

## Correlation between the Written and Verbal Performance of Pakistani Learners in the Area of English Pure Vowels

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**Abstract:** *It is an established fact that speech is the true reflection of the internal sound system of a language. Speech is comprised of a number of segmental and suprasegmental features. Segmental features are the phonemic features whereas suprasegmental features include stress, intonation and so on. Observing English pronunciation from these two different angles, we will find out that both have their own problems to pose, especially for foreign learners of English. What makes English such a labyrinth for its foreign learners is its phonemic richness, especially its vowel sounds which include monophthongs, diphthongs and triphthongs. This study was conducted to find out correlation between the written and verbal performance of Pakistani learners in the area of English monophthongs or single vowels. The study sample (N=375) comprised Pakistani learners of English studying at Diploma Level in the National University of Modern Languages Islamabad, Pakistan. The data collection was achieved with the help of two tests: one for written performance and the other for verbal performance. Pearson Product Moment Formula was used to find the degree of correlation between the study variables (written and verbal performance). The analysis of the data showed strong relationship in the area of English monophthongs which shows that the written and verbal performance of the study sample match up quite closely in this area.*

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**Key words:** phoneme, monophthongs, correlation, Pakistani learners, NUML

### Teaching of English pronunciation

The area of English language teaching and learning has always been very important though quite ignored one, (Arteaga, 2000; Pennington & Richards, 1986; Piske, Mackay, & Flege, 2001). The research carried out by Suter (1976, p 233) and Suter and Purcell (1980, p 286) suggests that 'little relationship exists between teaching pronunciation in the classroom and attained proficiency in pronunciation'. They also concluded that 'the attainment of accurate pronunciation in a second language is a matter substantially beyond the control of educators'. In contrast, Pennington (1989) questioning the validity of Suter and Purcell's findings states that there is 'no firm basis for asserting categorically that pronunciation is not teachable or that it is not worth spending time on...' (p.20).

Moreover, *what to teach* in the area of pronunciation has also been quite controversial and widely debated. Some advocate teaching of the segmental features of a foreign language, considering the teaching of suprasegmentals insurmountable (Jenkins, 2000; Levis, 1999; Pennington and Ellis 2000). On the contrary, the supporters of teaching suprasegmentals consider these features more crucial to promoting intelligibility (Avery & Ehrlich, 1992; Morley, 1991; Derwing & Rossiter, 2003).

. With teaching methodologies and techniques changing from time to time, materials for the teaching of pronunciation have also changed significantly over the past 50 years from emphasizing the accurate production of discrete sounds to concentrating more on the broader, more communicative aspects of connected speech. In other words, the teacher can make a noticeable difference if certain criteria, such as the teaching of suprasegmentals and the linking of pronunciation with listening practice, are fulfilled.

If this communicative competence is taken as a goal, Morley's (1991, p 488) premise, that 'Intelligible pronunciation is an essential component of communication competence' and that the teachers should include pronunciation in their courses and expect students to do well in them, seem quite logical and valid. Without adequate pronunciation skills, the learner's ability to communicate is severely limited.

Although there are challenges to teaching and learning English pronunciation, it is an area vital to English language learners' linguistic competence. The goal of pronunciation teaching and learning is communicative competence. Recent researches have shed light on pronunciation features to be taught and on learners' goals and motivations for improving their pronunciation. By incorporating current researches and their implications into their teaching practice, teachers can help learners gain the skills they need for effective communication in English.

## 2 Literature review

For several decades of the 20th century, the main interest of pronunciation teaching research was in applying Contrastive Analysis techniques to the sound segments of the L1 and L2 to identify differences between them and so, it was assumed, to highlight areas where L1 transfer errors were likely to occur. Later in the century, pronunciation teaching research began to move on both by embracing more sophisticated approaches to inter language phonology, taking universal, developmental, and other processes into account as well as transfer and by focusing increasingly on suprasegmental features along with the segmental ones. Pitt (2009) shows that learners need exposure to conversations so they can hear variation in pronunciation. By using audiotapes and videotapes, especially of speakers of different varieties of English, teachers can give learners meaningful exposure to variation in pronunciation and increase their communicative competence.

