CHAPTER IV

RESEARCH FINDING AND DISCUSSION

This chapter presents the research finding and the discussion. It provides the data found from the research. In addition, it discusses data description and presentation, analyzes English pronunciation and phonemic transcription data, and the correlation between the ability of phonemic transcription mastery and the English pronunciation.

A. Research Finding

From the research conducted, it was obtained some data. There are two kinds of data source which was obtained; the data from pronunciation and phonemic transcription. The data is in the form of score, so it is included of interval data. After the data from pronunciation and phonemic transcription test were obtained, it was used to calculate the correlation between both of them.

1. The ability of English Pronunciation

Here is the table of pronunciation score of 6^{th} semester students from the smallest to the largest one:

Table 4.1

Pronunciation score

No	Names of the students	Pronunciation Score
1.	Mursyidah	50
2.	Fatimah Ariyanti	50
3.	Anisah	50
4.	Santi Febrianti	50
5.	Jumiati	55
6.	Munadia	55
7.	Nurul Husna	55
8.	M. Ilhamsyah	55
9.	Lailiati	55
10.	Heri	55
11.	M. Lintang islami	60
12.	Yuspa Rifdayanti Fitri	60
13.	Mariah Olfah	60
14.	Laily Husna	60
15.	Lia Agustina	60
16.	M. Rizal Nashrullah	60
17.	Aulia Noviana	60
18.	Siti Kholidah	60
19.	Masniah Widyastuti	60

20.	Zulkifli	60
21.	Akhmad Mujakir	60
22.	Mahbuub	60
23.	Annisa Urrahmah	60
24.	Marasdiansyah	60
25.	Ruhaniah	60
26.	Arini Huda	60
27.	Ermayati	60
28.	Mardiah	60
29.	Maulida Hajriani	65
30.	Anna Muliana	65
31.	Eka	65
32.	Dini Indriani	65
33.	Marhamah	65
34.	Miftah Farid	65
35.	Nurhasanah	65
36.	Herlianti	65
37.	Hamidah	65
38.	Fitrie	65
39.	Siti Liani	65
40.	Azizah Zahratun Nisa	65
41.	Jamiyah	65

42.	Annita Rahmaniati	70
43.	Aqila	70
44.	Rahmawati	70
45.	Ahmad Jamidi	70
46.	Ardi	70
47.	Azizah	70
48.	Alpisah Norwahyuni	70
49.	Normayani	70
50.	M. Nasri	70
51.	Rachmad Riyadi	75
52.	Sari Aprilliana Fatmawati	75
53.	Nadya Meilina	80
54.	Jamiatul Ulya	80
55.	Kharisma	80
56.	Rahmaita	80
57.	Deny Anugrah	80
58.	Lily Nur izatti	85
59.	Jakiah	85
60.	Hj. Munawarah	85
TOTAL		3890

The writer determines the students' pronunciation score by applying this formula:

$$M = \frac{\sum X}{N}$$

M = Mean

∑X = Total score of students' pronunciation test

N = Total Number of the respondents

Students' Pronunciation Score

$$M = \frac{\sum X}{N}$$

$$= \frac{3890}{60}$$

$$= 64,83$$

After calculating the mean of the students test result by applying formula above, the writer determines the degree of the students' pronunciation by consulting to these following categories:

Table 4.2

Qualification of Students' Pronunciation

No	Range of Score	Qualification	Frequency	Percentage
1.	80-100	Very Good	8	13.3%

2.	60-<80	Good	42	70%
3.	40-<60	Average	10	16.7%
4.	20-<40	Bad	-	-
5.	0-<20	Very Bad	-	-

It can be seen from the table that the score range 80-100 is "very good" qualification in pronunciation, in which only 8 student or 13,3% of the students belong to this qualification. Most of the students have "good" qualification which is between the score range 60-<80, in which there are 70% of the students or 42 students are included into this qualification. There are 10 students whose qualification between the score range 40-<60. It means that 16,7% of the students have "average" qualification. Meanwhile, there are no student who has "bad" or "very bad" qualification, in which the score range is between 20-<40 for "bad, and between 0<20 for "very bad".

After consulting to the categories, the writer can conclude that students' pronunciation is good.

