

CHAPTER IV

FINDINGS AND DISCUSSIONS

This chapter presents the following topics: (1) findings; and (2) discussions.

4.1. Findings

The findings of the research answered the three research questions: (1) What are the students' perception on the use of English as a Medium of Instruction (EMI); and (2) how the implementation on the use of English as a Medium of Instruction (EMI). In addition, I collected the data by conducting classroom observation and interview. As being discussed in the previous chapter, the result of the data which were gained from classroom observation and interview would be described as follows:

4.1.1 Students' Perceptions on the Use of English as a Medium of Instruction

After analyzing the data from observation and interview, I found that there were several information related to students' perception on the use of English as a Medium of Instruction (EMI) for the students. The themes and codes gained from thematic analysis were described in table 1 below:

Table 1: Themes and codes for students' perceptions on the use of English as a medium of instruction (EMI).

THEME	CODE
1. Students' feel that their interest in learning the materials improved	A. Most of students gave a good participation and attention when their teacher explained the material. B. Most of students were active in giving

	<p>their ideas related to the materials.</p> <p>C. Most of students were enthusiastic in learning the materials.</p> <p>D. Most of students were active in doing discussion.</p> <p>E. Most of students were active in doing task.</p>
<p>2. Students' feel that their Self-Confident in Speaking English Impoved</p>	<p>A. Most of students were spoken loudly in giving ideas.</p> <p>B. Most of students were responded the audience's question properly.</p> <p>C. Most of students were having eye contact in doing discussion.</p> <p>D. Some of students were not afraid in delivering their ideas to their teacher and friends in the classroom.</p>
<p>3. Students' Feel Difficult in Comprehending the Point of Mathematics and Science Materials in English.</p>	<p>A. Some students could not understand the material well.</p> <p>B. The teacher explained the materials quickly.</p> <p>C. Language used by the teacher was difficult for students' to understand the material well</p>

	<p>D. Some students could not comprehend the content of their classes.</p> <p>E. Most of students tended to translate the material first.</p> <p>F. Most of students felt confused about the special terms in Mathematics and Physics subject.</p> <p>G. Most of students had difficulty in delivering their ideas when they forgot or even did not know some vocabularies in English.</p>
<p>4. Students' Feel Difficult in Understanding the Test Items</p>	<p>A. Most of students tended to ask their teacher of Mathematics and Physics to explain and translate the questions</p> <p>B. Most of students did not understand some questions in their examination</p> <p>C. Most of students difficult in answering the question in English</p>

4.1.1.1. Students' Feel that Their Interest in Learning the Materials Improved

Based on the data collected from the observation and interview, I found that the use of English as a medium of instruction had positive impact. One of the positive impact was the students' feel that their interest in learning the materials improved.

The data gained from the interview showed that most of students were active in giving their ideas related to the materials. For example, one of the students (TNH) said that, *“I think learning mathematics and physics by using English is more interesting than using Bahasa Indonesia because I can know the concept of those subjects in English version”* (personal communication, April 11, 2019). Meanwhile, another student (SH) added that, *“Learning mathematics and physics subject by using English is more fun”* (personal communication, April 11, 2019).

In line with it, the observation data indicated that most of students’ interest and enthusiast during learning process. Most of students were active in delivering their ideas related to the materials such as giving comment, asking and answering the questions by using English after the teacher explained the materials.

Furthermore, based on the interview data, most of the students’ feel that the use of English as a medium of instruction could increase their enthusiasm in learning the materials. In addition, the finding of interview supported that one of student (AK) said that, *“In my opinion, the use of English motivates me in learning the materials”* (personal communication, April 11, 2019). Another student (DV) added that, *“If I speak English everyday especially in my school, I can join international physics Olympiad competition because I can speak English”* (personal communication, April 11, 2019). Meanwhile, the other students (KL), (SH) and (JS) had the same opinion. In line with the result of interview above, the data from observation showed that most of students were active in doing discussion with their friends and doing the tasks by themselves.

In addition, the data of observation also showed that most of students gave a good participation and attention when their teacher explained the material, especially when their

teacher explained the material by using English. On the other hand, the students had a good motivation in learning Mathematics and Physics materials in the classroom.

