#### **CHAPTER IV**

## FINDINGS AND DISCUSSION

#### A. Findings

This chapter presents about the data presentation and the findings of research related to the formulation of research questions.

1. The implementation of English as a medium instruction (EMI) in Biology class at SMA Banua Kalsel Bilingual Boarding School.

To find out about the implementation of English as a medium Instruction (EMI) in Biology class at SMA Banua Kalsel Bilingual Boarding School, the researcher used classroom observation. The researcher observed in every single activities in the classroom from pre, while, until post activity. To add more data, the researcher also used fieldnotes and observation checklist. From the instruments above the data was gathered by the researcher. The researcher did four times observations.

## a. Observation I

In the first day the researcher did the observation at class eleven B in SMA Banua Kalsel Bilingual Boarding School on Friday, July 26<sup>th</sup> 2019 at 08.00-09.20. The teacher opened the class by saying salam to them. Then, the teacher checked the students' attendance by saying "Who is absent today? After that, the teacher asked the students to close their book because they have a small quiz before they study. The teacher gave them a paper that contain some questions related to their topic last meeting which is about animal and plant cell. He gave the students several times to answer the questions. After that, the teacher point a student to answer the question by mentioned the name of the students which in the attendance list. After one question was answered by the students the teacher explained the answer too. That activity was repeated until the last questions. They all were using English. For all these activities, it was a pre-activity.

For while-activity, the teacher explain the material of animal cell and plant cell using LCD with English language and sometimes they did a small question and answer in that activity. The teacher explain with giving them an example in order to make the students easier to understand what the teacher meant. While the teacher explain the material in the slide, the students just pay attention to the teacher not writing any notes because the teacher has already given them the script of the materials in the Powerpoint so the students can focus on the teacher explanation. Then, they did questions and answers again. Next, the teacher divided the students into five group and every group consist of four students. The students did a little task in their group. The teacher moved around the class to check their group work. Then, they checked the answer together. After did a little task in a group, the teacher asked the students to close their book includes notebook, photocopies, etc. The students did another task again from the teacher. The teacher gave them a paper consist of some questions about the function of parts of cell plant. The students answered the questions for a while. Then, for checking the answer, the teacher mentioned the students' name to answer the question. After that, the teacher explained the answer. That activity was repeated until the last questions. Next activity did task again in a group. The teacher moved around. For checking the answer was different from another activities before. It was crosschecking to another group. The students asked to check the tasks from another group then they gave a score. While in the group activities the students use their mother tongue to discuss with their friends but to talk with their teacher they spoke in English.

For the last is post-activity. The teacher gave them an instruction for next meeting. Then, closed the class by saying salam. After that, the students hand-shaking to the teacher. From those all activities from pre, while, until post-activity the teacher was using English.

#### b. Observation II

The next observation was held on the same day with the first observation. It was on Friday, July 26<sup>th</sup> 2019 at 09.30-10.50. The researcher did the observation at class eleven A at SMA Banua Kalsel Bilingual Boarding School. For pre-activity, the teacher opened the class by saying salam. Then, the teacher directly asked the students to close their book for doing a small quiz. The teacher gave them some questions. He gave them several minutes to answer the question. After that, for checking the answer was still similar to the first observation, the teacher call the students' name to answer the questions. Then, the teacher explained the answer. That activity was repeated until the last question.

For the next activity, the teacher explain the material in the slides. The teacher asked them to open their books. In the middle of the teachers' explanation there was a question and answer between the teacher and the students. The teacher gave a questions and the students answer. The teacher point a student by saying the name of the student to answer the question. After that, the teacher divided them into several groups. There were four group and every group consist of five students but there was one group that consist of four students because the total number of students in this class is 19 students. The teacher gave them worksheet in every group and the students asked to discuss with their groupmate. The teacher gave ten minutes to do this task. While the students did their task, the teacher was moving around the class to check their work. The teacher asked them to close book for doing this activity. To check the answer, the teacher asked them to cross-check to another group. Then, the teacher mentioned the students' name to answer the question aloud in the class. After that, the teacher showed a video which related to the material. While playing the video, the teacher asked about the video to the students with mentioned their name. Next, they did a group work again. The teacher moved around the class to check the group work. Those all activities was held on the while-activity.

