

The Effects of Formal Instruction on the Acquisition of English Short Vowels

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Abstract: *Indonesian and English vowels reveal different phonetic classification and symbols in the International Phonetic Alphabet (IPA). English has seven short vowels: ɪ, e, æ, ʌ, ʊ, and ʊ. The difference in phonetic classification and symbol overlooks subsegmental difference in aspiration that exists between the two. In English there are many sounds symbolized by short vowels: ɪ, e, æ, ʌ, ʊ, and ʊ which are absent in Indonesian. These sounds make difficulties to Indonesian speakers of English. This study therefore aims to explore whether formal instruction improve the acquisition of English short vowels by Indonesian learners of English. The population of this study is students of English Literature Study Program Faculty of Languages and Literature Universitas Negeri Makassar Indonesia. The study reveals that formal instruction improved the acquisition of English short vowels by Indonesian learners of English and the majority of the students transcribed the short vowels as long vowels, e.g., ə becomes e: as in docter; ɪ becomes i as in sit.*

Keywords: Formal instruction, short vowels, English, Indonesian learners of English

1. Introduction

In Indonesia, English is taught as a foreign language and learnt at secondary schools and universities as a mandatory subject. In most countries in ASEAN, English forms a compulsory part of the core of the curriculum in both primary and secondary schools (Waterworth, 2016).

English has many differences with Indonesian in terms of its pronunciation and spelling. As English learners, Indonesian speakers of English meet difficulties in pronouncing English words. Weda (1998) argues that as a foreign language, English presents great difficulties with regard to its pronunciation. According to Weda, the pronunciation of English poses problems of different kind from those which we face when we learn our first language (mother tongue). Weda (2017) emphasizes that the second (L2) or Foreign Language (FL) learners sometimes meet difficulties in pronouncing new words in an L2 or FL. Reeder in Weda (2017) said that in adult language learning, the attempt to master the phonological subtleties of another language can become the source of great difficulty for teacher and student alike when the reality of a learner's target language production does not meet established goals (Reeder, 1997). Accordingly, Moedjito (2008) says that in Indonesian context, English pronunciation has rather been neglected, for example, the teaching of English pronunciation tends to have an insufficient portion. As a result, Indonesian learners tend to make a considerable number of mistakes in pronunciation when they try to speak in English. Munro in Bui (2016) argues that the intelligibility in pronunciation was often hindered because of the nonnative speakers' mispronunciation at the segmental level.

Cook (1992) argues that more crucially the learning of sounds is not just a matter of mastering the phonemes of the second language ashort with their predictable variants at one level it is learning the rule of pronunciation in ordinary communication for the language such as those for forming syllables; at another level it is learning precise control over

Voice Onset Time. While the phonemes of the language are indeed important, pronunciation difficulties are often not related to specific phonemes so much as to more general principles in the case of using English as L2, voicing for German students, syllable structure for Arabic students, voice onset time for Spanish students, and so on. Cook (1992) emphasizes that language teaching should then pay more attention to such general features of pronunciation rather than the phonemes.

The present study analyzes the acquisition of English short vowels made by Indonesian speakers of English. The study focuses on the effect of formal instruction on the acquisition of English short vowels. The specific research questions addressed in this study were: i) Does formal instruction have any effect on the acquisition of English short vowels, and ii) Which short vowels are more difficult recognized by Indonesian learners of English?

2. Review of Related Literature

2.1 Previous Studies

Mora and Fullana (2007) in their study on production and perception of English /i:/-/ɪ/ and /æ/-/ʌ/ in a formal setting showed that neither starting age nor experience had a significant effect on how accurately participants perceived and produced the two vowel contrasts, although a late starting age advantage was observed as suggested by previous research conducted in formal instruction settings. Wells and Colson (1971) emphasize that by systematic practice in listening to sounds can greatly improve one's ability to recognize and distinguish different speech sounds. Such practice is known as EAR-TRAINING. It is best done by taking dictation from someone familiar with the phonetic material to be studied.

Elliot (1995) argues that the multimodal methodology resulted in significant improvement of target language pronunciation for the subjects in the experimental group.

The article ends with a classroom model of pronunciation instruction designed to enable teachers to incorporate this multimodal method into most second language (L2) curricula.