4.1.1.2. Students' feel that Their Self-Confident in Speaking English Improved

The data gained from the interview showed that students' feel that they self confident in speaking English in the classroom improved. Some of students were not afraid in delivering their ideas to their teacher and friends in the classroom. This finding also supported by interview data, for example one of student (SH) claimed that *"I prefer to use English than Bahasa because it makes me confident enough in delivering my opinions to my teacher"* (personal communication, April 11, 2019). Meanwhile, other students (JS) and (DV) had similar opinion.

According to the data gained from observation, it showed that the use of English as a medium of instruction would bring positive impact. In addition, the result of observation showed that most of students were spoken loudly in giving ideas and having eye contact in doing discussion. Therefore, when they were having class discussion, they were confident in responding the audience's question properly.

4.1.1.3. Students' Feel Difficult in Comprehending the Point of the Materials in English.

Based on the data gained from interview, I found that most of students had difficulty on the use of English as a medium of instruction in the classroom since it was hard to comprehend the point of the materials of Mathematics and Physics in English. They encountered great difficulties in comprehending their lectures due to the specialized

language which was completely new to them. For instance, one of the student (SH) said that, *“We all had problems in understanding the material of Mathematics and Physics because it had written in English not in Bahasa”*(personal communication, April 11, 2019).

On the other hand, the other student (ND) claimed that, *“Whenever I want to study, I have to translate, translate the words. This takes a lot of time.”* (personal communication, April 11, 2019). The study in English was a major reason for the difficulty in understanding the scientific content. For instance, one of the student (JL) said that, *“Taking an EMI course is sometimes difficult because of different concept of the material”* (personal communication, April 11, 2019).

Meanwhile, understanding the content which was delivered in English students need to be equipped with the necessary language proficiency. They feel difficult in understanding the point of the material. Thus, they had to translate the text first in order to understand the content which was time consuming (about two hours each lecture).

Meanwhile, Students’ Feel Difficult in Coping with Technical Terms of Mathematics and Sciences Subjects. Based on the data gained from interview, I found that most of students had difficulty in the use of English as a medium of instruction in the classroom because of the technical terms of Mathematics and Physics subjects. They felt confused about the special terms in mathematics and physics subjects and they forgot or even did not know about the vocabularies in English. For instance, one of the students (TNH) said that, *“Sometimes I feel confused about special terms in some subjects, for example, physics and mathematics”* (personal communication, April 11, 2019). On the other hand, the other student (SH) claimed that, *“I do not know some vocabularies in English especially in my textbook and explanation by the teachers”*(personal

communication, April 11, 2019). Meanwhile, the other student (RD), (ND) and (TR) had similar opinion.

In line with the data gained from interview above, the data gained from observation showed that most of students tended to open their dictionaries when they did not know the English of some words. This would affect to the students to think too much about the words so that it took a long time for the teachers to wait for them to look it up.

4.1.1.5. Students' Feel Difficult in Understanding the Test Items

Based on the data gained from interview and observation, I found that most of students feel difficult in understanding the test items. When the teacher of Mathematics and Physics gave the students exercises, most of students did not understand some questions in their exercises. For example, one of students (ND) claimed that *"I do not understand some questions in the exercises which is given from my mathematics and sciences teacher"* (personal communication, April 11, 2019). Another student (RD) added that *"I always ask my friends about the meaning of the questions in the exercise because I do not understand"* (personal communication, April 11, 2019). Meanwhile, some students (JS), (TNH) and (JL) had similar opinion.

In addition, the result of interview and observation also showed that most of students tended to ask their teacher of Mathematics and Physics to explain and translate the questions. For example, one of students (ND) stated that *"If I do not understand the meaning of the questions in the exam, I often ask my teacher to translate and explain it in details so that I can answer the questions"* (personal communication, April 11, 2019). Meanwhile, other students (RD), (TNH), and (JL) had the same idea.

4.2. Discussion

After I analyzed the results of data analysis by using thematic analysis, I found that there were two benefits on the use of English as a medium of instruction (EMI) for the students in the classroom. Firstly, the use of English as a medium of instruction (EMI) improved students' interest and motivation in learning the materials. They became active in giving their ideas, participating in the class, and paying attention well to the material which was being taught by the teacher. This result was in line with Hood (2010); Kusumastuti (2013); and Rahmadani (2016) who revealed that one of the pleasant things in the use of English as a medium of instruction was it could improve students' interest in learning process because it made the students feel enjoy and familiar with English. This result was supported by Tarhan (2003) who stated that learning mathematics and sciences subject matter in English restricts students' creativity and thinking ability. Thinking occurs in the native language and one learns best in his/her native language. Furthermore, EMI encourages students' interest which is detrimental to learning.

