An analysis of factors influencing student’s problem in pronouncing long and short vowels

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Abstract: The purpose of this research was to find out the students’ ability in pronouncing long and short English vowels and to find out what is the factor causing the problems in pronouncing short and long English vowels. This research was done through descriptive research, the sample was chosen by purposive sampling. There were 6 classes as population and chosen 5 students in each class as a sample to represent all students in every class. The tool of data collecting of this research was minimal pair test as a measurement test and interview. Based on the research finding, it was found that only 2 students that got score with the category “good” (60) and “excellent” (80) from the total of 30 students with the mean score 40.89 that categorized into "fair". Mispronounced in short vowels were 247 and mispronounced in long vowels were 283. From the result of Interview, it was found that the student had problems in pronouncing the vowel in English that were caused by several factors, including learning and social aspect. Based on the result, it can be concluded that students had the pronunciation ability categorized into "fair" and also some problems in terms of the pronunciation of long and short vowels influenced by problems during the learning process and social aspects.

Keywords: Descriptive research, Pronunciation, vowels,

Pronunciation of English words is very important to master because the meaning of the word which is spoken has its own meaning. Therefore, pronunciation in English must be mastered in order to avoid misunderstandings in communication. English pronunciation is not the main focus, especially in Indonesia. Moedjito (2008:130) stated that pronunciation has not received enough attention in English learning in Indonesia. Because such a situation, many students who have problems when they pronounce words in English.

In learning process, students have found some problems in learning pronunciation. One of the problems in pronunciation which has become a dilemma for foreign language learners is the learners confused about sounds production. Hinofotis and Baily in Reza
(2011:74) notes that up to a certain proficiency standard, the fault which most severely impairs the communication process in EFL/ESL learners is pronunciation, not vocabulary or grammar.

During the process of English learning, in pronouncing words students can find problems in their pronunciation. The problems can be on the differences between the spelling and the pronunciation of the words. One of problems is when students want to say words in English as "she" [ʃi:] and "thin" [θɪn], they tend to say [sI] and [tIn]. Some of the problems that may arise in the pronunciation as sound [u] as in "full", compared to the sound [u] as in "fool", or voice [I] as the "hit" and [i:] as in "heat". It is clear that pronunciation problems faced by foreign language learners are caused by differences were found between students’ language and the target language.

In the International Phonetics Alphabet or IPA (Odden, 2005, p.39) English has twenty eight vowels and fifty eight consonants. Vowel is divided into monophthongs or pure vowels and diphthongs. Among some pure vowels are in English, there are short vowels such as [I], [e], [æ], [ʌ], [o], [u] and long vowels such as [iː], [æː], [ɑː], [ʊ] (Roach, 2000, p. 14). Indonesian students in general would pronounce short and long vowels with no difference because in Bahasa Indonesia has only vocals without distinction of long and short. For the example word bit and beat with the first [bɪt] and the second one [biːt]. They consider the sounds of both of them are similar in pronunciation [z] as [bɪt].

This problem arises because in studying a foreign or second language, there are influences of their first language to a second language they are learning. In this case the researcher assumes that it also occur in pronunciation. Indonesian students will generalize English vowels in Indonesian vowels which only has short vowel. To know students’ pronunciation in English vowel sound, the researcher conducted this research with focus on short and long English vowels. The way to get the data is by using minimal pairs test and interview. According to Odden (2005, p. 335) “Minimal pairs is a pair of distinct words differing solely in the choice of a single segment”. In the other words, minimal pairs are a pair of words that different, but almost identical in pronunciation, for example the words between full [fʊl] and fool [fuːl].

Next is short vowels which made into sentences different from one another. Furthermore the students were asked to read sentences aloud and the researcher recorded the students’ voice. Problems taken based on the experience of the researcher in the field when the researcher conducted teaching practice at the school. There were some students could not pronounce words in English properly and correctly yet when they read the narrative text, there were some words that roughly the same pronunciation but students pronounce it in the
same way. This occurred due to some factors that affect second language learning such as English. One of them is the influence of the first language supports its problems occur in second language learning.

So the researcher can see the problems of students in terms of pronunciation by minimal pairs that had been done by students. In the end, the results of this research are expected to be useful as an input, and an indicator for the consideration of teachers and education department as a facilitator and motivator of education to further that give special attention to the pronunciation of the students in teaching and learning process.

Discussing about pronunciation, the researcher should discuss about phonetics and phonology too, as the study that will be discussed in the pronunciation. Phonetics and phonology include the pronunciation field. Phonetics is about the sounds of language whereas Phonology is the language sound system. In other words it can be said Phonetics is a descriptive tool that is needed to study the phonological aspects of language. So phonetics and phonology has a very close relationship.

