

CHAPTER IV

FINDINGS AND DISCUSSION

A. Findings

1. General Description of the Research Location

a. Brief History of Mechanical Engineering of Banjarmasin State Polytechnic

Because of good prospects of six Polytechnics that are established by the government in 1978, through the “Loan Agreement” with World Bank in 1986, the government began to build other 11 (eleven) Polytechnics in eleven other universities. One of them is Polytechnic of LambungMangkurat University. Then, it has started teaching and learning formally since 1987 at Diploma level (D2) in three majors, namely Civil Engineering, Mechanical Engineering and Electrical Engineering.

Further, by helping of EEDP (Engineering Education Development Project) and the issuance of Decree of the Minister of Education and Culture No. 080 on April 28th, 1997, about Polytechnic of LambungMangkurat University’ status was proclaimed as independent Polytechnic, so that the name was changed be Banjarmasin State Polytechnic, consequentially in academic year 1997/1998, the D2 program of all engineering include Mechanical Engineering changed into D3 program.

b. Description of Mechanical Engineering Facilities

Mechanical Engineering of Banjarmasin State Polytechnic has enough facilities for supporting the process of teaching and learning. To make the clear description, they can be seen in appendix 6.

c. Description of Lecturers, Technician Staff, Administration Staff and Students' condition

Mechanical Engineering as one of majors in Banjarmasin State Polytechnic has 34 lecturers, 17 technician staff and 3 administration staff, also has 58 automotive students. For more information about this, it can be seen in appendix 3, 4 and 5.

2. Description of The Second Semester Students' Mastery in English for Mechanical Engineering at Mechanical Engineering (Automotive Class) of Banjarmasin State Polytechnic

It has been described that mastery in English for Mechanical Engineering was defined as the mean of the skills and elements of language that have been tested by the test items which have been consulted with some English lecturers, especially advisor and an English lecturer of Banjarmasin State Polytechnic about what the appropriate test for the students is. The test consists of 5 multiple-choice questions in grammar part, 5 true-false questions in reading part, 5 gap-filling question in

vocabulary part, and 3 passages for paraphrasing in speaking part. There are the data about the students' test result.

Table 4.1 Description of the second semester students' mastery in English for Mechanical Engineering at Mechanical Engineering(automotive class)of Banjarmasin State Polytechnic

No	Name	The score				Average
		Grammar	Reading	Vocabulary	Speaking	
1	St. 1	40	60	100	33.33	58.33
2	St. 2	40	100	100	55.55	73.89
3	St. 3	40	100	100	55.55	73.89
4	St. 4	60	40	100	33.33	58.33
5	St. 5	40	100	100	55.55	73.89
6	St. 6	40	100	100	44.44	72.11
7	St. 7	40	60	100	55.55	63.89
8	St. 8	40	100	100	55.55	73.89
9	St. 9	40	100	100	77.77	79.44
10	St. 10	40	100	100	66.66	76.67
11	St. 11	60	60	60	33.33	53.33
12	St. 12	40	100	100	66.66	76.67
13	St. 13	60	40	100	55.55	63.89
14	St. 14	80	40	100	44.44	66.11
15	St. 15	60	60	100	44.44	66.11
16	St. 16	40	100	100	44.44	71.11
17	St. 17	80	100	100	66.66	86.67
18	St. 18	40	60	100	44.44	61.11
19	St. 19	60	100	100	55.55	78.89
20	St. 20	60	60	100	55.55	68.89
21	St. 21	60	60	60	44.44	53.61
22	St. 22	20	40	100	44.44	53.61
23	St. 23	40	100	100	66.66	76.67
24	St. 24	80	100	60	33.33	63.33
25	St. 25	40	80	80	66.66	66.67
26	St. 26	60	80	100	55.55	73.89
27	St. 27	40	100	100	66.66	76.67
28	St. 28	60	60	100	44.44	66.11
29	St. 29	40	80	80	44.44	56.11
Total						1983.78

Mean	68.41
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Based on the data above, the total score of 29 second semester students of Mechanical Engineering in mastering English for Mechanical

Engineering is 1983.78 and the mean score is 68.41 that can be categorized in “fair” category.