Further, the use of English as a medium of instruction (EMI) also improved students' motivation in learning the materials. In this result, the students were motivated to speak English in the classroom because they had their own goals such as continuing their study abroad, joining international Olympiad competition, and so on. This result was in line with Hood (2010); Lasagabaster (2011); Sultan (2012); Aritonang (2014); Rahmadani (2016); and Ibrahim (2001) who stated that the EMI students achieved a higher frequency of English language use both at home and at school, a more positive attitude toward English and higher motivation to learn English. This result was supported by Tilahu (2018) who revealed that, significant numbers of English medium teachers are helping the students by facilitating positive environment to use English language for the classroom interaction and students' motivation.

Additionally, the use of English as a medium of instruction (EMI) also improved students' self-confidence in speaking English inside and outside the classroom. In this result, the students were not afraid in delivering their opinion in front of teacher and their friends in the classroom. This result was in line with Yang (2015) who claimed that there would be significant improvement in students' self-confidence especially in their receptive skills such as listening and speaking.

Besides, another difficulty faced by students in using English as a medium instruction (EMI) in the classroom students in the classroom were difficulty in comprehending the meaning of the materials in English. This result was in line with Kılıçkaya (2006) who revealed that the most eye-catching result of this study can be noted as the opposing idea of the participants towards EMI for its causing a difficulty in understanding the concepts, having inadequate knowledge of the content.

Further, this study found difficulty in coping with technical term. In line with it, Flowerdew & Miller (1992) who claimed that some of the areas that students identified as difficult were handling the speed of lecture delivery, understanding new terminology and concepts and concentrating during extended periods of time. Nevertheless, Aguilar & Rodríguez's (2012) revealed that targeting students, reported satisfactory results in terms of vocabulary acquisition.

Additionally, the use of English as a medium of instruction was difficulty in understanding examination questions. In line with it, Al-Issa, 2011) show that many students have difficulties in understanding exam questions. In accordance with the other studies, Dalkız (2002, cited in Sert, 2008) also emphasized the language related problems in EMI including difficulties in grasping the questions, giving appropriate answers.

Subsequently, I also found factors contributing to the students' difficulties on the use of English as a medium of instruction (EMI) in the classroom such as lack of English proficiency as consisted of vocabulary, grammar and pronunciation. These results coincide with Arnó-Macià & Mancho-Barés (2015), Muñoz (2001), and Feixas et al. (2009) as regards the students impression of their low proficiency level. In line with it, Doiz et al. (2013) indicate that heed is usually paid to vocabulary, but grammar is hardly ever worked on in class, even by those teachers who have a background in linguistics. Firstly, they had lack of vocabulary of English especially in Mathematics and Physics terms. They tended to forget or even do not know the special terms in Mathematics and Physics subject especially when their teachers mentioned it. Therefore, if they forgot or even did not know the special terms in mathematics and physics subject or some vocabularies in English, they might be unable to deliver their ideas expressively and they might be forced to speak local language such as *Bahasa* Indonesia. This result was in line with Ibrahim (2001) who stated that students who had limited vocabulary and bad grammar competence may be unable to convey their thoughts and emotion expressively and communicatively. This result was supported by Dewi (2018) and Zhao (2016) who claimed that students felt worry and lot of pressure when they were not familiar with the vocabulary that they heard from teacher's instructions in the classroom. Therefore, teachers would use their local language such as *Bahasa* Indonesia or even ask their students to bring and open their English dictionary in order to avoid misunderstanding and make the students unfamiliar with those words.

Secondly, they tended to think too much about grammar especially in building the sentences. They also felt confused about what tenses that suitable for the sentences or even they also felt afraid of making mistake in speaking to their teacher. This result was in line with Doris and Jessica (2007); Richards (2008) who claim that the reason why the students are having

problems in their speaking is they are poor in grammar. If they are poor in grammar or even do not know the rules of grammar, they will never be able to communicate using English effectively.

Lastly, the students had errors in pronouncing some English words during learning activity. When they mispronounced those words, the teachers of Mathematics and Physics would correct their pronunciation in order to avoid this difficulty during teaching and learning process.

Besides, another factor contributing to the students' difficulties in using English as a medium of instruction in the classroom were high level of language used in the textbook.

Additionally, this study found the factor contributing to the students' difficulties in using English as a medium of instructions were teacher's high speed explanation.