The English language learners in Pakistan approach the learning of English pronunciation from a wide variety of native language backgrounds and speak languages with sound systems that vary a great deal and are quite different from that of English. Their pronunciation goals, needs, and levels of English proficiency are also diverse but the common thing is intelligibility of their language. In order to enable their students to achieve intelligibility, teachers of pronunciation can exploit a number of techniques. "Teachers can learn a great deal by observing adult English language learners as they communicate with each other, noting the places where communication breaks down, and attempting to determine which pronunciation features caused miscommunications to occur. As they observe, teachers can develop a list of pronunciation features to focus on in class and jot notes on note cards to give learners feedback as they listen to group and pair work and learner presentations"(Grant, 2010, p. 4).

Looking at the sound system of English minutely, one finds it teeming with oddities besides being phonologically rich. Due to inherent difficult nature of English pronunciation, foreign learners of English face a number of problems and Pakistani learners are not an exception in this regard. As regards its pronunciation, English language offers a number of challenges. These challenges are

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both segmental and suprasegmental. The segmental ones are primarily concerned with the phonemes and their different combinations whereas the suprasegmental ones are stress, intonation and so on. Looking at very notion of language as a means of communication, one feels that it is the segmental features which are more crucial. Among the segmental problems posed by English, vocalic problems seem to be more difficult than consonantal ones. It is because English has a large inventory of vowel sounds and these sounds keep modulating their length according to the phonetic environment. In other words, it will not be wrong to say that English sounds are known by the company they keep. Apart from the issue of length, English pure vowels have a lot more to make them perplexing for foreign learners. Discussing the difficulties encountered by the Pakistani learners of English in terms of articulation, Hassan (2004, p.69) claims that great difficulties take place in the articulation of English vowels, diphthongs and triphthongs. It is partly due to the mother tongue influence and partly because of the inherent nature of these English sounds. Hashmi (2010) ratifies Hassan by calling English vowel sounds enigmatic which badly mar the performance of Pakistani learners in terms of articulation.

In another study on the vowel sounds of English and the trouble triggered off by them, Anwer (2007) states that some of the English vowels are tricky for the Punjabi speakers because they are not present in the sound system of Punjabi.

In a similar research on the English vowel phonemes and the problems caused by them for the learners with Pashto background, Khan(2009)suggests that Pakhtoons are unable to produce “ /ball/sound” and often replace it with /a:/... they also confuse /e/ and /i/sounds besides mispronouncing “/pot/sound”.

By observing the above discussions and findings of different studies, one finds that the complex nature of the English sound system becomes a big barrier on the way of foreign learners of it since they find it difficult to manage different phonemic configurations that the English language offers. Moreover, the distinct nature of English vowel sounds makes them difficult for foreign learners to articulate them properly in different lexical and phonological environments.

### **3 Research Design/Correlational Research**

Since the focus of this case study is on the investigation of the degree of correlation between the phonemic transcription of Pakistani learners of English and their verbal performance, it is a correlational research.

A numerical measure of strength in the linear relationship between any two variables is called the Pearson's Product Moment Correlation Co-efficient. 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 given in the following:

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

In the formula mentioned above, "r" is correlation co-efficient and "n" represents the total population, which is 375 in case of the present study. As regards "x" and "y", they denote variables to be studied in the research. The present study makes use of phonemic transcription and pronunciation. Sigma shown in the formula represents summation.

### 3.1 Population

The target population of the study was the Pakistani learners of English language, having obtained Higher Secondary School Certificate with the knowledge of the phonemic alphabet of English. The learners who form the accessible population were approximately 500 students studying at Diploma Level in the Department of English, National University of Modern Languages, Islamabad. These students belonged to different parts of the country and had joined NUML in order to improve their language skills.

### 3.2 Sampling

The researchers selected the whole population as their sample for the study. In other words, the sample of the researchers was identical with the accessible population. There were about 500 students enrolled in the Department and the researchers considered only those 375 male and female students who took both the tests. According to Boss (2006, p.146), "For correlation studies, a minimum of 30 participants should be tested" but the researchers went for a large sample to secure the issue of generalisibility.

### 3.3 Research tools

Keeping in mind the significance of validity and reliability, the researchers tried their best to gather the genuine data required for the present study. For that matter, help was taken from the exercises given in 'A Course in Phonetics' by Peter Ladefoged, 'English Pronunciation in use' by Mark Hancock, and 'Practical Phonetics and Phonology' by Beverley Collins and Inger M. Mees. Besides, guidance from language experts and a number of language teachers at the Department was

also sought.

