound system because of its vocalic richness. One very effective way to teach English pronunciation is to do it with the help of phonemic transcription which can be termed as the written form of speech. However, teaching phonemic transcription without providing sufficient verbal practice does not guaranty accuracy in actual verbal pronunciation. With this idea in mind the researchers formed the following research question.

1.2 Research question

What is the degree of correlation between the written performance and the verbal performance of Punjabi speaking learners of English in the area of English monophthongs?

1.3 Objectives

The researchers undertook the study with the aim to find out:

The degree of correlation between the written performance and the verbal performance of Punjabi speaking learners of English in the area of English monophthongs
The most difficult English monophthong/s with regard to articulation
The most difficult English monophthong/s with regard to phonemic transcription

1.4 Significance of the study

Phonemic transcription is an art which shows that the performer is able to recognize the phonemes of English language and he can also attempt them correctly. Unluckily, this is just one side of the picture which shows impressive performance on the part of the learner in most cases. The other side that goes untested is the verbal side. Considering the immense importance of what relationship the written performance has with its verbal counterpart, the present study is surely significant. Besides, the study also

proves that teaching of English phonemic transcription by English language teachers is not a futile exercise and that it helps learners in improving their pronunciation.

1.5 Delimitation

The present study was delimited to the Department of English, National University of Modern Languages (hereafter NUML), Islamabad and it was conducted at Diploma level only.

1.6 Literature review

Vowels and their Importance in English Phonology

Human speech sounds fall under two main categories. These are vowels and consonants. Consonants are produced by partially or completely blocking the airstream at some point in the vocal cavity and understanding of issues such as Place and Manner of Articulation enhances one's sense of understanding and appreciation of these sounds. Vowel sounds on the contrary are produced by allowing the airstream to pass through the vocal cavity unhindered.According to Trask and Scotwell (2007, p.321) a vowel isa human speech sound which is produced without any obstruction or blockage of the airstream. Though there are languages in the world which have voiceless vowels in their phonological system,generally vowels are voiced sounds. This means, voicing is one of the benchmarks of most of the vowel sounds in the world(Kaye, 1989; crystal, 1995; Barber, 1972; Collins &Mees, 2003, 1968; Giegerich, 1992; Ladefoged, 2001).Voicing means vibration of the vocal cords.

Since they are rather fluid in terms of Place and Manner of Articulation, it is naturally difficult to spot them, explain them and teach them. According to O'Grady, Dobrovolsky& Katamba (1996, p.37) vowel articulations are not easy since the vocal tract does not experience any narrowing that is the hallmark of consonant sounds.

Despite all these difficulties posed by vowel sounds, they are extremely important sounds whose contribution to the overall make up of language is very significant. For example, due to their role as the prosodic head of what is called the syllable (Keating1996, p.101),vowels always capture the nucleus in a syllable.They become even more important in case of languages such as English and Russianwhich are stress timed and also employ a lot of intonational activity. Similarly, their importance increases manifold where they put on deceptive role. English is one such example where orthographic patterns behave abnormally mainly due to the inconsistent role played by vowel sounds. Furthermore, why they assume such an importance in a non-phonetic language like English is primarily because of their richness. Their rich presence in the language naturally allots them rich roles to play.As a result, a language that is already irregular orthographically as well as stress-timed in suprasegmental terms turns out to be an absolutely mind-boggling language. Vocalic deception manifested by English can be observed in case of sound values

where the same vowel letter or the same vocalic combination assumes different sounds in different orthographic contexts. Without any exaggeration, English is replete with such instances where a letter does not produce what it is supposed to produce logically. For example, 'ea' and 'ough' combinations are pronounced utterly differently in different contexts.

Besides playing very powerful role in the area of lexical stress and orthography, English vowel sounds appear to be ubiquitous in the language and they seem to be the phonological blood that runs through the veins along the whole body of the language .One gets amazed to see how abundantly they are responsible for engineering and crafting a whole gamut of what is termed as the fluency devices in the language. These fluency devices are generally put under the categories of weakforms (where the version of a word other than the standard one is pronounced: Crystal, 1995, assimilation (where sounds are influenced by the very neighbourhood: Valentine, 2001, elision (the loss of a phonological material: Pascoe, Stackhouse, and Wells,2006), linking / r /, intrusive / r / and so on.