Phonetics is the systematic study about the classification of the sounds made in spoken utterance. Phonetics is concerned with how sounds are produced, transmitted and perceived. It is also relates to the acceptance of hearing someone in listening to the sounds. Hamann (2005:3) said that two more reasons to learn about phonetics are that the study of the phonetics of a foreign language gives us a much better ability both to hear and to correct mistakes that we make, and also to teach pronunciation of the foreign language (in this case English) to others. In most written text language is not in accordance with the pronunciation so in order to illustrate the correct pronunciation sort of symbolic presentation is required. One important achievement in phonetic is the emblem or symbol on a phonetic symbol system that anyone can learn and that can be used to represent sounds in the language.

Hamann (2005) said that Phonology is concerned with how sounds function in relation to each other in a language. Phonology is part of the linguistic sound associated with the organization in a specific language. It focuses on the phonemes, but also can involve unspoken linguistic movements, such as gestures, or rhyme. Phonology involves sounds used to communicate or to present something to others as a listener or receiver. Phonology is relating to illustrate the pronunciation, but by considering what is relevant in pronunciation to allow it to communicate, and what makes an utterance that is different from the others. Learning pronunciation is very important in communicating to avoid misinterpretation.

Pronunciation problems arise when the students have to imitate the sound that is difficult to imitate and also sound more or less same, for example, such as sound [ʊ] in the word "full" compared with [u] in word "fool" or sound [I] in word "sit" compared with
sound [i] in word "seat". The problem is also due to difference in spelling, which is generally the student spelling using the mother tongue. Then in a foreign language learning the way to spelling and reading is very different.

This problem is caused by the difference between the learners’ language and the target language. Ramelan (cited in Riadi, 2013, p. 8) said that “English causes problem for Indonesian learners since there are sounds in English that do not exist in their native language”. In learning foreign languages, especially students in Indonesia, the students will encounter some problems as mentioned above. In this case the student also must pay attention to the difference pronunciation between the long and short English vowel.

There are several types of measurement standards found by the experts to examine the pronunciation, for example, intonation-listening, pitch change, stress contrast nouns and meaningful minimal pairs (Brown, 2000, p. 288). In this research, the researcher will focus on long and short English vowels. Therefore, the researcher will use a test that can examine the difference with minimal pairs test. According to Brown (1995, p. 165) stated that “Minimal pairs are pairs of words which differ in the pronunciation of one sound only”. In other words minimal pairs can be interpreted as two words are the same and differ only in a single sound. It has great potential to cause errors in pronunciation, students are usually difficult to distinguish the sound of words that sound alike but have different meanings and also sometimes the students difficult to imitate the sound itself. Minimal pairs are often used to show that two sounds contrast in a language.

As explained previously that in between long vowels and short vowels that can be paired is a vowel that has the same pronunciation but different only in length. Furthermore, there are three pairs of long vowels and short vowels are to be compared. Other than that there are three pairs of long vowels and short vowels to be compared as above. The first is the vowel [i] and [I], the second is the vowel [ʌ:] and [ə], and the third is the vowel [uː] and [ʊ]. Guion et al (2000) investigated the interaction between the system’s first language or native language and second language or foreign language in bilingual participants to see the effect of the first language or native language against the use of a second language or foreign language.

RESEARCH METHODS

Descriptive method was conducted with the main objective to describe some processes and phenomena in the sense of what happened. The use of qualitative descriptive method has helped the researcher to be easier to explain and illustrate the results of research by using his own words or sentences. The use of qualitative descriptive method had helped
the researcher to be easier to explain and illustrate the results of research by using own words or sentence.

Urdan (2005, p. 1) stated that a population is an individual or group that represents all the members of a certain group or category of interest. The population of this research was the second semester English department students of IKIP PGRI Pontianak in academic year of 2016/2017.

Purposive sampling is a type of nonprobability sampling in which the researcher consciously selects specific elements or subjects for inclusion in a study in order to ensure that the elements will have certain characteristics relevant to the study. The second semester english department students were become the sample of the research. Student taken as samples in this research were 5 students in every class. According to Teddlie & Yu (2007) said that Purposive sampling techniques has also been referred to as nonprobability sampling or purposeful sampling or qualitative sampling. As noted above, purposive sampling techniques involve selecting certain units or cases based on a specific purpose rather than randomly. Purposive sampling is also called judgmental sampling, the sampling based on "judgment" of the researcher who those who deserve (fulfill the requirements) as the sample. By using purposive sampling, the researcher has chosen the criteria for the sample is the class which has the lowest score in English. It was obtained after the researcher consult with an English lecturer. Samples with the lowest score described some of the factors influencing students’ problems in pronouncing long and short English vowels. 5 students for each class were considered representative of the population targeted as Cohen, Manion and Morrison (2005:93) “a sample size of thirty is held by many to be the minimum number of cases if researchers plan to use some form of statistical analysis on their data”.