Keeping in mind the issues of validity and reliability for collecting the accurate data, the researchers prepared the following study tools:

1-Written Test

2-Verbal Test

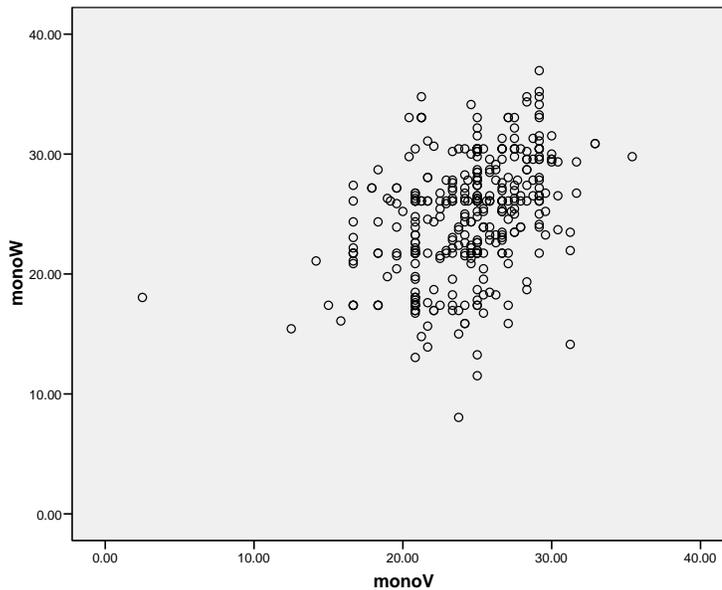
#### 4. Analysis of data

		Monophthongs Written	Monophthongs Verbal
Monophthongs Written	Pearson Correlation	1	.537(**)
	Sig. (2-tailed)		.000
	N	375	375
Monophthongs Verbal	Pearson Correlation	.537(**)	1
	Sig. (2-tailed)	.000	
	N	375	375

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

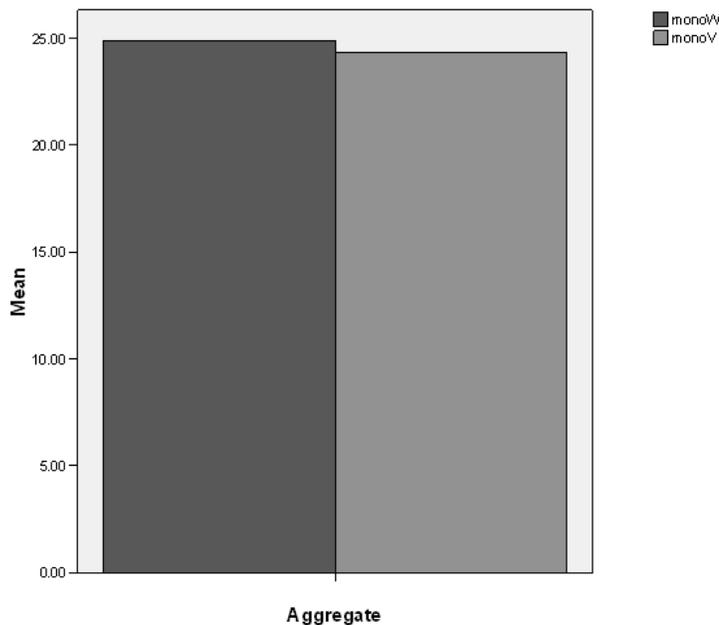
#### Table: Correlation between Written and Verbal Scores of the Sample in the area of English Monophthongs

Table shows correlation coefficient i.e.  $r = 0.537$  of the study sample (N 375) between written and verbal tests prepared in the area of English pure vowels or monophthongs.  $r = 0.537$  shows medium relationship, suggesting that it is neither very strong nor very weak. As shown in the table, correlation coefficient (value) was found statistically significant at  $p=0$ , i.e.  $p < 0.01$  which means there is 99% chance of relationship between the verbal and written performance in the area of English pure vowels/monophthongs.



**Plot: Scatterplot showing Correlation in English Monophthongs by the Study Sample**

Plot shows the relationship between the written and verbal performance in the area of English pure vowels/monophthongs. The position of dots shows that relation is medium. The vertical line of the plot shows the performance in the written test whereas the horizontal line shows the scores in the verbal test.