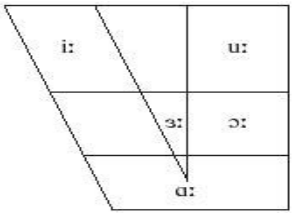
Talking about the exact number of vowel sounds in the standard British English called RP (Received Pronunciation), they are 20 major vowel sounds (excluding 5 triphthongs).These 20 sounds are further broken up into 12 monophthongs or pure vowels and 08 diphthongs or double vowels. As far as the single vowels are concerned, they are further divided into two main categories:short sounds and long sounds. Such vocalic richness in English makes it phonologically very difficult for its foreign learners. Pakistani learners of English are also troubled by these sounds since they too are foreign learners of English.Abbas(2011, p.15)substantiates it by saying that vowels are comparatively more difficult to learn for Pakistani learners. Hashmi (2011, p.3) validates this claim by asserting that the English language is more difficult with reference to vowel sounds.

English has five long monophthongs whose length is denoted by the dots beside them though none of the English letters in the whole range of the alphabet makes use of such dots. The length is an important issue in the study of vowel sounds in a language, especially English since the reduction of the length of a vowel sound will force it into the area of its shorter counterpart resulting in semantic change ,e.g. sheep/ship, beat/bit.

It is easier to study vowels with the help of the quadrilateral which is a standard reference point for finding the precise location of a sound. It stands for the empty shape inside the vocal cavity and also indicates the different heights assumed by the different parts of the tongue(Jones,1976;Gimson ,1975 ,1994 ; Connor , 1982 ;Kreidler,2004;McCully,2009,Roach,2009).

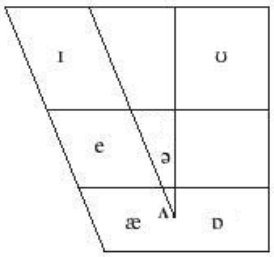
The following vowel trapezium shows the long English vowel sounds plotted at their exact places.

Fig.1. Long English Monophthongs, Daniel Jones, An outline of English Phonetics, Cambridge University Press. 1976.



Besides five long monophthongs, English also has seven short monophthongs which play crucial role in meaning making due to having distinct functional identity in the language. They are of all sorts: front, high, low, rounded and neutral. Their geographic location inside the trapezium is given below.

Fig.2. Long English Monophthongs, Daniel Jones, An outline of English Phonetics, Cambridge University Press. 1976.



1.7 Research methodology

The current study is correlational in nature since it seeks to answer the question as to what is the degree of correlation between the written transcription and the verbal pronunciation of Punjabi speaking learners of English in the area of English monophthongs. According to Mertens (2009, p.152),it is true that correlational research can be used to draw comparisonsbetween group, it mainly focuses on yielding an estimate of the volumeor degree of the relationship that exists between two variables. According to Weiten (2010, p.44),the associationthat exists between two or more variables is called a correlation.

The researchers selected all the Punjabi speaking boys (41) and girls (38) studying at diploma level. In order to collect the data, they developed two tests (annex A & B). One of them was used to collect the written data whereas the other was used to collect the verbal data in the form of recordings. The written performance and the recordings were carefully evaluated and marked. The scores were then correlated with the help of PearsonProduct Moment Formula. It is also called the co-efficient of simple correlation or total correlation. The simple linear correlation co-efficient for *an n pair of observations(X)* is provided below:

$$r = \frac{n\sum xy - \sum x \sum y}{n\sum x^2 - (\sum x)^2 \sqrt{n\sum xy^2 - (\sum y)^2}}$$

In the formula above, *n* stands for the number of study sample whereas *x* and *y* denote two different variables which are written and verbal performance in case of the present study.