The last activity was post-activity. In this activity, the teacher gave them instruction for next meeting. Then, the teacher closed the class by saying salam. Then, the students hand-shaking to the teacher. For all those activities, from pre, while, until post-activity, the teacher used full English in teaching.

c. Observation III

The third observation was held on Saturday, July 27<sup>th</sup> 2019 at 08.00-09.25. The researcher did the observation at class eleven A at SMA Banua Kalsel Bilingual Boarding School. For preactivity, the teacher opened the class by saying salam. Then, the teacher asked the students to close their books for doing a quiz. The teacher gave the students some questions on the paper. Then the teacher gave the paper on by one. The teacher gave them five minutes to answer some questions. The teacher moved around the class. The questions was written in English. After five minutes, the teacher divided the students into some group. In every group was consists of 5 students and there was one group that only have four students because the students in the class is consist of 19 students. Then, they checking answer together. The teacher mentioned the name of the students' to answer the question orally. After that, the teacher explained the answer.

The next activity was while-activity. In this section, the teacher gave the students sheet in every group. Then, the students discussed in their group. While they were discussing, the teacher moved around the class to check a group work in each group. After a minutes, they checked answer together. The teacher mentioned the students' name to answer the questions. After that, the teacher explain the answer.

Next, the teacher explained the material in the slides. In the slide, there was some questions. Then, teacher asked the students to answer by saying their name. After that, the teacher applied a game in the slide and the students are asked to close their books. The game was there are some numbers in the slide. Then, the teacher asked the students to choose the number. Inside the number there was a question and every questions has a score. The game was so fun. The students were very exited. The winner of the game was Team 1. Next, the teacher give some questions in the slides. Then, point some students to answer the questions. After that, the teacher explained the answer.

The last activity was post-activity. In this part the teacher gave them instruction for the next meeting. After that, the teacher closed the class by saying salam. Then, the students hand-shaking to the teacher. For all those activities, from pre, while, until postactivity, the teacher used full English while he talked to the students; explained, asked questions, and answer questions.

d. Observation IV

On the fourth observation the researcher did on the same day with the third observation. It was on Saturday, July 27<sup>th</sup> 2019 at 09.40-11.05. The researcher did this observation on class eleven B at SMA Banua Kalsel Bilingual Boarding School. For the first part, pre-activity, the teacher opened the class by saying salam. Then, they prayed together before the lesson begin. The teacher asked the students to close their books to have a quiz. It held around five minutes. The teacher moved around the class to check the students' work. After five minute, the teacher asked the students to collect their work. After that, the teacher mentioned some students to answer the questions and the teacher explained the answers. Then, the teacher give them a paper that consist of some questions. The students discussed with their friends. The teacher moved around the class to check their work. Then, the teacher ask the students to answer by saying their name and explained the answer to the students.

The teacher applied a game, the game was similar to the previous observation. The students divided into four group. Every group consist of five students. The teacher showed some numbers in the slide then the students asked to choose the number. Behind the number there was a question. In every questions have a score. The teacher asked the students in order from Team 1 until Team 4. The winner for this game was Team 4. Next, the teacher give them questions in the slide. They answer together and the teacher explained the answer. That was the end of while-activity.

The last part was post-activity. Like usual, the teacher gave the students instruction for the next meeting and also give them homework. The teacher closed the class by saying salam. Then, the teacher hand-shaking with the students. For all those activities, from pre, while, until post activity the teacher used English while teaching and interacting with the students.

2. The students' perception about English as a Medium Instruction (EMI) in Biology Class at SMA Banua Kalsel Bilingual Boarding School.

To find out about the students' perception about English as a medium instruction (EMI) in Biology class answer the research question above, the researcher did an interview with some students of SMA Banua Kalsel Bilingual Boarding School. The researcher interviewed 10 students. Five students from class eleven A and five students from class eleven B. It was held on Saturday, July 27<sup>th</sup> 2019 at 13.30 in the teacher office.