**Technique and tool of data collection**

Technique of data collecting is very important to obtain relevant results from this research. The researcher conducted this research to analyze how well the students’ ability in pronouncing long and short English vowels is and the problems of students in pronouncing long and short vowels. To collect the data, the researcher used performance measurement as oral test. The Students asked to read a few sentences that exist on paper with the correct pronunciation while the researcher recorded the students’ voice when reading the sentences. So test performance testing activities focused primarily on oral rather than written test as a student learning outcomes. Researcher also used the interview to know the factors that influence students’ pronunciation problems in pronouncing the long and short vowels in
English. Kind of interview used by the researcher was a semi structured interviews with guide of interviews. In the interview, the researcher took samples by using purposive sampling.

Tool of collecting data in this research was Minimal Pairs test. Minimal Pair is a measurement tool used to measure the students’ achievement of pronunciation. Postlethwaite (2005:33) states, “Measurement is a process that assigns a numerical description to some attribute of an object, person, or event”. In this research, to measure the students’ achievement, the researcher used test. The form of the test is a performance test. The researcher used the test by using minimal pairs. The forms of those measurements were taken from students reading aloud and then the researcher recorded students’ voice.

After measurements test was conducted, sound recording was analyzed. According to Puspita (cited in Riadi 2013) said that there are three ways to analyze the data, such as:

Coding

A code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data (Saldana, 2008, p.3). In this research, researcher conducted coding by changing the information that had been got into a symbol.

In this case the researcher transcribed the phonetically students’ pronunciation into the phonetic transcript. Errors in pronouncing of vowels can be identified after listening to the sound recordings of students that have been recorded previously.

In this stage the researcher collaborates with native speakers of English. Cooperate with native speakers can improve the reliability and validity of the results of this research. It is because the standard of good pronunciation has been mastered by native speaker.

Organizing

After the data had been obtained and coded by the researcher, the researcher organized the data into a number of divisions based on the rubric of pronunciation.

Counting

The next is the analysis of the students’ performance scored, here the researcher saw students’ individual score and students’ mean score, and then the researcher analyzed the criteria to interpreting the final data.
FINDINGS

The aim of this research was to find out the students’ ability in pronouncing long and short vowels in English and to find out the factors the students’ problem in pronouncing long and short vowels in English. To know the students’ ability in pronouncing long and short vowels, the researcher creates tables that focus on students’ individual scores and students’ mean score. The researcher conducted this research on February 7th 2017.

Firstly the researcher calculated the result of student’s individual score. The student’s individual lowest score was 13.3 and the students individual highest score was 80. The researcher presented the students individual score by the sum of students quality score according to the rubric times 100 divided the sum of total score if all are correct according to the rubric.

The analysis of the students’ mean score on test

The researcher presented the mean score by calculated the sum of students’ score and divided by the sum of the total number of students was illustrated as follows: \( M_1 = \frac{\sum X}{\sum N} \)

\[ M_1 = \frac{1226.62}{30} \]
\[ M_1 = 40.89 \]

Based on the computation students mean score above, the researcher found that students mean score was 40.89. It means the students mean score on the pronunciation test include in category “fair”. It means that the students face difficulties in pronunciation. To further analyze of the frequency of the students’ score in measurement test especially on pronunciation test in terms of long and short vowels, the researcher used distribution of relative frequency below:

<table>
<thead>
<tr>
<th>The Students Individual Score</th>
<th>Criterion</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>76-100</td>
<td>Excellent</td>
<td>1</td>
<td>3.33 %</td>
</tr>
<tr>
<td>51-75</td>
<td>Good</td>
<td>10</td>
<td>33.33%</td>
</tr>
<tr>
<td>26-50</td>
<td>Fair</td>
<td>13</td>
<td>43.33%</td>
</tr>
</tbody>
</table>
Based on the table above, it was found that so many students who got individual scores in the category "fair" and the mean score in the same category (40.89). The number of students who score in the category "poor" was 6 students, the number of students who score in the category "fair" was 13 students, and the number of students who score in the category "good" was 10 students, the number of students who score in the category "excellent" was 1 student. The results of students' pronunciation with a bar chart as below:

![Bar Chart]

The Interview was conducted with a purposive technique on three key resource persons. Informants who were interviewed extensively by name using the initials, DS, RS, and MA. Interviews with interviewee conducted on Saturdays, February 7, 2017. Based on student’s opinion the researcher concluded some factor that influences student’s problem in pronunciation, especially in pronouncing long and short vowel.