The next table shown the scores gotten by the whole students based on their result

Table 4.2The frequency distribution of the test result of the test

No	Score	Frequency
1	86.67	1
2	79.44	1
3	78.89	1
4	76.67	4
5	73.89	5
6	72.11	1
7	71.11	1
8	68.89	1
9	66.67	1
10	66.11	3
11	63.89	2
12	63.33	1
13	61.11	1
14	58.33	2
15	56.11	1
16	53.61	2
17	53.33	1
Total		29

It can be summed up according to the data above that the highest score is 86.67 and the frequency who gets this score is 1 student and the lowest score is 53.33, the frequency who gets this score is also 1 student. The scores are classified as follows:

Table 4.3 Description of classification into some categories

Score	Category	Frequency	Percentage
80-100	Excellent	1	3.45%
70-<80	Good	13	44.83%

60-<70	Fair	9	31.04%
50-<60	Low	6	20.69%
0-<50	Very Low	-	-
Total		29	100%

Based on the data above, it can be seen that there are 1 student (3.45%) obtains excellent score (80-100), 13 students (44.83%) get good score (70-<80), 9 students (31.04%) get the scores between 60-<70 that are interpreted as fair, 6 students (20.69%) get low score and there is no student who gets very low score.

3. The Influence of Internal and External Factors on the Students' Mastery in English for Mechanical Engineering

The students' mastery is influenced by some factors. There are two factors that influence the students' mastery in English for Mechanical Engineering, namely internal and external factors. Internal factors are divided into three parts, they are students' interest, students' motivation, students' learning activity. On the other side, external factors will be divided into two parts, students' learning facilities and teachers' competence. They will be explained more below.

a. Internal

1). Students' interest

To know the students' interest in English for Mechanical Engineering, the researcher distributed questionnaire to the students. Their interest can be seen in the following table:

Table 4.4 The students' Interest in English

No	Interpretation	Frequency	Percentage
1	Very like	3	10.34%
2	Like	3	10.34%
3	Quite like	21	72.41%
4	Less like	2	6.89%
5	Dislike	0	0%
Total		29	100%

According to the data above, it can be seen that 3 students (10.34%) very like English and 3 students (10.34%) also like English, and there is dominant percentage, namely 21 students or 72.41% of the students quite like English, 2 students (6.89%) less like English and no one (0%) dislike English

Table 4.5 The students' attendance in the English Class

No	Interpretation	Frequency	Percentage
1	Always	19	65.52%
2	Often	9	31.03%
3	Sometimes	1	3.45%
4	Seldom	0	0%
5	Never	0	0%
Total		29	100%

Based on the data above, 19 students (65.52%) state that they are always attend to the English class, 9 students (31.03%) often attend to the English class, 1 student (3.45%) says that he sometimes attends to the English class, and nobody states that he seldom or never attends to the English class.

Table 4.6 Frequency of students' in bringing Dictionary on the English Class

No	Interpretation	Frequency	Percentage
1	Always	2	6.9%
2	Often	8	27.59%
3	Sometimes	13	44.83%
4	Seldom	1	3.45%
5	Never	5	17.24%
Total		29	100%

In the data above, it shows that 2 students (6.9%) always bring their English dictionary when study English, 8 students (27.59%) often bring their dictionary, 13 students (44.83%) sometimes bring their dictionary, 1 student (3.45%) seldom brings their dictionary and 5 students (17.24%) never bring the dictionary.

Table 4.7 Frequency of students' in bringing Handbook on the English Class

No	Interpretation	Frequency	Percentage
1	Always	5	17.24%
2	Often	15	51.72%
3	Sometimes	2	6.89%
4	Seldom	0	0%
5	Never	6	20.69%
Total		29	100%

In the data above, it shows that 5 students (17.24%) always bring their English handbook when study English, 15 students (51.72%) often bring their handbook, 2 students (6.89%) sometimes bring their handbook, no student (0%) seldom brings their handbook and 6 students (20.69%) never bring the handbook.

2) Students' motivation in learning

Motivation as one of the internal factor that can influence the mastery of the students can be seen in the following table:

Table 4.8 Description students' motivation in learning

No	Interpretation	Frequency	Percentage
1	My own eager	0	0%
2	Compulsory subject	27	93.11%
3	Earn knowledge	2	6.89%
4	Recommendation by others	0	0%
5	Others reason	0	0%
Total		29	100%

Based on the data above, no student (0%) states that he attends the English class because of his own eager, 27 students 93.11% state that they attend the English class because of English is one of the compulsory subject that must be fulfilled, 2 students (6.89%) state that they attend the English class to earn knowledge, and no student (0%) states that he attends the English class because of the recommendation by others or because of others reason.

3) Students' learning activity

Learning activity by the students is also one of the factors that can influence their mastery in English for Mechanical Engineering. These are the data that related to the students learning activity to master their English lesson. In collecting the data about students' learning activity, the researcher has collected the data by using questionnaire that consists of some points as seen in the following table.

