

RESPONSES TO VOWEL SOUNDS OF ENGLISH: A CASE STUDY ON SELECT UNDERGRADUATE STUDENTS OF ENGINEERING

*Dr. N.V.S.N. Lakshmi, Assistant Professor of English, Department of H&SS
Jawaharlal Nehru Technological University Hyderabad*

Abstract:

This article aims at looking into the written responses of the select students to the vowel sounds of English. It describes the data collected from students of engineering and explores the possible influential factors in understanding the vowel sounds. It also attempts to correlate the responses with factors like gender and attendance of the students. Finally, this work concludes with a note of other key factors such as the demographic details, motivational factors or any other learning styles that affect the performance of the students in the process of understanding how to neutralise mother tongue interference in English.

Introduction

In view of the growing importance of spoken English in India due to globalisation and digitalisation in various fields including higher education, students of engineering and technology need to be industry-ready. One of the important factors in spoken English is neutralising the mother tongue interference rather than the influence alone. In this context, it was found relevant to conduct a study on the growing awareness of their pronunciation. The work in the present study is aimed at looking into the responses of select students of engineering to vowel sounds, which were commonly mispronounced. All the students had a minimum of six hours and a maximum of fourteen hours of exposure to vowel sounds in ear training and practice and they are aware of the phonetic symbols. Vowel is the nucleus of a syllable. Simple words were taken to study the responses of students to vowel sounds. This ensures that they are familiar with the words and the focus is only the vowel sounds.

A bird's eye view of earlier work

Research on phonetic studies was carried out extensively in the areas such as Indian English (Bansal, 2013), Asian English (Suneetha, 2007), software engineers (Kumari,S.B, 2008), Dravidian English (Hetcherla, 2014), pulpit English (Ganta, 2009; Suvatha, 1989); spoken English of engineering students (Lakshmi, 2004) and transliteration (Prabhavathi Devi, 1995). Gemination, vowel length, vocalic ending of words, transliteration of English words in Telugu are some of the features which lead to fossilisation of speech habits leading to speaking English with the mother tongue interference.

Aim and Objectives of the study

The aim of the present study is to analyse the students' responses to vowel sounds in English. The study also attempted to check if the factors like attendance, gender affected the performance of the students. The findings of this study are limited to the data collected from 35 students of one of the constituent colleges of engineering affiliated to Jawaharlal Nehru Technological University Hyderabad. S1 refers to student with a serial number 1.

Details of the respondents

A batch of 35 students, of which 18 are female and 17 are male, who are studying first year B.Tech from civil and metallurgical engineering attempted the test. Their L1 is Telugu and they are studying B.Tech first year in Hyderabad. In this article, the terms students and respondents are used

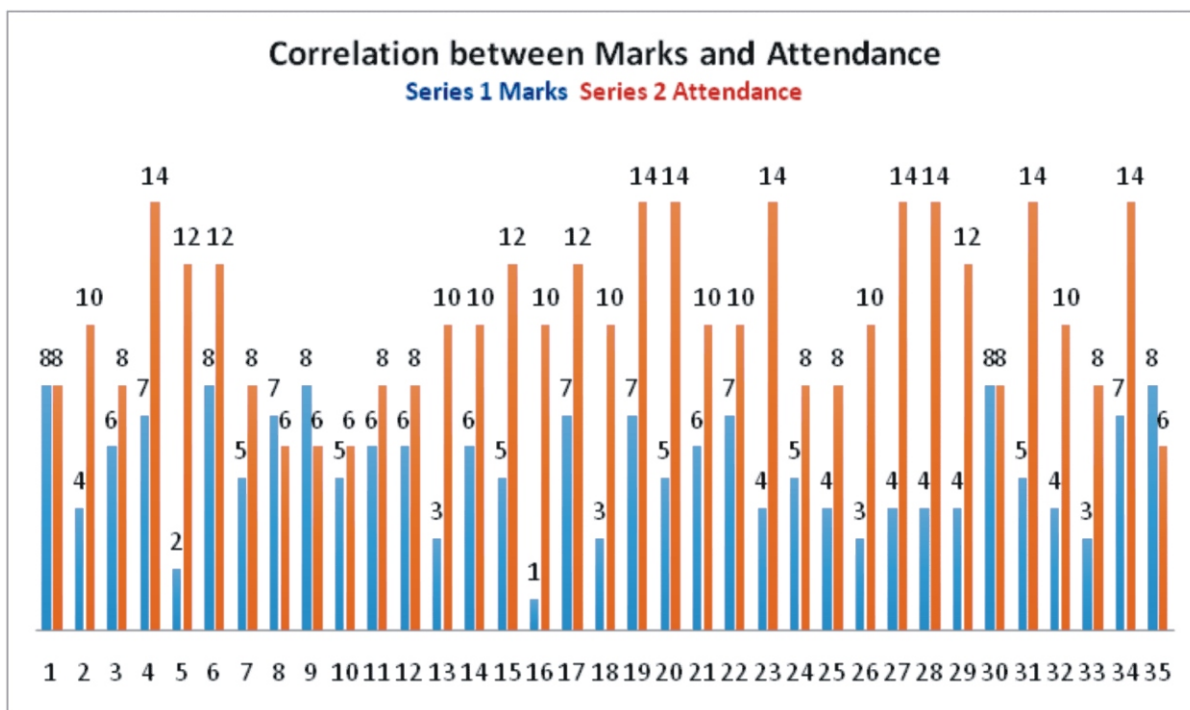
interchangeably.