Elliot (1997) in his research findings suggests that teaching pronunciation to adults is beneficial in the acquisition of Spanish pronunciation as evidenced by the experimental group subjects' overall improvement in pronunciation over the course of the semester. Subject pronunciation improved significantly for the word reading, the sentence repetition, and the word repetition exercise.

Henderson and Templeton (1986) argue that if teachers consider spelling instruction important and teach spelling with understanding and thoroughness, they can teach reading and writing with far greater ease and higher expectation for student learning. They add that we believe that this is the true relationship of spelling to literacy for English speakers.

Weda and Sakti, A. E. F. (2017) report in their study that the students have pronunciation improvement in English fricative consonants after they followed the phonology subject using formal instruction.

2.2 English Short Vowels

Roach (1987) argues that English has a large number of vowel sounds; those are short vowels and short vowels, and the first ones to be examined here are short vowels. Roach adds that the symbols for those short vowels are: ɪ, e, æ, ʌ, ɒ, and ʊ.

The following examples are taken from Roach (1987):

- ɪ (example words: 'bit,' 'pin,' and 'fish')
- e (example words: 'bet,' 'men,' and 'yes')
- æ (example words: 'bat,' 'man,' and 'gas,')
- ʌ (example words: 'but,' 'some,' and 'rush')
- ɒ (example words: 'pot,' 'gone,' and 'cross')
- ʊ (example words: 'put,' 'pull,' and 'push')

Another short vowel which is called **schwa** is central vowel ə (example words: 'about,' 'oppose,' and 'perhaps'). Additionally, look at the examples below as proposed by Wells and Colson (1971):

- ɪ as in bead /bɪd/
- ɪ as in bid /bɪd/
- ɛ as in bed /bɛd/
- æ as in bad /bæd/
- ɑ as in card /kɑd/
- ɒ as in cod /kɒd/
- ɔ as in caught, court /kɔt/
- ʊ as in good /gʊd/
- u as in food /fʊd/

- ʌ as in bud /bʌd/
- ɜ as in bird /bɜd/
- ə as in announcer /ənʌnsə/,
laboured /leɪbəd/,
vanilla /vənɪlə/

In other the learners of English can pronounce sounds well in maintaining mutually communication to others, either the native speakers of English or non-native speakers of English, they need to practice the sounds, especially short vowels in a variety of multi modal activities. Those multi modal activities are asking students to repeat the sounds, asking students to provide some examples of short vowels in words and their transcriptions, asking students to present the short vowels exist in some words in the classroom discussion, etc.

3. Method

3.1 Subjects

The data on which this research is based are from English phonetic transcription. A total of 65 students at the university level participated in this study. The subjects ranging from 18 – 21 years old and they were in their first semester at the university. The subjects were attended an English phonology subject in academic year 2016. The course was 14 meetings in which the subjects were taught the theory of phonology and followed by practice, including pronunciation practice and phonetic transcription.

3.2 Instruments

The subjects were asked to write down the phonetic transcription of English vowels in pretest and posttest. Those phonetic symbols were as follows:

- /ɪ/ sit, in
- /e/ men, any
- /æ/ cat, apple
- /ʌ/ cut, up
- /ɒ/ got, on
- /ʊ/ should, good
- /ə/ arrive, doctor, picture

4. Results and Discussion

The performance of the students in the pretest and posttest was shown that the mean score, standard deviation, and percentage of students' correct pronunciation on the English short vowels. The means, standard deviation, skewness, kurtosis, minimum, maximum, and range of short vowels for each group, both at pretest and posttest, were calculated and stated in table 1.

Table 1: Mean and standard deviation of pretest and posttest

Code	Description	M	SD	Skewness	Kurtosis	Minimum	Maximum	Range
Pretest	Acquisition of English short vowels.	2.0303	1.41388	2.235	8.953	.00	9.00	9.00
Posttest	Acquisition of English short vowels.	5.4091	2.58384	.436	-.373	1.00	12.00	12.00

As revealed in table 2 that there were 6 or 9.1% of the subjects did not give correct answer (correct transcription on the short English vowels in pretest. There were 12 or 18.2% of the subjects gave 1 correct transcription on the lists of

short English vowels. 37 or 56.1% of the subjects gave 2 correct transcription on the lists of short English vowel tests in pretest. 4 or 6.1% of the subjects gave 3 correct transcription on the short English vowel tests. 4 or 6.1% of

the students gave 4 correct transcription on the short English vowel test. 1 of the students or 1.5% of the subjects gave 5 correct response, 6 correct response, and 9 correct response on the transcription of short English vowel test respectively.