Table 4.9 The frequency of Student in asking some question for unclear material

No	Interpretation	Frequency	Percentage
1	Always	1	3.45%
2	Often	6	20.69%
3	Sometimes	13	44.83%
4	Seldom	9	31.03%
5	Never	0	0%
Total		29	100%

Based on the data above, 1 student (3.45%) says that he always asks some questions for unclear material to the lecturer, 6 students (20.69%) often ask some questions, 13 students (44.83%) state that they sometimes ask question, 9 students (31.03%) say that they seldom ask the question and no one states that never ask the question.

Table 4.10 The frequency of students in noting material from the lecturer

No	Interpretation	Frequency	Percentage
1	Always	2	6.89%
2	Often	13	44.83%
3	Sometimes	13	44.83%
4	Seldom	1	3.45%
5	Never	0	0%
Total		29	100%

It can be summed up according to the data above that 2 students (6.89%) always note the material from the lecturer, 13 students (44.83%) often note the material, 13 students (44.83%) sometimes note the material, 1 student (3.45%) seldom notes the material and nobody who never notes the material.

Table 4.11 The frequency of students in doing homework or task from lecturer

No	Interpretation	Frequency	Percentage
1	Always	19	65.52%
2	Often	9	31.03%
3	Sometimes	1	3.45%
4	Seldom	0	0%
5	Never	0	0%
Total		29	100%

Based on the data above, there are 19 students (65.52%) that always do their homework or task from the lecturer, 9 students (31.03%) often do their homework or task, 1 student (3.45%) sometimes do their homework and task and nobody who seldom or never does their task or homework.

Table 4.12 The frequency of students in reviewing the English lesson at home

No	Interpretation	Frequency	Percentage
1	Always	0	0%
2	Often	5	17.24%
3	Sometimes	10	34.48%
4	Seldom	13	44.83%
5	Never	1	3.45%
Total		29	100%

Based on the data above, it shows that no student (0%) who always reviews his English lesson, 5 students (17.24%) often review their English lesson, 10 students (34.48%) sometimes review their English lesson, 13 students (44.83%) seldom review their English lesson, and 1 student (3.45%) never review his English lesson.

b. External

1) Students' learning facilities

In finding the information about students learning facilities, it has been taken the data by using questionnaire as in the following tables

Table 4.13The frequency of students in Owning English Dictionary

No	Interpretation	Frequency	Percentage
1	Have	24	82.76%
2	Don't have	5	17.24%
Total		29	100%

Based on the data above, it can be seen that 24 students (82.76%) have English dictionary and 5 (17.24%) students don't have English dictionary.

Table 4.14The frequency of students in Owning the handbook

No	Interpretation	Frequency	Percentage
1	Have	23	79.31%
2	Don't have	6	20.69%
Total		29	100%

Based on the data above, it shows that 23 students (79.31%) have handbook and 6 students (20.69%) don't have handbook.

2) Lecturer' Competence

There are some cases that have relation with the teacher competence.

a) Lecturer' educational background

Based on the deep interview that has been conducted, the researcher knows that the lecturer of English at Mechanical Engineering of Banjarmasin State Polytechnic is a university

graduate from LambungMangkurat University. She finished her study in 2002.

b) Lecturer' teaching and training experience

For collecting the information about lecturer teaching experience also about training about teaching and learning by the lecturer, the researcher did the interview to the lecturer. Based on the interview, the researcher knows that the lecturer' experience in teaching English is long enough, the lecturer has been teaching English since 1999 until now in LBPP-LIA Banjarmasin and the lecturer has been teaching English at Banjarmasin State Polytechnic since 2005 until now.

Based on the interview, the lecturer also said that she also have joined some trainings and courses such as T3I, TOECT TOT at Banjarmasin State Polytechnic, The Teaching of English as A Foreign Language for Intermediate Level Course in 2005, The Teaching of English as A Foreign Language for High Intermediate Level Course in 2006. The lecturer also ever was being an adjudicator "National Polytechnic English Olympic (NPEO 1) in 2013.

c) Lecturer' clarity in explaining the lesson

For collecting the information about the lecturer clarity in explaining the lesson, the researcher gave the questionnaire for the

students and did the observation in the classroom. The data can be seen in the following tables.