Data collection

A written test (Appendix 1.1 questions) was administered to collect data from respondents. The test included some of the common errors in pronunciation like elongation of word final vowel, substituting one sound for another and general understanding of the number of speech sounds in English. The test included multiple choice questions on vowel sounds. Each question had four options, ensuring that there is only correct answer, a distracter and one option which was not so relevant or an irrelevant option. *In addition, there was one question with matching the word with their sound.* A conscious attempt was made to ensure that the students did not have to transcribe the words phonetically while attempting the test. Except two of the respondents, all the other 33 students have attended at least eight hours of training. During the classes, they got familiar with the phonetic symbols and they had practice sessions on listening to vowel sounds of English. Last column of the table in annexure indicates the details of number of classes attended by students.

Data Analysis

An overall analysis of the responses to ten questions (Appendix -1.1 Questions) on vowel sounds is discussed in this section. A quick look at the table (Appendix 1.2) of indicates that the average score of marks by girls is marginally higher (5.5 out of 10) than the boys (5 out of 10). The following graph on correlation between marks scored by the students and the attendance indicates that a fixed pattern in the given data was not established correlating attendance with marks, in this particular case. A larger sample is required to validate the data regarding the correlation.



If the attendance column in the table is looked at carefully, seven students attended all classes. Five students attended 12, nine students attended ten classes and another nine students attended eight out of 14. It is observed that some of the students who had attended more than eight classes out of 14 also scored only 3 or 4 out of 10 marks. On the contrary, s8, s9, s35 who attended only six out of 14 scored 7, 8 and 8 marks out of 10 respectively. It is interesting to note that this factor of correlation between attendance vs. any

other influential demographical details or learning styles and score needs to be carried out by considering a larger sample.

Details of responses to each question

In this section, responses of 35 students for each of the ten questions on vowel sounds in English are discussed in detail.

Q no 1-(23 of 35)

All the incorrect 12 responses marked option D i.e., There are 5 pure vowels in English. This indicates that the students have not understood the term 'pure vowels' that it refers to the vowel sounds but not the vowel letters.

Q no 2 (6 of 35)

This question deals with the occurrence of vowel /ə/ in a word. Only six out of 35 have got the answer right. 13 of them opted for option A i.e., it occurs in an accented syllable. This indicates that they have not understood the nature of the weakest vowel schwa. Eight of them have marked tonic syllable whereas another eight have indicated that it occurs in strong forms of grammatical words. This indicates that the students have not understood the concept of 'syllable' and 'strong forms and weak forms'.

Q no. 3 (27 of 35)

27 have identified the last diphthong /ʊə/. The other three incorrect options /ɑə, æə, əɪ/ do not belong to meaningful diphthongs at all.

Q no.4 (13 of 35)

13 of 35 have responded correctly to this question on vowel /ɑ:/ in the word 'clerk'. It is interesting to note that 11 of 22 incorrect responses have selected /ə:/ which is a pan Indian (Telugu) feature.

Q no.5 (18 of 35)

The question focussed on the word that has /əʊ/ i.e., 'stove' for which 18 of the 35 students answered correctly. 11 of them answered that /əʊ/ was found in the word 'bow' (v.) whereas five of them have responded to the word 'allow', which was a distracter. The question has two challenges in the options as well, i.e., identifying the difference between the homonyms 'bow' as a noun and as a verb. 'bow' as a noun has /əʊ/, but, on the contrary 'bow' as a verb has an /aʊ/. 'allow' /ə'laʊ/ could be a distracter too, which was produced with an [o:] for /əʊ/ in Indian English.

This question poses a challenge at two levels, even in the distracters among the incorrect options. The first one is identifying the grammatical category and visualising the pronunciation distinguishing a noun from a verb. The second one is to differentiate the diphthongs /əʊ/ and /aʊ/, which was the test item.