1.8 Data analysis

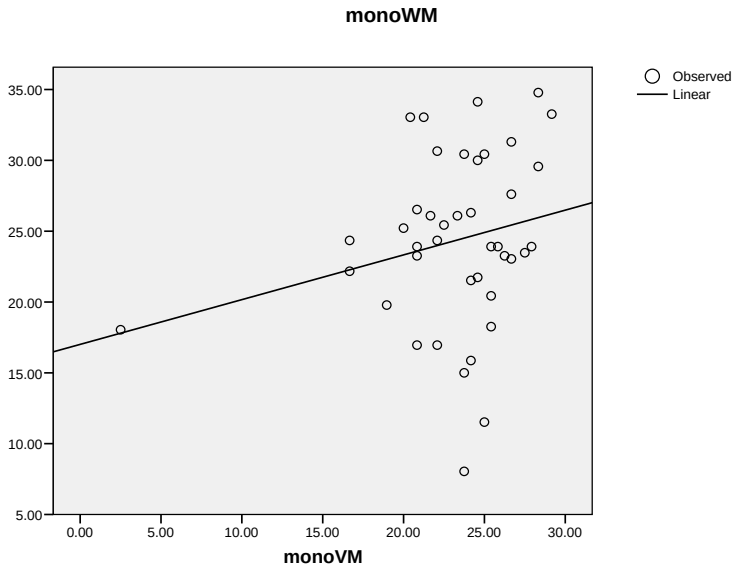
Table 1: Correlation between Written and Verbal Tests for English Monophthongs by Punjabi Speaking Males

		monoWM	monoVM
monoWM	Pearson Correlation	1	.404(**)
	Sig. (2-tailed)		.009
	N	41	41
monoVM	Pearson Correlation	.404(**)	1
	Sig. (2-tailed)	.009	
	N	41	41

** Correlation is significant at the 0.01 level (2-tailed).

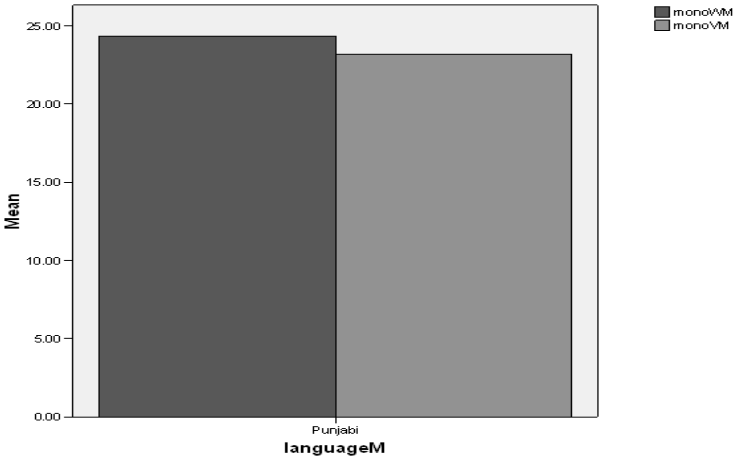
Table 1 indicates correlation coefficient i.e. r =0.404 between written and verbal performance in the area of English monophthongs by Punjabi speaking male members of the sample (N 41). As shown in the table, correlation coefficient (value) was found statistically significant at p=0.032 i.e. 95% chance of relationship between the scores for verbal and written performance in the area of English monophthongs.

Plot 1: Scatterplot showing Correlation between Written and Verbal Performance for English Monophthongs by Punjabi Speaking Males



The plot indicates correlation between written and verbal performance in the area of English monophthongsby Punjabi speaking male members of the sample (N 41). Plot shows medium relationship between written and verbal scores because most of the observed values are away from the linear line.

Figure 3: Comparison between the Written and Verbal Scores for Monophthongs by the Male Members with Punjabi Language Background



The figure 3 shows the overall performance of the Punjabi male members in the written and verbal tests for English monophthongs. There appears to be very close competition between the scores for written and verbal tests with the written performance taking slight lead.

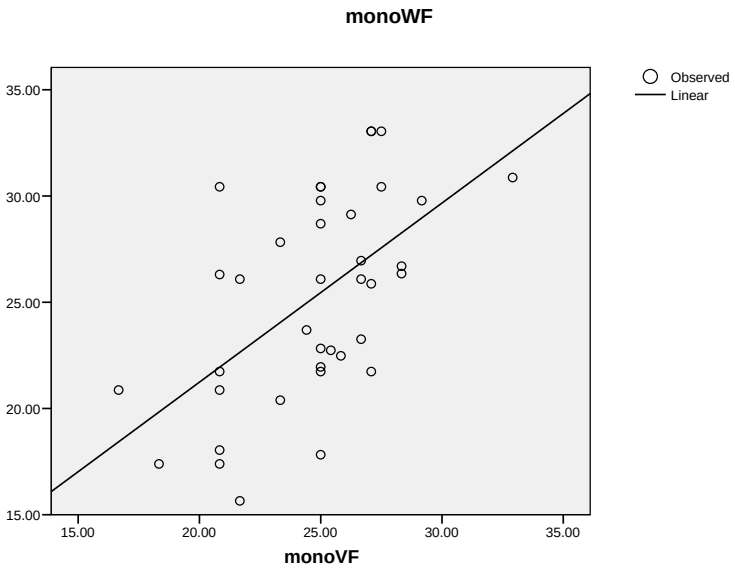
Table 2: Correlation between Written and Verbal Scores for English Monophthongs by Punjabi Speaking Females