Based on the result of interviews, it could be concluded that the students’ problems because of an error or problems occurred during the process of learning English.

Social Aspects

Beside students’ problem cause of an error or problems occurred during the process of learning English. Social aspect also became a factor that influence of first students’ problem in pronouncing word in English. The social aspects also play a role in influencing student learning English. With some of the results of interviews that have been obtained by researcher, The researcher concluded that the cause of the problems of the students in
learning English, especially in terms of pronunciation was because of an error during the learning process and also caused by factors social aspects.

The Total Number and Percentage of Students Pronunciation

There were 15 sentences in which consist of two vowels in each sentence. Thus there were 30 vowels that have been pronounced by the students. Therefore there were phonetic transcription 900 and therein researcher found that 368 words with correct pronunciation, 532 words were incorrect vowels. The table below was about correct and incorrect students’ pronunciation. In order to determine the proportion of correct and incorrect pronunciation done by the students in pronouncing long and short vowels, the researcher used the following formula:

\[
X1 = \frac{\sum Er}{\sum W} \times 100\%
\]

- \(X1\) = the percentages of vowels
- \(Er\) = number each category vowels
- \(W\) = number of pronounced vowel
- \(\sum\) = sum

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
<th>Number</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Correct pronunciation</td>
<td>368</td>
<td>40.89 %</td>
</tr>
<tr>
<td>✗</td>
<td>Incorrect pronunciation</td>
<td>532</td>
<td>59.11 %</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>900</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Differences between the results of the correct pronunciation with incorrect pronunciation could be seen with more percentage of incorrect pronunciation rather than the correct pronunciation. Total number and Percentage of Students Pronunciation in chart form as follows:
**DISCUSSION**

Based on the research finding, it could be seen that many students have problem in pronouncing long and short vowels. The results of students in pronouncing long and short vowels it could be categorized into "fair" (40.89). There were only 2 students who scored above average or at least could get 60 for an individual score. At least the students could pronounce vowels correctly as many as 18 of the total 30 vowels that should be pronounced.

Based on minimal pair test that has been conducted, where the test focuses on long vowels and short vowels consisting from [iː] and [I], [ɑː] and [ʌ], [uː] and [ʊ]. The first is minimal pairs [iː] and [I], the pair consisted from the word bit and beat, fit and feet, sit and seat, rich and reach, and also the ship and sheep. From this first test, the number of students who have a mispronounced the word "bit" consisted from 16 students and students who have a mispronounced the word "beat" totaled 10 students. Next a test on the pair words "fit" and "feet". The number of students who mispronounced the word "fit" was 19 students and the number of students who mispronounced the word "feet" were 11 students. The next test the pair of words "sit" and "seat". The total number of students who mispronounced the word "sit" was 15 students and the total number of students who mispronounced the word "seat" was 11 students. Next test the pair the word "rich" and "reach". The total number of students who mispronounced the word "rich" was 16 students and the total number of students who mispronounced the word "reach" was 19 students. Then the test pairs the word "sheep" and "ship". The total number of students who mispronounced the word "sheep" was 18 students and the total number of students who mispronounced the word "ship" was 21 students.

Second one, incorrectly pronunciation of the vowel [ɑː] and [ʌ] which consisted of words cut and cot, hut and hot, nut and not, shut and shot, as well as the cud and cod. The number of students who made incorrect pronunciation of the words "cut" was 8 students and the number of students who made incorrect pronunciation of the words "cot" was 28 students. Next number of students who made incorrect pronunciation of the words "hut"
was 16 students and the number of students who made incorrect pronunciation of the words "hot" was 23 students. Next number of students who made incorrect pronunciation of the words "nut" were 16 students and the number of students who made incorrect pronunciation of the words "not" was 29 students. Next number of students who made incorrect pronunciation of the words "shut" was 22 students and the number of students who made incorrect pronunciation of the words "shot" was 28 students. Next number of students who made incorrect pronunciation of the words "cud" was 18 students and the number of students who made incorrect pronunciation of the words "cod" were 28 students.