Q no.6 (21 of 35)

The question deals with the elongation of short vowel /ɪ/, which is one of the common errors in pronunciation. Identifying the word final /ɪ/ in words 'city', 'honey', 'money' and 'pretty' is the focus or central idea of this particular question. 21 of 35 students answered the question correctly as /ɪ/ whereas 10 of the remaining 14 incorrect responses were marked it as /i:/. Three of them marked with a semi-vowel /j/ and totally irrelevant option. It is interesting to note that their response could probably be the semi-vowel /j/ because all the words ended with the letter 'y'. Letter 'y' is usually transcribed as /j/ and they might not have looked at the question keenly which focussed on word final vowel but not the letter at all.

Coming to the elongation of the word final /ɪ/, transliteration of these words in Telugu, signboards, media, particularly films could be one of the reasons for the students to get the sound incorrect.

Q no. 7 (14 of 35)

This question deals with identifying the words that have same pronunciation or homophonic element in the given pairs of words such as 'blue, blew'; 'dear, deer'; 'male, mail'. 14 out of 35 identified the correct option that 'each pair has same pronunciation and they are homophones in English.' The second part of this option is given with an intention that it could serve as a clue so that they can confidently answer the question. 17 of

the remaining 21 incorrect responded as option d i.e., 'Each of them is a minimal pair.' Four of them responded that all the six words have a common diphthong. With a reasonable conjecture one may arrive at a conclusion that the incorrect responses indicate that the students might have confused between homophones and minimal pairs. The concept of minimal pairs along with homophonicity as a test item could have been new to the students. Hence, 21 of the responses were incorrect.

It is also interesting to note that none of them marked that these pairs of words are homonyms. With this one could possibly be relieved that they are not confused homophone for homonyms, at least, in this question. Minimal pair is a newly introduced concept for them i.e., replacing one sound for another in a word brings a change in the meaning. Understanding of this concept is different and slightly more challenging when it appears as a distracter or a pitfall in the options given.

On the other hand, if we look at the pan Indian features of errors in pronunciation or mother tongue influence and pronouncing a word by the spelling could also lead to incorrect responses. For e.g., the word 'blew' as /blju:/ instead of /blu:/ and 'grew', 'crew', 'flew' (* but not 'flu') tend to be pronounced with a semi-vowel /j/, because of the misleading presence of vowel letter 'e' with 'w'.

Words with 'ee' like 'deer, peer, sheer' tend to be pronounced with a long monophthong /i:/ instead of the diphthong / I ə/ because of the misleading sequence of letters in spelling. Similarly, words like 'sure', 'cure', 'pure', 'tour' tend to be pronounced with [u:r] instead of the diphthong / ʊ ə/. On the contrary, words with 'ea' in spelling such as 'clear, fear, near, dear' (*'pear')—tend to be pronounced correctly with the diphthong / I ə/.

Q no. 8, 9 and 10 included matching of the pairs of words with their equivalent symbols. Pairs of words like 'later, latter' and 'get, gate' have a relatively higher conformity with the correct responses 27 students marked the pair /e I /, /æ/ and 28 students mapped the sounds /e/, e I / with 'get, gate'. 'peer, pair' with / I ə/, /eə/ were marked correctly by only eight students out of 35 leaving it as a question with the lowest conformity to the correct response. 24 of the 35 respondents marked 'peer' with an /i:/ instead of the diphthong. This particular distracter is actually a common error among pan Indian speakers because of spelling pronunciation. For the two pairs of words, there is no clear distracter in the options given.

Conclusion

The data in present study indicates that students require more numbers related to ear training and practising the production of these vowel sounds. It is also indicative that apart from the attendance, other details such as medium of instruction, regional influences such as urban and rural background, their exposure to English outside the classroom, their own levels of motivation to do better in spoken English, awareness of the testing procedure and the challenges involved at various levels in a heterogeneous group of students would have influenced their responses to vowel sounds. A detailed study can be conducted extensively using all the speech sounds of English using a larger sample of students of engineering and technology.

Annexure-1

1. Questions

Choose the correct alternative from the options given below and mark it in the brackets given against the question.

1. How many pure vowels are there in English? ()
 a. 12 b.8 c. 24 d. 5
2. Where does the vowel /ə/ occur in a word? ()
 a. Accented syllable b. Unaccented syllable
 b. Tonic syllable d. Strong forms of grammatical words

3. In addition to /eɪ/, aɪ/, əɪ/; aʊ, əʊ/; I ə, eə, _____/, which of the following is the last diphthong in English? ()
- a. /aʊ/ b. /aɪ/ c. /æə/ d. /əɪ/
4. Which of the following vowel sounds is present in the word 'clerk'? ()
- a. /ɑ:/ b. /e/ c. /ɒ/ d. /ə:/
5. Which of the following words has /əʊ/? ()
- a. Voice b. Allow c. Bow (verb) d. Stove
6. How is the word final vowel pronounced in the words 'city', 'honey', 'money' and 'pretty'? ()
- a. /i:/ b. /ɪ/ c. /j/ d. /E/
7. What is common in the following set of words: 'blue, blew'; 'dear, deer'; 'male, mail'? ()
- a. Each pair has same pronunciation and they are homophones in English.
b. All the six words have a common diphthong.
c. They are homonyms. d. Each of them is a minimal pair.
- Match the following minimal pairs with their phonetic symbols.**
8. Later, latter () a. /e/, eɪ/
9. Get, gate () b. /ɪ ə/, /eə/
10. Peer, pair () c. /eɪ/, /æ/
d. /i:/, /eə/