		monoWF	monoVF
monoWF	Pearson Correlation	1	.563(**)
	Sig. (2-tailed)		.000
	N	38	38
monoVF	Pearson Correlation	.563(**)	1
	Sig. (2-tailed)	.000	
	N	38	38

** Correlation is significant at the 0.01 level (2-tailed).

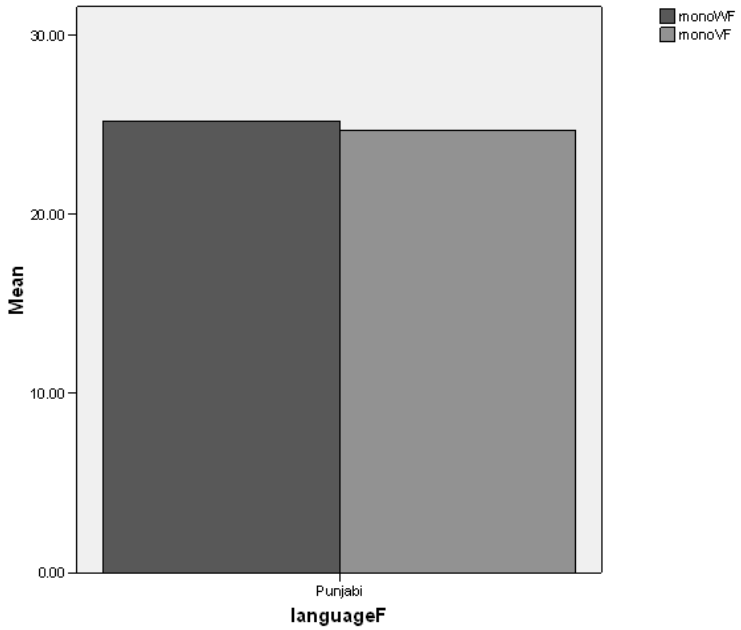
Table 2 indicates correlation coefficient i.e. r =0.563 between written and verbal performance in the area of English monophthongs by Punjabi speaking female members of the sample (N 38). As shown in the table, correlation coefficient (value) was found statistically significant at p=0 i.e. 99% chance of relationship between the scores for verbal and written performance in the area of English monophthongs.

Plot 2: Scatterplot showing Correlation between Written and Verbal Scores for English Monophthongs by Punjabi Speaking Females



The scatterplot indicates correlation between written and verbal performance in the area of English monophthongs by Punjabi speaking female members of the sample (N 38). Plot shows medium relationship between written and verbal scores.

Figure 4: Comparison between the Written and Verbal Scores for Monophthongs by the Female Members with Punjabi Language Background



The bar on the left side shows the performance in the written test for the monophthongs. Comparing it with the right bar, it is quite clear that the female members with Punjabi background performed very close in the tests for the monophthongs.

1. 9 Findings

1. The sample on the whole scored higher in the written performance as compared with the verbal performance.
2. Most members of the sample committed many mistakes in verbal performance as well as in written performances in the articulation of English monophthongs.
3. As far as the first monophthong / iː / is concerned, which is a long, high, close and front vowel sound, the students did not face much problem.
4. The second monophthong / ɪ /which is a short vowel sound did not pose much problem either.
5. / e / was difficult to pronounce but not in all contexts. It proves that the learners were not troubled by the articulatory nature of the sound but by the context itself in which it appeared at places since the same student pronounced it differently in different lexical contexts.