Table 2: Frequency and percentage of students' answers in pretest

Pretest					
Students' answers	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	.00	6	9.1	9.1	9.1
	1.00	12	18.2	18.2	27.3
	2.00	37	56.1	56.1	83.3
	3.00	4	6.1	6.1	89.4
	4.00	4	6.1	6.1	95.5
	5.00	1	1.5	1.5	97.0
	6.00	1	1.5	1.5	98.5
	9.00	1	1.5	1.5	100.0
	Total	66	100.0	100.0	

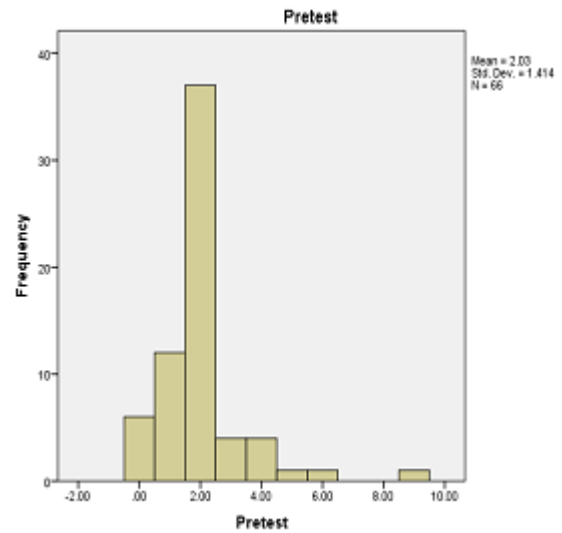


Chart 1: Histogram of students' answers in pretest

Table 3: Frequency and percentage of students' answers in posttest

Posttest					
Students' answers	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	1.00	2	3.0	3.0	3.0
	2.00	7	10.6	10.6	13.6
	3.00	9	13.6	13.6	27.3
	4.00	8	12.1	12.1	39.4
	5.00	9	13.6	13.6	53.0
	6.00	11	16.7	16.7	69.7
	7.00	6	9.1	9.1	78.8
	8.00	6	9.1	9.1	87.9
	9.00	2	3.0	3.0	90.9
	10.00	4	6.1	6.1	97.0
	11.00	1	1.5	1.5	98.5
	12.00	1	1.5	1.5	100.0
	Total	66	100.0	100.0	

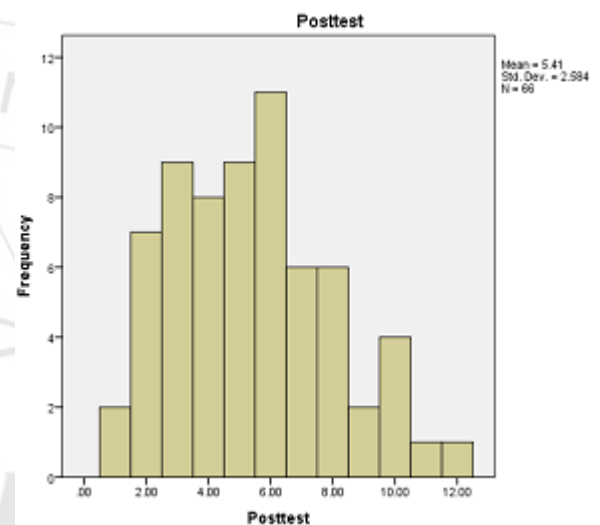


Chart 2: Histogram of students' answers in posttest

Chart 1 shows the histogram of the students' response towards the acquisition of English short vowels. As illustrated in the chart 1 that the highest frequency of students' response was on 2 correct transcription with 37 or 56.1% of the subjects. In pretest, the majority of subjects could not distinguish between short vowels and short vowels. They transcribed the short vowels as short vowels, e.g., ə becomes e: as in doctor; i becomes i as in sit. Chart 2 reveals that in the posttest, the highest frequency and percentage of students' response was on 6 correct transcription with 11 or 16.7% of the students followed by 3 and 5 correct transcription with 9 or 13.6% of the students.