2. The Ability of Phonemic Transcription Mastery

Besides the ability of pronunciation which was found out, it was also carried out the test which was conducted to know the students" ability of phonemic transcription mastery. Here is the table of phonemic transcription score of 6th semester students from the smallest to the largest one:

Table 4.3

Phonemic Transcription Score

No	Names of the students	Phonemic Transcription Score
1.	Mariah Olfah	30
2.	Mursyidah	30
3.	Anisah	30
4.	M. Lintang islami	35
5.	Jumiati	35
6.	Munadia	35
7.	Dini Indriani	35
8.	Fatimah Ariyanti	35
9.	Yuspa Rifdayanti Fitri	40
10.	Laily Husna	40
11.	Lily Nur izatti	40
12.	Eka	40
13.	Nurul Husna	40
14.	Miftah Farid	40
15.	Nurhasanah	40
16.	Annisa Urrahmah	40
17.	Ardi	40
18.	Azizah	40
19.	Maulida Hajriani	45

20.	Herlianti	45
21.	Marasdiansyah	45
22.	Hamidah	45
23.	Siti Liani	45
24.	Ruhaniah	45
25.	Lailiati	45
26.	Santi Febrianti	45
27.	M. Rizal Nashrullah	50
28.	Anna Muliana	50
29.	Aqila	50
30.	Akhmad Mujakir	50
31.	Kharisma	50
32.	Rahmaita	50
33.	Ahmad Jamidi	50
34.	M. Ilhamsyah	50
35.	Fitrie	50
36.	Arini Huda	50
37.	Alpisah Norwahyuni	50
38.	Heri	50
39.	M. Nasri	50
40.	Siti Kholidah	55
41.	Marhamah	55

42.	Masniah Widyastuti	55
43.	Rahmawati	55
44.	Zulkifli	55
45.	Azizah Zahratun Nisa	55
46.	Mardiah	55
47.	Annita Rahmaniati	60
48.	Jamiatul Ulya	60
49.	Rachmad Riyadi	60
50.	Hj. Munawarah	60
51.	Mahbuub	60
52.	Deny Anugrah	60
53.	Ermayati	60
54.	Jamiyah	60
55.	Sari Aprilliana Fatmawati	60
56.	Normayani	60
57.	Jakiah	65
58.	Nadya Meilina	70
59.	Lia Agustina	70
60.	Aulia Noviana	70
TOTAL		2935

The writer determines the students' phonemic transcription mastery score by applying this formula:

$$M = \frac{\sum X}{N}$$

M = Mean

$\sum X$ = Total score of students' phonemic transcription mastery test

N = Total Number of the respondents

Students' Phonemic Transcription Mastery Score

$$M = \frac{\sum X}{N}$$

$$= \frac{2935}{60}$$

$$= 48{,}91$$

After calculating the mean of the students test result by applying formula above, the writer determines the degree of the students' phonemic transcription mastery by consulting to these following categories:

Table 4.4

Qualification of Students' Phonemic Transcription

No	Range of Score	Qualification	Frequency	Percentage
1.	80-100	Very Good	-	-

2.	60-<80	Good	14	23,3%
3.	40-<60	Average	38	63,3%
4.	20-<40	Bad	8	13,3%
5.	0-<20	Very Bad	-	-

The table shows that no student has "very good" qualification, in which the score range is 80-100. 23,3% of the students are between the score range 60-<80. It means that 14 students are included into "good" qualification. 38 students or 63,3% of the students are between the score range 40-<60, in which it is included "average" qualification. "Bad" qualification, which is between the score range 20-<40, is 13,3% of the students or only 8 students. And there are no student included in 'bad' qualification' whose score range is between 0-<20.

After consulting to the categories, the writer can conclude that students' phonemic transcription mastery is average.

3. Normality test

According to Sugiyono (2010, p. 75) before it is decided to use parametric statistic to calculate the correlation, it should be tested by the normality test. Therefore, it has been test for the normality. Here is the result:

Table 4.5

Tests of Normality

	Kolmogorov-Smimov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pronunciation	.176	60	.000	.925	60	.001
Transcription	.111	60	.065	.962	60	.058

a. Lilliefors Significance Correction

It can be seen from the table that the data distribution is normal based on the calculation of *SPSS 17* by using *kolmogorov-smirnov* test.