6. The study sample did not seem to have much trouble in this sound though in certain lexical contexts they changed the sound into / e /.For example, many of them pronounced the word 'fax' as / feks /.It means, these members were not able to open their jaws for this sound at some places.
7. / a: / is low back open sound. It did not pose any problem for the study sample.
8. Vowel No. 6 / ɔ: / proved to be one of the most difficult sounds. Most learners were unable to articulate this sound correctly which shows distinct identity of this sound.
9. Vowel No. 7 / ɒ / that is the shorter counterpart of vowel No. 6 was less difficult to pronounce by the learners. Elongation of this sound was a common feature shown by many members of the sample. In the verbal test, the performance was better.
10. The long monophthong No. 8 / u: /did not trouble the learners in terms of height, back/front areas or even rounding. The only feature where the whole sample seemed unconscious performer was the issue of its length. In the verbal test, majority performed with more or less same length. In the verbal test, the performance was better.
11. Vowel No. 9 / ʊ / was not difficult to pronounce either. In the verbal test, most members of the sample pronounced most words for this sound in correct manner. Conversely, they committed more mistakes in the written test.
12. What appeared to be the most difficult sound like / ɔ: / was the so-called hut or cut sound / ʌ /.It was hardly pronounced in its correct manner by any member of the sample. Most of the sample members confused its articulation with the last English monophthong / ə /called schwa or shwa. The ones who pronounced it slightly better articulated it in the area between schwa and it.
13. The long monophthong No. 11 / ɜ: /, also called 'bird' sound or hesitation sound posed a great deal of difficulty for the learners making it one of the most difficult vowel phonemes to articulate. Most members of the sample changed it into 'schwa' or a mixture of 'schwa' and the 'hut' sound though some of them did well in it. The sample performed far better in the written test for this sound.
14. The last monophthong called schwa or neutral vowel of English did not pose any serious threats and there were not many mistakes committed by most members of the sample in articulatory terms as far as the verbal test is concerned. In the written most members of the sample committed a number of mistakes of different nature, thus scoring lower in the written part.

1.10 Discussion

The present study was conducted with an aim to find out the correlation between the written transcription and the verbal pronunciation, in the area of English monophthongs, of Pakistani learners of English with Punjabi background. The performance put up by the sample members in both the tests shows that verbal pronunciation improves with improvement in the written transcription. This indicates that there is a positive correlation between the both though it was found out that Punjabi learners of English face a

number of difficulties in articulating some of the English monophthongs. It is quite natural since some of the English monophthongs have their own unique articulatory configuration though they appear to be similar to learners' mother tongue sounds. Problems found in thearticulation of English monophthongs in the present study validate the findings ofAbbas(2011)andHashmi (2011).

1.11Recommendations and suggestions

Based on the findings of the research, the researchers have put forward the following suggestions and recommendations:

1. Vowel sounds should be treated more carefully than consonant sounds due to their unique articulatory nature.
2. Length modulation is a key feature of English vowel sounds which totally depends on the voicing of the vocal folds. It makes a lot of perceptual difference on the part of the listener. Therefore, Punjabi learners of English should be given a great deal of practice in this area.
3. Considering the above mentioned point, the first phoneme/ iː / of the English sound system should be taught by paying attention to the issue of length otherwise phonemic distinction may be lost in different contexts. For example, a student may confuse seat/sit, deed/did, cheat/chit etc.
4. While teaching vowel sounds, configuration of the jaws must be focused for better understanding of the sounds. For example, the third / e / and fourth / æ / sounds should also be taught carefully since confusing these sounds results in something totally different semantically. In case of these sounds, Pakistani learners of English commit some word-specific mistakes. They should be made aware of the pronunciation of words with the help of drills on the white board as well as with the help of audio/visual aids. For example, they should be made to realize that the words 'heavy', 'many' , 'any' , 'seven', 'better' and so on should be pronounced with vowel No. 3/ e / ,not with ash/ æ /.
5. Lip rounding plays important role in the production of vowel sounds. Therefore, students should be taught the difference that different lip positions cause to these sounds. For example, vowel No. 6 / ɔː / is the most difficult sound as shown by the analysis of the data and its mainly due to the typical position assumed by the lips to articulate it and this is where Punjabi learners of English fall prey. Therefore, it should be treated more carefully and technically than any other sound. For this sound, a great deal of practice along with comparison with students' mother tongue sound is needed. This will give them chance to appreciate the difference between it and their mother tongue sound that may appear identical otherwise. To teach this sound more effectively, visual aids would be a great help since they are more useful in explaining the issue of rounding.
6. Vowel No. 7 / ɒ / which is the shorter counterpart of vowel No.6 is less difficult than the latter. This can be taught more effectively with the help of minimal pairs to distinguish it from its longer

counterpart. Minimal pairs such as 'cot and caught', 'shot and short', 'pot and port' are very effective in this regard.