## a. Student A

The student likes studying Biology using English because those are his favorite subjects. He likes Biology and also English. Studying Biology with using English made him happy. He mentioned " I like both English and Biology when in middle school. Now, Studying Biology using English make me so happy". He said that he can understand well when the teacher explain the lesson but he has a difficulty, he sometimes got an unfamiliar vocabulary so it makes him do not understand. He also said that from studying Biology using English language can make his English ability increased. Especially for listening. When he listen the explanation from the teacher it makes challenge for his ears to listen. His ear become familiar with new words. Then, he prefer to study Biology using English language than Bahasa.

b. Student B

The students felt happy for studying Biology using English language. He thought that it was an easy because he has a good provision of English when he studied at middle school but when the lesson is in high level it has new vocabularies so he sometimes do not understand. He can understand the lesson for 75% and do not understand for 25% like he mentioned "I can understand with the teacher explanation for 75% and I didn't understand for 25%". When he did not understand he usually opened his dictionary. He usually exercised his vocab in outside school time so he rarely get confused about the lesson. He said it can increased his English skill. He prefer to study using English language than Bahasa because he thought that if using Bahasa there is no obstacle inside.

c. Student C

The students felt shocked when he studied Biology using English for the first time but when he study here for along time it will make like normal. He said "Personally, I feel shocked when the first time study using English language but if accustomed it will be easier. I'm happy because it is a different method that I never faced before". He sometimes understand about the lesson and sometimes he did not understand about the lesson. When he did not understand about the lesson, he discussed with his friends or took an extra lesson with the teacher. The main difficulty that he has is about vocabulary. He got many new unfamiliar vocabulary. He thought that learning Biology using English can make his English skill improve because day by day he faced English language in studying especially for natural science. He said that if the teacher asked to him he directly answered using English in automatically. He did not shocked anymore like the first time. Then, he prefer studying Biology using English than Bahasa because in can useful for college in abroad and English is an international language he said.

d. Student D

The students felt very happy because he got a new experience to study Biology using English language. He said that it might be useful for him in the future like he mentioned "Yes, I'm very happy because I learn a new subject which important in the future maybe". He felt like a little bit difficult for understanding the material because of lack of vocabularies and have a different dialect from the teacher. He said that when the students did not understand about the lesson in the class the teacher re-explain about the lesson he sometimes discuss with his friend too. He said that the main of problem is still about the vocabulary. He thought that this method can make his English skill improve because especially for Biology. Biology has many vocabularies than the other science subjects. He said "...it can develop my skill because especially Biology has more vocabularies than the other science subject like math, chemistry, and physics so it can increase my vocabulary". Then, he prefer to study using English because if using Bahasa he cannot improve his English skill.

e. Student E

He felt happy when he study Biology using English because he thought that he not only can understand the Biology lesson but also got new vocabularies. He said that he of course has a thing that he did not understand but he directly asked to the teacher or his friends. He did not have any problems for this one year in this school. He also agreed that this method can improve his English skill because when the teacher explained the material he trained his listening skill and he can know how to pronounce the words. He mentioned ".....if we listen to the teachers' explanation it will train our listening and we can know how to pronounce the word". He prefer to study using Bahasa than English because he can accept the knowledge easier.

f. Student F

He felt shocked for the first time to study Biology using English because he usually use Arabic when he study in middle school but he is happy too. He said "For the first time I fell shocked because I usually study using Arabic in the middle school. But so far I can understand it. I'm happy to study using English because I think it easy to remember the word".

He can understand when the teacher explained the lesson but he is difficult when he want to say something because of lack of speaking. Then, if he did not understand he asked his friend beside him. He said that this method can improve his English skill because the environment influenced him. Then, he prefer to study using English because he can remember the material easier than using Bahasa. In the middle school he difficult to memorize the material he said.

g. Student G

He felt shocked when the first time studying Biology with full English. Because of he is in class eleven now. For class ten, the teacher using bilingual when teaching. He felt happy when studying. Student G said "In the first time I feel shock because using full English in the lesson because in class Ten the teacher still use bilingual in teaching Biology. I am happy with it".

He can understand about the teacher explanation well but sometimes he found a new vocabulary that he did not understand so he asked to his friend. He said that this method can improve his English skill like listening, speaking; pronouncing the words, and also increased vocabularies like he stated in the interview like this "It can improve my listening, speaking, pronunciation, and also increase my vocabulary because I am accostumed from year Ten". Then, he likes both of Bahasa and English when learning so that is fair.

h. Student H

He felt happy when studying Biology using English but on the first time he felt shock because from kindergarten to middle school used Bahasa in the instruction. He can understand about the teacher explanation but sometimes he found a new vocabulary that he did not understand. Then, he asked his friend to explain or he opened his dictionary. He said that in studying Biology the students in the class used two kinds of book: in Bahasa and English language so he can compare. He mentioned "I can understand it. But if I found an unfamiliar vocabulary I open my dictionary or ask to my friend. For the Biology books there are two version not only in Bahasa but also in English so I can search the information by myself".