**Figure: Comparison between the Written and Verbal Performance in English Monophthongs by the Study Sample**

Figure shows the comparison between the written and verbal performance of the study sample (N 375) in the area of English monophthongs. The darker bar on the left side of the figure shows the performance of the sample in the written test whereas the bar on the right side shows the performance in the verbal test. The heights of the bars show that the performance of the sample in the written test is slightly high though they also suggest that the difference is not very big.

## 5 Findings

1. The study sample scored higher in the written test as compared with the verbal test.
2. As far as the first monophthong / i:/ is concerned, the members of the study sample did not face much problem in either of the tests.
3. The second monophthong / ɪ / did not pose much problem either in the tests.
4. / e / posed some problems for some of the subjects, especially with regard to its pronunciation. The analysis of the data showed that the subjects were not tricked by the articulatory nature of the sound but by the context itself in which it appeared at places.
5. The study sample did not seem to have much trouble in articulation of the so called sheep sound or ash. However, they changed the sound into / e / in certain contexts. For example, many of them pronounced the word 'fax' as / feks /.
6. / a:/ is low back and is very commonly found in all Pakistani languages and naturally did not pose any problem for the study sample.
7. Vowel No. 6 / ɔ:/ seems to be the most difficult sound for the Pakistani learners of English. The study sample did it wrongly in both the tests and this is the sound where they scored lowest.
8. Vowel No. 7 / ɒ / also affected learners' performance in both the tests but it was not as difficult as its longer counterpart.
9. The long monophthong No. 8 / u:/ seemed to be an easy sound for the study sample and their performance in both the tests was equally good.
10. Vowel No. 9 / ʊ / was not difficult to pronounce either though the members of the study sample committed some mistakes in the written test.
11. What appeared to be one of the most difficult sounds was / ʌ /. It was hardly pronounced in its correct manner by any member of the sample. Most of the sample members confused its articulation with / ə /, called schwa or banana vowel.
12. The long monophthong No. 11 / ɜ:/, also posed a great deal of difficulty for the learners. Most members of the sample changed it into 'schwa' or a mixture of 'schwa' and the 'hut' / ʌ / sound

though some of them did well in it. The sample performed far better in the written test for this sound.

13. The last monophthong called schwa or neutral vowel was not a problematic sound for most members of the study sample and they did equally well in both the tests.

### **5.1 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. The performance by the members of the study sample shows that Pakistani learners of English are not perplexed by most English monophthongs though some of them are really hard in either articulation or transcription or both. The analysis of the data validates the findings of Hassan (2004), Anwer (2007) and Hashmi (2011).

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

1. English vowel sounds should be dealt with more carefully since they lack precision in terms of place and manner of articulation.

2. More attention needs to be paid to the articulatory aspect of vowel sounds since slight configuration of the articulators, especially the tongue and the lips may entirely change the getup of a sound by pushing it into the domain of some other sound. This leads to semantic confusion or semantic loss. For example, confusing / e / and / æ / in 'bed' and 'bad' results in something totally different semantically.

3. Like the tongue heights, lip rounding plays important role in the production as well as modification of different vowel sounds. Therefore, teachers of phonology should make their students aware of the difference that different lip positions cause to these sounds. For example, vowel No. 6 / ɔ: / which is a rounded sound may drastically change phonologically if lip rounding does not take place. As a result, this will change into / a: / sound which is an entirely different sound.

4. Vowels No.10,11 and 12 / ʌ /, / ɜ:/ and / ə / are three English monophthongs which create a great deal of trouble for Pakistani learners of English in terms of articulation due to their close proximity inside the vowel tract. Since they are situated very closely to each other inside the vocal cavity, they may enter the area of each other if articulated casually or wrongly.

5. 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.

### 5.3 Conclusion

The detailed analysis of the data shows that English monophthongs, both long and short, are not very difficult to deal with in terms of articulation and transcription. However, there are a few sounds which prove to be real stumbling block for Pakistani learners of English due to their tricky articulatory nature. These sounds can be taught in a better way either with the help of contrastive analysis technique or by a great deal of direct exposure to them. The performance put up by the study sample in both the tests suggests that English monophthongs bear a medium relation in terms of phonemic transcription and articulation by the Pakistani learners.

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