Third, incorrect pronunciation of vowel [u:] and [ʊ], which consisted of words pairs pull and pool, full and fool, hood and who’d, soot and the suit and the latter could and Cooed. The number of students who made incorrect pronunciation of words "pull" was 18 students and the number of students who made incorrect pronunciation of words "pool" was 14 students. The number of students who made incorrect pronunciation of words "full" was 30 students and the number of students who made incorrect pronunciation of words "fool" was 6 students. The number of students who made incorrect pronunciation of words "hood" was 7 students and the number of students who made incorrect pronunciation of words "who’d" was 19 students. The number of students who made incorrect pronunciation of words "soot" was 12 students and the number of students who made incorrect pronunciation of words "suit" was 24 students. The number of students who made incorrect pronunciation of words "could" was 13 students and the number of students who made incorrect pronunciation of words "Cooked" was 15 students.

Based on data that had been obtained above, it could be seen that the number of students’ mispronounced in short vowel less when compared with the mispronounced in long vowel. Total number of mispronounce in short vowels were 247, while the total number of mispronounce in long vowel were 283. It was proven by the more the mispronounced of students in pronouncing long vowels in English when compared with the mispronounced of short vowel. In Bahasa Indonesia or students’ local language (Malay) there is no long vowel as in English. It causes student assume that every vowel more or less the same.

From the results of this research, the researcher concluded that the second semester English department students of IKIP PGRI Pontianak have pronunciation problems in pronouncing long and short vowels because of most students were difficult to distinguish long vowels and short vowels because a first language or mother tongue students does not have a long vowel. However there was also a word that has a short vowel difficult for students. Like the word "full" all students mispronounce of that word (appendix).
From the results of the student’s pronunciation, it could be seen mispronounced of the students per word. Starts from the word "not" as much as 29 students, then the word "cot", "shot" and "cod" as many as 28 students, then the word "suit" as many as 24 students, the word "hot" as many as 23 students, and then the word "ship" as many as 21 students, the word "reach" as many as 19 students, then the word "pool" and "Cooked" totaled 15 students, then the word "feet" and "seat" as many as 11 students, then the word "beat" which totaled 10 students, then the word "hood" as many as 7 students and the last is the word "fool" as much as 6 students. There was also word pronounced by the students with the pronunciation of the student’s first language. There was also the word that is pronounced long by the students because it has the same vowel in it as the word "hood" and "soot" which was supposed to be pronounced with a short vowel in English. It showed that the students' problem in learning a foreign language caused due to negative transfer of the student's first language or mother tongue or local language into the target language.

From the result of data interview that had been analyzed by the researcher, it could be concluded that some of factors that influence learning English. This factor was factors Students' problems during the learning process which contains about the differences of the way to spell and the way to pronounce words or letters and the influence of the mother tongue. Next factor was the social aspect which also affects the learning process of students as the environment the neighborhood and the support of parents at home that affect students learning English. Swan and Smith (2001, p. 279-294), which identifies linguistic problems and stated that Indonesian students may have problems in learning and using English which is divided into three parts such as Phonological aspects, students’ problem during learning process and social aspects.

As Hidayah Rohmah (2014) said, the factors causing errors made by students are Interlingual transfer, which is caused by the interference of their mother tongue, and Intralingual transfer which is a negative transfer within the target language (English). Finally, it could be concluded that the factors that influence students’ pronunciation of vowel pronunciation, especially in the long and short vowels in English caused by confusion or problems during the learning process. Furthermore caused by the social aspect in which there is the influence of the mother tongue in learning a foreign language is often referred to as a negative transfer into the target language.

CONCLUSION

From the data that has been obtained by researcher, it has been found that from 30 students only 2 students who got scores with the category of "good" with a score of 60 and
the "excellent" with a score of 80. With a mean score of students were 40.89 which categorized into "fair". It proves that the student has a problem in pronouncing long and short vowel in English with long vowels that consists of [i:], [a:], [u:] and short vowels that consists of [I], [A] and [ʊ].

Pronunciation problem faced by the students due to the basic differences in the students' first language to target language want to learn by students. It can be seen with different long vowel and short vowel in the target language in this case English, whereas in the student's first language (Malay and or Bahasa Indonesia) only has a short vowel. Thus more students made mistakes in pronouncing the long vowels in English when compared to the mistakes made in short vowel. Also, there was the word pronounced by the students using the way to pronounce in the student's first language as the word "suit" students pronounce with [səйт]. Furthermore there was a misunderstanding in understanding the vowels. Students pronounced a short vowel with a long vowel in the word because there were two vowels so that students assume that the word pronounced with a long vowel as in the word "hood" and "soot". From the result of interview, the researcher got information that there were several factors that affect the learning English. The first was the problem of students for English language learning. There were the differences between the first language and the target language. In this case are English. The next factor is the social aspect. It contains about environmental issues around the student both inside and outside the school and the family's role in learning.

REFERENCES