Table 4.15 Interpretation of Lecturers' Explanation in Teaching English

No	Interpretation	Frequency	Percentage
1	Very clear	9	31.03%
2	Clear	18	62.07%
3	Clear enough	2	6.89%
4	Less clear	0	0%
5	Unclear	0	0%
Total		29	100%

As the statement above by all of the respondents in automotive class, it can be summed up those 9 students (31.03%) state that their lecture explains the material very clear, 18 students (62.07%) state that the materials are explained by the lecturer clearly, 2 students (6.89%) state that their lecturer explains material clear enough, and no student that states their lecturer explains material less clearly or unclearly.

Table 4.16 Interpretation of Lecturers' teaching style (attractive)

No	Interpretation	Frequency	Percentage
1	Always	3	10.34%
2	Often	17	58.62%
3	Sometimes	9	31.03%
4	Seldom	0	0%
5	Never	0	0%
Total		29	100%

According to the data, 3 students (10.34%) state that their lecturer always teaches attractively, 17 students (58.62%) say that their lecturer often teaches them attractively, 9 students (31.03%)

say that their lecturer seldom teaches them attractively, and no student says that their lecturer seldom or never teaches them attractively.

The researcher also have observed their teaching and learning to know the lecturer' teaching style in teaching English. The first observation was on May 14th and the second on May 28th.

Based on the observation that has been done by the researcher, it can be concluded in general that the lecturer explains the material clearly to the students and the lecturer teaches them attractively.

B. Discussion

The data have gotten whether from test, interview, observation and documentary are processed and presented in the table and described in data presentation. Then, the data is analyzed and reported systematically based on the statements of problem those are about the students' mastery in English for Mechanical Engineering by the students from automotive class of Mechanical Engineering at Banjarmasin State Polytechnic Academic Year 2012/2013.

1. The students' mastery in English for Mechanical Engineering by the second semester students from automotive class of Mechanical Engineering at Banjarmasin State Polytechnic Academic Year 2012/2013

The data about the students' mastery have been collected by taking the test. According to the prior data, it is summed up that the highest score is 86.67 and the lowest score is 53.33.

According to the data from 29 respondents in this research, there are 1 student (3.45%) obtains excellent score (80-100), 13 students (44.83%) get good score (70-<80), 9 students (31.04%) get the scores between 60-<70 that are interpreted as fair, 6 students (20.69%) get low score and there is no student who gets very low score.

The mean score of the students' mastery in English for mechanical Engineering is 68.41. The mean is obtained from the total score that is 1983.78 which was gotten by 29 students as the respondent. Based on the mean score that was gotten by the student, it means that it can be categorized into "fair category" for students' mastery in English for Mechanical Engineering.

2. Internal and External factors that influence the students' mastery in English for Mechanical Engineering

There are two factors that influence the students' mastery in English for Mechanical Engineering, namely internal and external. From the data that has been presented in finding, it can be known that many factors can give effects for students' mastery in English for Mechanical Engineering.

It has been mentioned that students' interest has a big effect for the students' mastery. According to the data in the finding, a few of students or just about 21% of the students like English while many students or more than 70% just quite like or even less like English (6.89%). As the percentages about the students who bring the dictionary, there are just 6.89% of the students who always bring the dictionary and the data shows more than 44% of the students sometimes bring the dictionary. The percentage about bringing

handbook little bit different, the data shows that more than 51% of the students often bring the handbook. Another indicator that can indicate their interest is their attendance in the English class. Although many students (more than 70%) just quite like English but, based on the data, more than 65% students state that they always attend the class. This case is related to their motivation as the second internal factor. So, in this case, students' interest affects students' mastery that is categorized in Fair Category.

The second internal factor is motivation of the students in learning English. According to the data, almost of the students (93.11%) attend the class because of English is one of compulsory subject. It means that they do not have their own motivation to learning English, they attend the English class because English is one of compulsory subject that must be fulfilled by all of the students. It means students' motivation supports their mastery.

Another factor is students' learning activity. More than 44% of the students sometimes ask the questions for unclear materials that are not clear yet and more 20% often do that and 31% seldom do that. Another indicator about students' learning activity also can be known based on the percentages in noting the material. There is no one of the students who never note the materials. Only the percentages about the interpretation (always, often, sometimes and seldom) distinguish them. More than 50% of the students often and always note the materials from the lecturer. The other indicators are doing task or homework from the lecturer and reviewing the lesson, more than 65% state that they always do homework or task and about 34% often and

sometimes do the task and homework. While, the data about reviewing the lesson shows that 0% always reviewing the lesson and the biggest percentage is in seldom category. It can be summarized that in doing task or homework has the high percentage for always category but in contrast with reviewing the lesson. In this case, although they always do their task and homework and note the material, these activities do not guarantee them to get high score if they do not always review the lesson to make sure they really understand about the lesson. It means that students' learning activities influences their mastery.