4. The Correlation between the ability of phonemic transcription and the English pronunciation data from the ability of pronunciation and the phonemic transcription mastery was used to answer the last research question. It was used to analyze whether there is correlation between the ability of pronunciation and the phonemic transcription mastery. Here are both of the data:

Table 4.6

Pronunciation and Phonemic Transcription Score

No	Names of the students	Pronunciation Score	Phonemic Transcription Score
1.	M. Lintang islami	60	35
2.	Yuspa Rifdayanti Fitri	60	40
3.	Annita Rahmaniati	70	60

4.	Jumiati	55	35
5.	Mariah Olfah	60	30
6.	Maulida Hajriani	65	45
7.	Laily Husna	60	40
8.	Nadya Meilina	80	70
9.	Lily Nur izatti	85	40
10.	Jamiatul Ulya	80	60
11.	Lia Agustina	60	70
12.	M. Rizal Nashrullah	60	50
13.	Aulia Noviana	60	70
14.	Anna Muliana	65	50
15.	Munadia	55	35
16.	Siti Kholidah	60	55
17.	Eka	65	40
18.	Aqila	70	50
19.	Dini Indriani	65	35
20.	Rachmad Riyadi	75	60
21.	Marhamah	65	55
22.	Nurul Husna	55	40
23.	Masniah Widyastuti	60	55
24.	Jakiah	85	65
25.	Rahmawati	70	55

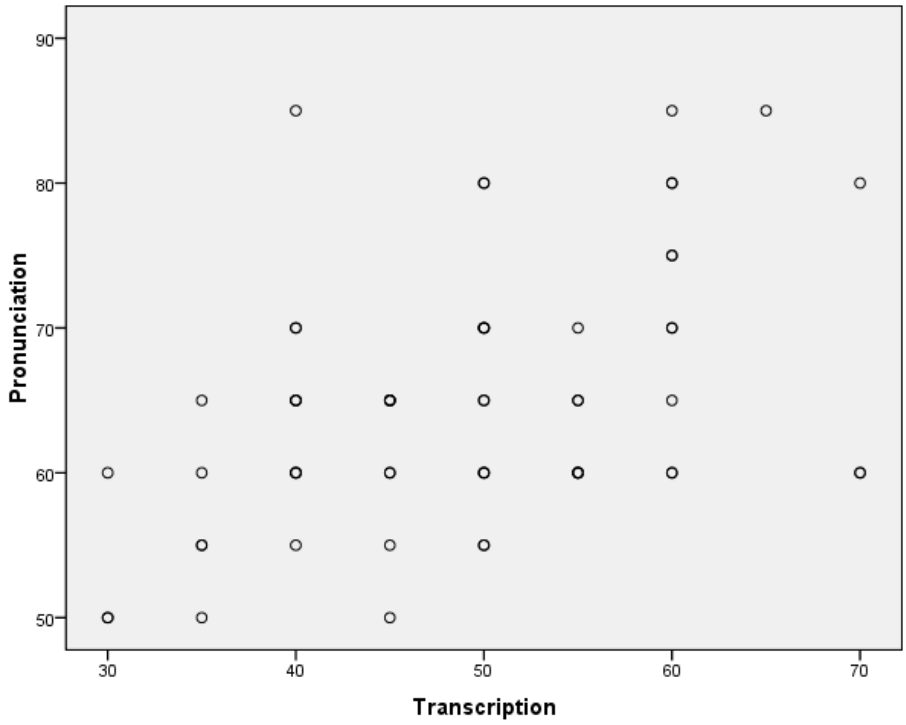
26.	Zulkifli	60	55
27.	Akhmad Mujakir	60	50
28.	Hj. Munawarah	85	60
29.	Miftah Farid	65	40
30.	Mursyidah	50	30
31.	Kharisma	80	50
32.	Mahbuub	60	60
33.	Rahmaita	80	50
34.	Nurhasanah	65	40
35.	Herlianti	65	45
36.	Annisa Urrahmah	60	40
37.	Ahmad Jamidi	70	50
38.	Marasdiansyah	60	45
39.	M. Ilhamsyah	55	50
40.	Hamidah	65	45
41.	Ardi	70	40
42.	Fitrie	65	50
43.	Azizah	70	40
44.	Siti Liani	65	45
45.	Deny Anugrah	80	60
46.	Azizah Zahratun Nisa	65	55
47.	Ruhaniah	60	45

48.	Fatimah Ariyanti	50	35
49.	Arini Huda	60	50
50.	Lailiati	55	45
51.	Anisah	50	30
52.	Ermayati	60	60
53.	Jamiyah	65	60
54.	Alpisah Norwahyuni	70	50
55.	Mardiah	60	55
56.	SariAprilliana Fatmawati	75	60
57.	Normayani	70	60
58.	Heri	55	50
59.	Santi Febrianti	50	45
60.	M. Nasri	70	50

From the data presented in the table above, it can be drawn a scatter diagram which shows the correlation between pronunciation and phonemic transcription. Below is the diagram of pronunciation and phonemic transcription score:

Picture 4.1

Scatter plot showing the Correlation between Phonemic Transcription and Pronunciation



It can be seen from the diagram that there is correlation between pronunciation and phonemic transcription. Meanwhile, the correlation formed is positive correlation. However, to make sure that there is correlation, it needs calculation to find out the correlation and to see whether the correlation is significant.