For the first time he difficult to understand but it is used in daily so it was easy for him. He told the researcher that this method can improve his English skill especially for listening and speaking. Then, he prefer to study using English because it will be useful in the future he said.

## i. Student I

For the first time he studied using English language in Biology subject he felt shocked and difficult. Then, he also felt happy. In the process of learning he often did not understand about the material so he directly asked to the teacher. He did not like to write any notes in Biology subject. He said so many notes. He told the researcher that this method can improve his English skill especially in listening because the teacher has a good pronunciation. Then, he prefer to study using English because he thought that in Bahasa the term is more difficult than English like he said "I prefer to studey using English because sometimes the term in Bhasa is more difficult than English".

# j. Student J

He felt happy when studying Biology using English language. He can understand well about the explanation of the teacher but if he is a question about the material he was difficult to say because of his lack of speaking like he said "I can understand but if the teacher ask "any questions?" I difficult to say because I have lack for speaking skill. When I don't understand I ask to my friend or open my dictionary".

He said that this method can improve his English skill because he can find any new vocabularies that he do not know before. Then, he prefer to study Biology using Bahasa than English because he lack of speaking ability. He mentioned "I prefer to study Biology using Bahasa because I like it more than English since I was middle school, but I like for listening. I don't like for speaking".

## **B.** Discussion

Based on the findings, the teacher used English as a medium instruction in Biology class fully. There are three dimensions of EMI:

1. Participant (students and teacher)

The teacher use full English from pre, while, and post activity. The teacher greet the students, activating the prior of knowledge of present the topic, explaining the lesson, delivering the questions, answering the questions, presenting slides, conclude the lesson, and the last closing the lesson. Those all activities were used English. The teacher have a good competence in Speaking (teaching) and reading (textbook). Furthermore, students are answered the questions, asking the questions were also using English. The students can comprehend (listening) the lesson well. That was proved in the teaching and learning process while the researcher observe the class.

## 2. Scope of Use (courses, language skill, and tasks)

In teaching Biology the teacher use English as a medium instruction which Biology is 'universal' course so it can be attempt in English. In theoretical review on chapter two showed that courses often considered 'universal' (like mathematics and natural sciences) or 'international' (like engineering, business, accounting, etc) can be attempt in English.

For language skill. The teacher started to explain the lesson which is listening activity for the students. Then, they answered the questions from the teacher which is writing skill. Furthermore, when the teacher ask them about the lesson they explain it using English which is speaking activity. The last, for reading activity. The teacher ask them to read certain pages on the students' book. For reading activity, they just read the book in their home for the preparation for the next meeting. In addition, talk about task. While doing the observation the researcher saw that the teacher gave the students a pedagogic task which mean the students doing the task in the classroom. According to (Nunan, 1988) the pedagogic task as a task that required in the classroom.

#### 3. Setting (classroom and semester level)

In class Ten they study Biology with the local teacher who teach using bilingual: English and Bahasa. Then, when they have trained for a year they move to the next stage. The students faced the teacher from Turkey who always speak English. The teacher in teach Biology for class eleven use English in the class. Because of the students were accustomed with English in class Ten so they did not fell shocked when the teacher use EMI in class eleven.

The implementation of EMI gave both advantages and disadvantages for the students. The researcher get the information from the interview with the students. Their skills were improve (listening, speaking, writing, and reading). The students also get more addition new vocabularies. In contrast, sometimes the students have difficulties with new vocabularies while the teacher explain the lesson. This condition have mentioned by (Chang, 2010) One of the advantages of its implementation is students can improve their level of English proficiency on four English language skills, while the disadvantage is the use of EMI can cause greater difficulties in understanding the course content and inhibited them from expressing themselves fluently in the class.

In addition, students have a perception about EMI. They have their own opinion, their feeling while the teacher applying English as a medium instruction in the teaching and learning process in the classroom. Student thought that when the teacher teach in class ten using English they feel shocked because they are fresh graduate from various middle school that most of them never studying using EMI before. In contrast, they feel happy when they are in class eleven because they have trained for one year.

Studying using English language gave them a motivation to study because from the interview the researcher got some information that the students got a motivation when studying biology using English. They told the researcher that studying using EMI is more challenging. They got many new vocabularies that they do not know before.