Table 4 lists the descriptive statistics for subjects of the pronunciation practice in pretest and posttest ashort with differential scores indicating by mean, SD, skewness, kurtosis, and range. Mean scores for both pretest and posttest were different significantly. On the pretest, the mean score was 11.666 and the posttest was 17.007. An independent samples *t* test indicated that the students achievement on the acquisition of English short vowels were significantly different.

The results of inferential statistics as stated in tabel 4 indicate that the formal instruction exerts a significant effect on the improvement of students' acquisition of English short vowels transcription in posttest in which the Sig. (2-tailed) was .000 and the mean difference was 2.03030 in pretest and 5.40909 in posttest.

Table 4

	One-Sample Test					
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pretest	11.666	65	.000	2.03030	1.6827	2.3779
Posttest	17.007	65	.000	5.40909	4.7739	6.0443

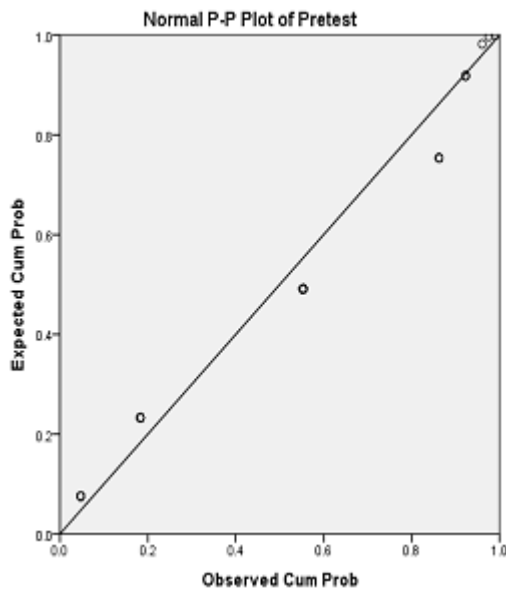


Chart 3: Plot of students' answers in pretest

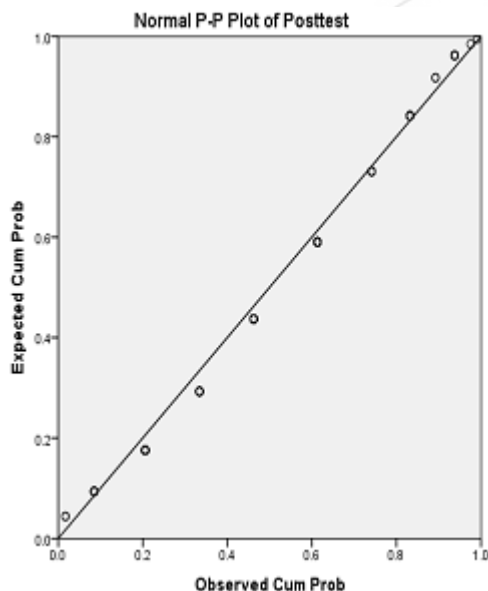


Chart 4: Plot of students' answers in posttest

As seen in the scatter diagram in chart 3, all the points in the scatter diagram were far from the straight line. This means that the students' transcription on lists of English short vowels in pretest was low effect of formal instruction on the students' English short vowels. Therefore, as illustrated in chart 4 that all the points in the scatter diagram were close to the straight line. This scatter diagram of students' transcription on lists of English short vowels in posttest illustrates the strong positive effect of formal instruction on the acquisition of students' English short vowels.

5. Conclusion

There are two major findings of this present study. Firstly, the formal instruction relates significantly to the improvement of students' acquisition of English short vowels. The second finding is that the majority of the students transcribed the short vowels as long vowels, e.g., ə becomes e: as in doctor; ɪ becomes i as in sit.

Conspicuously, the Indonesian learners' problems in pronouncing short vowels: ɪ, e, æ, ʌ, ʊ, and ʊ need attention from the teachers and language practitioners, especially in countries where English becomes compulsory subject at schools and universities and taught as a Foreign Language (FL) or Second Language (L2).

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