1. Responses of the students for questions													
Sl. No	Gender ↓	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	10M	Total classes 14
Correct option»»»»		A	B	A	A	D	B	A	C	A	B	Total	Attended
1.	F	A	B	A	D	D	B	A	C	A	D	8	8
2.	M	A	C	D	A	A	A	D	C	A	D	4	10
3.	F	A	C	A	A	D	A	A	D	A	C	6	8
4.	M	A	A	A	D	D	B	A	C	A	D	7	14
5.	F	A	A	B	D	D	A	D	A	C	D	2	12
6.	F	A	D	A	A	D	B	A	C	A	D	8	12
7.	M	A	C	A	A	D	A	D	C	D	A	5	8
8.	F	A	B	A	D	D	B	D	C	A	D	7	6
9.	M	A	B	A	A	C	A	A	C	A	B	8	6
10.	M	A	A	A	A	D	A	D	C	D	A	5	6
11.	M	A	C	A	A	C	C	D	C	A	D	6	8
12.	M	A	D	A	C	D	B	D	C	A	D	6	8
13.	M	D	C	D	D	C	B	D	C	A	D	3	10
14.	F	A	D	A	C	D	B	D	C	A	D	6	10
15.	F	A	D	A	B	C	A	A	C	A	D	5	12
16.	M	D	D	C	D	D	A	D	B	C	D	1	10
17.	F	A	A	B	A	D	B	A	C	A	D	7	12
18.	F	D	D	A	C	D	B	D	A	B	D	3	10
19.	M	A	C	A	D	C	B	A	C	A	B	7	14
20.	F	D	A	A	A	B	B	D	C	A	D	5	14
21.	F	A	A	A	C	C	B	D	C	A	B	6	10
22.	M	A	D	A	D	C	B	A	C	A	B	7	10
23.	F	D	A	A	C	B	A	A	C	A	D	4	14
24.	F	A	D	A	C	D	A	D	C	A	D	5	8
25.	M	D	A	D	C	B	B	A	C	A	D	4	8
26.	M	D	A	D	B	B	B	D	C	A	D	3	10
27.	M	D	A	A	B	C	C	B	C	A	B	4	14
28.	M	D	C	A	A	D	B	D	A	C	D	4	14
29.	F	D	C	A	D	D	B	A	A	C	D	4	12
30.	F	A	B	A	D	C	B	A	C	A	B	8	8
31.	F	A	B	A	D	C	C	D	C	A	D	5	14
32.	F	D	A	C	A	D	B	B	B	A	D	4	10
33.	M	D	A	C	B	D	B	B	B	A	D	3	8
34.	F	A	A	A	A	B	B	D	C	A	B	7	14
35.	M	A	B	A	A	C	A	A	C	A	B	8	6
F-18 M-17		23	6	27	13	18	21	14	27	28	8	185	382
Score by girls-100 Average score of girls $100/18= 5.5$ Score by boys-85 Average score of boys $85/17=5$													

References:

1. Bansal, R.K. and Harrison, J.B. 2013. Spoken English. Orient Blackswan Pvt. Ltd: Hyderabad
2. Ganta, Kiran Babu. 2009. Listeners' Responses to Pulpit English - A Phonetic Study. M.Phil.1274/RD
3. Hetcherla, Narendra Kumar. 2009. Knowledge of English Phonetics and the English Speaking Abilities of English Lecturers in A.P. Unpublished M.Phil.1130/RD
4. Kumari, Shirisha B.2008. A Phonetic Study of English Spoken by Software Engineers. Unpublished M.Phil .1039/RD
5. Lakshmi, N.V.S.N.2004. A Phonetic Study of the English Spoken by Students of Engineering and Technology. Unpublished Ph.D. thesis. 873/RD
6. Prabhavathi Devi, M. 1995. Transliteration of English Words into Telugu and the Problems of Pronunciation. Unpublished Ph.D. thesis. 585/RD
7. Suneetha, Didla Grace.2007.Intelligibility of Asian English - A Phonetic Study. Unpublished Ph.D Thesis submitted to EFL University 1046/RD
8. Suvatha, Kezia. 1989. Pulpit English: A Study of Certain Phonetic Features. Unpublished M.Litt. 410/RD