From the data obtained, it was calculated by using *SPSS* (*Statistical Package for the Social Science)* 17 to know whether there is correlation between pronunciation and phonemic transcription.

The result of the calculation is as follows:

Table 4.7

The Value of Correlation

Correlations

		Transcription	pronunciation
transcription	Pearson Correlation	1	.457**
	Sig. (2-tailed)		.000
	N	60	60
pronunciation	Pearson Correlation	.457**	1
	Sig. (2-tailed)	.000	
	N	60	60

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

According to the table, product moment correlation between phonemic transcription and pronunciation is 0,457. Meanwhile the value of sig. presented in the table is 0.000. Furthermore, there are two stars at the value of correlation in which it shows that the correlation is significance at the level 0.01.

Besides calculating the correlation by using *SPSS* (*Statistical Package for the Social Science)* 17, it is also calculated manually. Here are the calculations:

Phonemic transcription = X

English pronunciation = Y

Table 4.8

The calculation of X as Independent Variable (Phonemic Transcription) and Y as Dependent Variable (Pronunciation)

No	X	Y	X^2	Y^2	$x_i\ y_i$
1	35	60	1225	3600	2100
2	40	60	1600	3600	2400
3	60	70	3600	4900	4200
4	35	55	1225	3025	1925
5	30	60	900	3600	1800
6	45	65	2025	4225	2925
7	40	60	1600	3600	2400
8	70	80	4900	6400	5600
9	40	85	1600	7225	3400
10	60	80	3600	6400	4800
11	70	60	4900	3600	4200
12	50	60	2500	3600	3000
13	70	60	4900	3600	4200
14	50	65	2500	4225	3250
15	35	55	1225	3025	1925
16	55	60	3025	3600	3300
17	40	65	1600	4225	2600

18	50	70	2500	4900	3500
19	35	65	1225	4225	2275
20	60	75	3600	5625	4500
21	55	65	3025	4225	3575
22	40	55	1600	3025	2200
23	55	60	3025	3600	3300
24	65	85	4225	7225	5525
25	55	70	3025	4900	3850
26	55	60	3025	3600	3300
27	50	60	2500	3600	3000
28	60	85	3600	7225	5100
29	40	65	1600	4225	2600
30	30	50	900	2500	1500
31	50	80	2500	6400	4000
32	60	60	3600	3600	3600
33	50	80	2500	6400	4000
34	40	65	1600	4225	2600
35	45	65	2025	4225	2925
36	40	60	1600	3600	2400
37	50	70	2500	4900	3500
38	45	60	2025	3600	2700
39	50	55	2500	3025	2750

40	45	65	2025	4225	2925
41	40	70	1600	4900	2800
42	50	65	2500	4225	3250
43	40	70	1600	4900	2800
44	45	65	2025	4225	2925
45	60	80	3600	6400	4800
46	55	65	3025	4225	3575
47	45	60	2025	3600	2700
48	35	50	1225	2500	1750
49	50	60	2500	3600	3000
50	45	55	2025	3025	2475
51	30	50	900	2500	1500
52	60	60	3600	3600	3600
53	60	65	3600	4225	3900
54	50	70	2500	4900	3500
55	55	60	3025	3600	3300
56	60	75	3600	5625	4500
57	60	70	3600	4900	4200
58	50	55	2500	3025	2750
59	45	50	2025	2500	2250
60	50	70	2500	4900	3500
∑	2935	3890	149625	256900	192725

To find out the coefficient correlation, it is used the formula:

$$r_{xy} = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{N(\sum X^2) - (\sum X)^2\}\{N(\sum Y^2) - (\sum Y)^2\}}}$$