The external factor is learning facilities that can be reflexed in possessing dictionary and handbook. According to the data which has been explained in finding, 82.76% of the students admit that they have the dictionary and 17.24% of the students admit that they do not have the dictionary. About the possessing of handbook, the data shows that 79.31% of the students admit that they have the handbook and 20.69% of the students admit that they have no handbook. It can be said that almost of the students have their own dictionary and handbook. Therefore, it can be summarized that students are good in learning activities. Almost of them have the facilities which can support their mastery, but it depends on whether they use and bring them when they study or not. So that, the learning facilities do not influence students' score that is categorized in fair category.

Another external factor is about the lecturer' competences which are divided into three parts, they are lecturer' educational background, lecturer' teaching and learning experience and training experience, and lecturer' clarity

in explaining the lesson. For collecting the data, the researcher has done the interview with the lecturer, observation in the classrooms for twice and has given the questionnaire to the students.

About the educational background of the lecturer, the lecturer got degree in 2002 and about the lecturer' teaching and learning experience, the lecturer has long enough experience in teaching English. The lecturer has been teaching since 1999 until now in one of popular private institution in Banjarmasin and the lecturer has been teaching at Banjarmasin state Polytechnic since 2005 until now. Besides, the lecturer also joined some training and courses to improve their skill in teaching and learning English, two of them are T3I, TOECT TOT at Banjarmasin State Polytechnic, The Teaching of English as A Foreign Language for Intermediate Level Course in 2005, The Teaching of English as A Foreign Language for High Intermediate Level Course in 2006. Although the lecturer has enough experience in teaching and learning English, but the lecturer was supposed to have Master Degree as educational background and was supposed to join ESP seminar or training. In this case, it influences the students' score that is not high score.

Discussing about the lecturer' clarity in explaining the lesson, the data shows that about 93% of the students state that their lecturer explains the material clearly, 6.89% of the students state their lecture explains the material clear enough and 0% of the students state that their lecturer explains the material unclearly. About the lecturer' teaching style, about 68% of the students agree that their lecturer often teach them attractively and about 31%

of the students agree that their lecturer sometimes teach them attractively. Based on twice observation by the researcher, the researcher agrees that their lecturer teaches the students attractively and explains the material clearly. Although the lecturer teaches attractively and explains the material clearly, the students do not get high score, it means that lecturer' clarity in explaining material does not influence their mastery.

According to the discussion about the students' mastery in English for Mechanical Engineering of the second semester students of Mechanical Engineering in Banjarmasin State Polytechnic and internal as well as external factors that influence the students' mastery, in fact, it has the relationship between both cases. It can be seen of the fact that the students' score are influence by their interest, motivation in learning and so forth that in include in the internal and external factors.

The internal factors such as students' interest, students' motivation in learning and students' activities in learning) are everything inside of the students which can give effect for themselves. They influence students' mastery so much. Based on the findings, almost of the students quite like English. Unsurprisingly, the highest score was gotten by the student who likes English very much and the lowest score was gotten by the student who quite likes English. Besides, almost of the students (93.11%) state that they attend the English class because of English is one of compulsory subject that must be fulfilled. If it is not a compulsory subject, they would rather not join the class. Besides, based on the data, the biggest percentage in reviewing material is in

“seldom” category. It means, students’ interest, students’ motivation and students’ learning activities influence their mastery.

The external factors are divided into two cases, namely students’ learning facilities and lecturer’ competence. Students’ facilities in learning are supposed to support their mastery in English, such as possessing dictionary and handbook. As the students’ admission, about 80% of them have both important facilities, but from the data about bringing the dictionary and handbook in English class show that the biggest category is in “sometimes and often” categories, it means that most of the students have the dictionary and handbook but they do not always bring them when they learn English in the classroom. For the second external factor about teacher competence, although the lecturer is good in teaching English based on the information that is collected by using questionnaire and taking some observation in the classroom, the lecturer has not ever joined ESP training and seminar and the lecturer was supposed to get master degree. So, in this case, learning’ facilities do not influence their mastery, but lecturer’ competence influences their mastery that is categorized in fair category.

In short, there are some factors that influence to the students’ mastery, namely the students’ interest, students’ motivation and student’ learning activities that are included in internal factor, while in external factor, lecturer’ competence influences the students’ mastery but learning facilities do not influence students’ mastery.