7. Vowels No.10,11 and 12 / ʌ /,/ ɜ: /and / ə /are three English monophthongs which create a great deal of trouble for Punjabi speaking learners of English in terms of articulation due to their close proximity inside the vowel tract(see trapezium for better understanding). Besides, students find it very difficult to appreciate the auditory differences which these sounds carry. As a result, they find it hard to differentiate one sound from the others in different lexical contexts. Therefore, the use of minimal pairs is the best way to teach the differences which these sounds have.
8. On the whole, the teaching of vowel sounds can be made easier if carried out with the help of audio-visual aids which include white board, flash cards, charts and diagrams, videos, classroom activities and exercises.
9. As far as further research is concerned, there is a great room for causal comparative as well as experimental researches in the area of English monophthongs.

10. 1.12 Conclusion

The detailed analysis of the data shows that monophthongs are not difficult sounds for Punjabi speaking learners mainly in terms of articulation though they confuse some of these sounds in the phonemic transcription as well as verbal pronunciation. The study sample on the whole scored higher in the written performance as compared with the verbal performance .Most members of the sample committed mistakes in verbal performance as well as in written performance in the area of English monophthongs.

References

Abbas, S.*(2011).Identification of pronunciation problems regarding uttering centring diphthongs at elementary level in Pakistan navy model school,E-8,Islamabad.*(Unpublished Master's Thesis*)*. National University of Modern Languages, Islamabad.

Collins, B.& Mees, I.M.(2003).*Practical phonetics and phonology: a resource book for students.* London: Routledge.

Crystal, D. (2008). *A dictionary of linguistics and phonetics* (6th ed.). Oxford: Blackwell publishing.

Crystal, D.(1995).*The Cambridge encyclopedia of the English language.* Cambridge:Cambridge University Press.

deSaussure,F.(1966).*Course in General Linguistics (edited by Charles Bally and Albert Sechehaye in collaboration with Albert Riedlinger).* New York: The Philosophical Library.

Giegerich, H. J. (1992). *English phonology: an introduction*. New York: Cambridge University Press.

Gimson,A.C.(1975).*An Introduction to the pronunciation of English*. London: The English Language Book Society and Edward Arnold (Publishers)Ltd.

Hashmi, M.A.*(2011).Problems Faced by the Students of OPF in the Articulation of English Monophthongs*(Unpublished Master's Thesis). National University of Modern Languages, Islamabad.

Jones,D.(1976).*An outline of English phonetics(9th Edition).*Cambridge: W. Heffer and Sons Ltd.

Kaye,J.(1989).*Phonology: A Cognitive View :*New Jersey: Lawrence Erlbaum Associates.

Keating,P.A.(Editor) (1996).*Phonological structure and phonetic form: papers in laboratory phonology111*.Cambridge:Cambridge University Press.

Kreidler,C.W.(2004).*The Pronunciation of English: a course book.*(2nd edition).USA: Blackwell Publishing.

Ladefoged, P. (2001). *A course in phonetics(4th ed.).* Orlando: Harcourt.

McCully,C.(2009).*The sound structure of English: an introduction.* New York: Cambridge University Press.

O'Connor, J. D.(1982).*Better English pronunciation* . Cambridge: Cambridge University Press.

O'Grady,W.,Dobrovolsky,M.,&Katamba,F.(1996).*contemporary linguistics.*London:Longman.

Pascoe, M., Stackhouse, J., & Wells, B. (2006).*Persistingspeech difficulties in children: Children's speech and literacy*.West Sussex: John Wiley and Sons.

Roach, P. (2009).*English phonetics and phonology: A practical course*. Cambridge: Cambridge University Press.

Valentine, R. (2001). *NishnaabemwinReference Grammar*. Toronto: University of Toronto Pres