Where:

r_{xy} : Coefficient correlation between correlated variables X and Y

N : The total number of the students

$\sum xy$: The amount of multiplication between variables X and Y

X : The score of students' phonemic transcription test

Y : The score of students' pronunciation test

$$r_{xy} = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{N(\sum X^2) - (\sum X)^2\}\{N(\sum Y^2) - (\sum Y)^2\}}}$$

$$r_{xy} = \frac{60 \times 192725 - (2935)(3890)}{\sqrt{(60 \times 2149625 - 8614225)\,(60 \times 2256900 - 15132100)}}$$

$$r_{xy} = \frac{(146350)}{\sqrt{\{120363275\}\{120281900\}}}$$

$$r_{xy} = \frac{(146350)}{\sqrt{144775234}}$$

r_{xy}= 0.457328

After the value of the correlation was found out, then it was calculated the significance of correlation coefficient test. The steps are:

1. Developing hypothesis

By using correlational formula, the writer finds that the degree of correlation between the phonemic transcription mastery and students' pronunciation is 0,457 and by using *SPSS*, the writer finds that the degree of correlation between the phonemic transcription mastery and students' pronunciation 0,457 and the significance is 0,000.

Table 4.9

Standard Categories of "r" Product Moment Value

The Value of "r" Pearson Product Moment (r_{xy})	Interpretation
0,80 – 1,00	There is a very strong correlation between variable X and variable Y
0,60 – 0, 80	There is a strong correlation between variable X and variable Y
0,40 – 0, 60	There is a fair or moderate correlation between variable X and variable Y
0, 20 – 0, 40	There is a weak correlation between variable X and variable Y
0,00 – 0, 20	There is no correlation between variable X and variable Y

B. Discussion

The students of 6th semester of English Education Department (PBI), Antasari State Institute for Islamic Studies Banjarmasin are used as the population in this study. Because they have got phonology class, in which they have been introduced to pronunciation and also phonemic transcription. Meanwhile, in syllabus of phonology, it is mentioned that pronunciation and phonemic transcription based on *IPA (International Phonetic Alphabet)* are included in the materials that the students of 6th semester have to achieve in phonology class. Moreover, this research was conducted at the end of semester so that they have got the entire teaching of phonology.

Substantively, there were 105 students of 6th semester joining the phonology class. However, at the time when the research was being conducted, there were some students who could not join the test of pronunciation and phonemic transcription. Therefore, there are 60 students used as the sample. These 60 students are divided into 3 classes; A, B, and C class. Each class is in different time when the test held, but they were treated equally. The seats they use to sit were arranged so that it could minimize cheating. They had 30 minutes to do the test. Based on the research finding obtained from the test, then it is discussed the result of the finding. It covers the ability of pronunciation and phonemic transcription, and the correlation between those two variables.

1. The Ability of Pronunciation

Based on the result of research finding on the ability of pronunciation, it can be seen that the score range 80-100 is "very good" qualification in pronunciation, in which only 8 student or 13,3% of the students belong to this qualification. Most of the students have "good" qualification which is between the score range 60-<80, in which there are 70% of the students or 42 students are included into this qualification. There are 10 students whose qualification between the score range 40-<60. It means that 16,7% of the students have "average" qualification. Meanwhile, there are no student who has "bad" or "very bad" qualification, in which the score range is between 20-<40 for "bad", and between 0<20 for "very bad" qualification.

The students are tested by a combination of Augustin Simobobda's theory about alternative pronunciation test and the ideal oral test. This combination will result higher objectivity than just using one kind of test. In conclusion, the test result indicates that most of the students have a good understanding in mastering pronunciation in segmental features. In which the range of average is 60 –<80.

2. The Ability of Phonemic Transcription

The table shows that no student has "very good" qualification, in which the score range is 80-100. 23,3% of the students are between the score range

60-<80. It means that 14 students are included into "good" qualification. 38 students or 63,3% of the students are between the score range 40-<60, in which it is included "average" qualification. "bad" qualification, which is between the score range 20-<40, is 13,3% of the students or only 8 students. And there are no student included in 'bad" qualification whose score range is between 0-<20.

The test result indicates that most students only have "average" ability in transcribing into the phonemic symbol in which the range of average is 60-<80, not the good one. Peter Roach (2001, p. 5) said that transcriptions with its symbols have an important role in pronunciation. It is helpful to use it than ordinary spelling in teaching pronunciation. And this is probably caused by the separation of phonemic and pronunciation class. The separation makes the students have a little problem in understanding phonemic transcription and its symbol while studying pronunciation because the phonemic transcription (phonology class) is taught in 5^{th} semester meanwhile pronunciation class is taught in 3^{rd} semester. Ideally the phonemic transcription and its symbol should be taught in same semester with pronunciation so the students can correlate their knowledge of phonemic transcription and pronunciation easily.

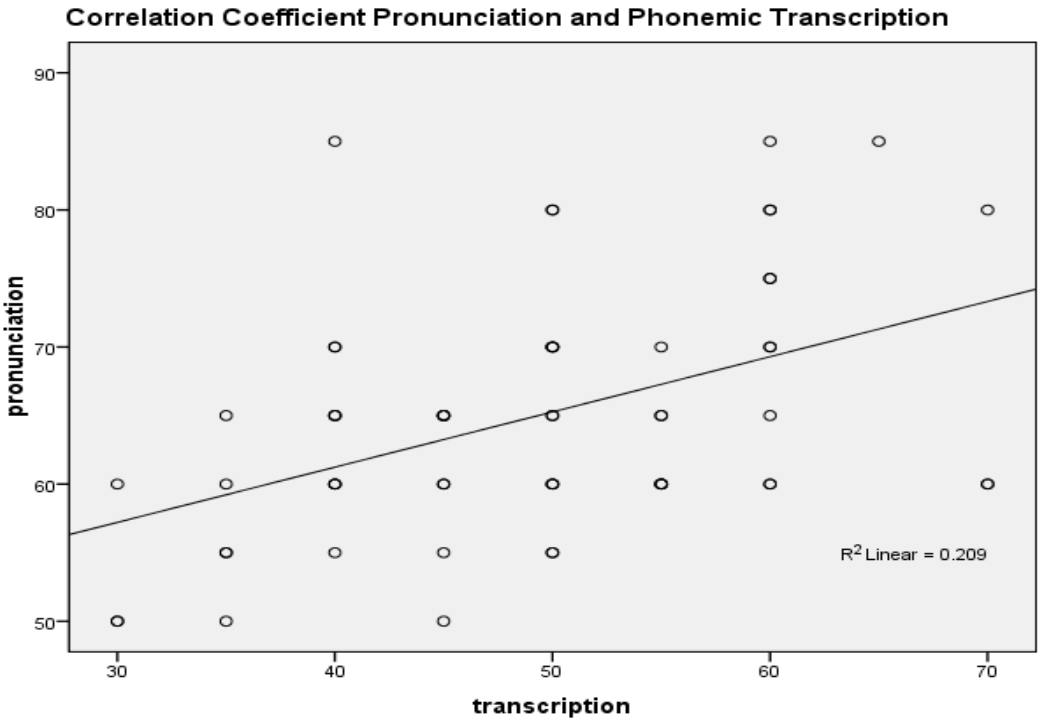
3. The Correlation between the Ability of Phonemic Transcription and the English Pronunciation

After calculating the normality test, in which it shows that the data distribution is normal, it is calculated the correlation between the ability of phonemic transcription and English pronunciation.

From the data calculated, it was found that the value of product moment correlation between phonemic transcription and pronunciation is 0.457. It means that the change of phonemic transcription mastery is positively followed by the ability of pronunciation. Furthermore, after testing the significance, the correlation between those two variables is significance since the value of sig. is 0.000. it is shown by two stars (**) at the value of correlation. It also can be seen in the scatter plot below.

Picture 4.2

Scatter plot showing the Correlation between Phonemic Transcription and Pronunciation with the Regression Line



Product moment correlation between English pronunciation and phonemic transcription as it was obtained is 0.457 positive. The graph above also shows that there is positive correlation between pronunciation and phonemic transcription, in which the correlation is significance. It can be seen at the regression line which has skewed slope. It proves that there is significance correlation between English pronunciation and phonemic transcription.

More detail about table of product moment can be seen in appendix. Then it is found that the "*r*" value for N= 60 is 0.254 for 5% significance degree and 0.330 for 1% significance degree. It is clear that $r_{xy} > r_{t..}$

$r_{xy} = 0.457$

$r_{t} = 0.254$ & 0.330

$r_{xy} > r_{t}$

It means, that the hypothesis null (H_o) is rejected and hypothesis alternative (H_a) is accepted. It means there is a significant correlation between students' pronunciation and phonemic transcription.

Based on the result above, similar with the theory presented by Pekka Lintunen that indicates in his article *Phonemic* Transcription *and Its Effect on Learning* that pronunciation and phonemic transcription mastery correlates. It shows that it is effective in teaching method for foreign language learners of English by using phonemic transcription. The students who are able to transcribe well are able to develop their pronunciation. Therefore, using phonemic transcription to improve students' pronunciation is very useful.