

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter presents the findings and discussion for developing instrument of evaluation in Content-Based Instruction in which Mathematics content is integrated into English subject.

4.1. Classroom Observation

The observation was held on Wednesday 9th January, 2013. There were one Mathematics teacher and 40 students. The class began at 13.15. Classroom observation was aimed to gather information on how the Mathematics teacher conducted the lesson in the classroom activities and the difficulties that he faced during the teaching learning. Observation also conducted in order to get the real description of teaching and learning activity in the classroom.

The lesson of that day was about the use formula of the circle to find the wide and circumference of the circle or "*Luas dan Keliling Lingkaran*". Teacher beginning the lesson with brainstorming about what they have learnt in elementary school about the topic today. He also ask the students what are the parts of the circle the have learnt in the last meeting. In the elaboration, the teacher gives formula how to find the wide and circumference of the circle. And the following activity is teacher give 5 questions on board then ask the student to solve it by the formula given. He did the first number for example and asked the student to do the rest. After give the students time to do the task, two students were called to write their answer on the board.

The teacher ended the class by told the students there will be daily quiz about the topic in the next meeting.

4.1.1. Analysis of the Classroom Observation

The lesson of that day was the use formula of the circle to find the wide and circumference of the circle or "*Luas dan Keliling Lingkaran*". The teacher gave evaluation after he elaborate the formula. Kinds of question given by teacher are made by him self. In delivering the material, the teacher also did not use book. Some teachers said the class has been observe is a bilingual class. But it is found that Mathematics' book are not in bilingual.

On that day, after the teacher elaborate the formula of "*Luas dan Keliling Lingkaran*", the teacher asked students to do six numbers of exercise that teacher wrote on the board. He said it was only exercise and it will not impact to students' grade. According to the writer, this kind of method in evaluate the students is not good. Because the students need motivation to do the evaluation given.

The writer observed instrument of evaluation to the teachers by taking field notes of the interaction happened and analyzing the transcriptions of teachers' instrument of evaluation in the classroom. After observing instrument of evaluation in classroom, the writer analyzed the result of classroom observation by evaluating the data by comparing it with the analysis data from interview and listing the result.

It can be conclude that the classroom activity did not apply bilingual teaching for teaching mainstream subjects, such as Mathematics and Science. It is also found that the teachers are having problem in teaching bilingual. Therefore

they teach in Bahasa Indonesia as in regular school. To overcome this problem, the writer wants to developing instrument of evaluation in CBI to integrate Mathematics content into English subject. This is based on the fact that bilingual teaching is not applicable yet in some educational level. Content based instruction (CBI) is expected to be the right way of developing instrument of evaluation of combining language and content learning to improve teaching English.

4.2. Interview

The data of this study were gathered through three instruments, they were the interview with the teachers, observation, and study documents. The interview was held on January 9, 2013. There were 4 English and Mathematics teachers of SMP Labschool, East Jakarta as participants (respondents). The interview was held in a non-formal situation because the writer would like to get the natural answers from the respondents. The questions and answers were recorded through digital recorder.

The transcription of the interview can be seen in Appendix 2.

4.2.1. Analysis of the Interview

In the beginning process of interview the writer has written some probe question. The questions are about the bilingual teaching and the Content-Based Instruction (CBI) as general questions and followed by how the teachers developing instrument of evaluation. In the field not all the question can be asked because of many factors. So the writer needs to review the notes from interview to analyze the data.

In the conducting the interview, the writer recorded the session. This will help if there are some points were missed in the note during the interview. In this step the writer listen again the interview session while making the transcription of the session. The transcription will help the writer to find some information which is needed.

Based on the transcription of the recordings it is found that the school has already ingrate another subjects to English subject. They called the program as collaborative teaching. One of the English teachers gave an example that they ever made the instrument of evaluation collaborate to bahasa Indonesia and art subject. The material is poster and the instrument of evaluation was to ask the student to make one kind of poster that already teaches in Bahasa Indonesia subject. Also they have to decorate the poster based on what they have learned in art subjects. The system which is implied in this school is hiring native speaker teacher to collaborate with English teacher in delivering teaching material.

In the bilingual teaching of English subject, the native speaker teacher responsible is to teach speaking skill. In the five meeting per week for English class, the native speaker teacher will teach once. The teaching material was already made collaborative by English teacher and the native speaker teacher. The purpose of hiring the native speaker teacher itself is to get students courageous to speak English.

Also in Mathematics, Science and social subject were already tough in bilingual. From three of the Mathematics teacher, there is one of them who can teach in English. There are two bilingual classes of 8th grade.

The writer not found similar instrument of evaluation which is almost similar as Content-Based Instruction (CBI) in this school. But it is found that the English teacher ever already make instrument of evaluation which is collaborative with Bahasa Indonesia and art subjects. It is implied that is this school has been use the method to collaborative another subject to English subject.

The teachers develop their instrument of evaluation by team teaching with other teacher in the same level of grade. It is usually the junior teacher together with senior teacher will make the instrument of evaluation in the beginning of the semester. The material of evaluation will be taken from students guide books, exercise book (LKS), and other resources from internet. For English teacher, they usually make the instrument of evaluation after the end of chapter of the book. The instrument of evaluation was made based on the skills are going to evaluate.

There are some different method were found in this school. In Mathematics test, if the question in multiple choice there will be space beside the question. The students have to write how they solve the questions. So there is a special answer sheet for mathematics test. For English class, there are three main books that students have. The first is a book from government and exercise book (LKS) which are lead to national curriculum. Beside that there is one import book which some materials was lead to international standard.

This school also has their own way to give remedial test for students who doesn't meet standard grade. The standard grade itself is 75 for both Mathematics and English. The way to give remedial is giving explanation to the material which are students failed together in the classroom. Later the student who doesn't meet standard grade was test again with the same model of material. The creation of the test was has a lot of varieties. So it encourage student to know more about the topics.

Based on the answers from the teachers, it is clear that CBI program can be implemented in teaching and learning activities. Because the content teacher doesn't have to teaching in English which is a lot more difficult than English teacher integrate their class with terminology content materials. However CBI needs a good team teaching from content and English teachers to design the materials and develop the instrument of evaluation. This team teaching is needed to make sure the instrument of evaluation will not make students have difficulties to understand.

4.3. Documents Study

The document used in this study includes documents like teaching materials; syllabus and lesson plan written by the teachers was used as the references in developing an integrated instrument of evaluation of English and Mathematics subject.

4.3.1. Documents of the Instrument of Evaluation

Documents of teaching materials used in this research include the 8th grade English and Mathematics teacher's Lesson Plan at SMP Labschool, East Jakarta. The sample of Mathematics lesson plan was taken is the first semester. The language use in Mathematics lesson plan is bahasa Indonesia, while in English lesson plan use English. And the sample of English lesson plan was taken is the second semester. The topic selected based on developing the instrument of evaluation in CBI. For Mathematics the topics are determining the elements of circle, its parts and its size; understanding the properties of cube, cuboids, prism, pyramid, their elements and their size; and determining formula of cube, cuboids, prism and pyramid's volume. While in English the topics are expressions of admitting & denying facts, Descriptive text, and expressions of agreeing & disagreeing.

4.3.2. Analysis of the Instrument of Evaluation

In the lesson plan the instrument of evaluation represents in *penilaian hasil belajar* for Mathematics and assessment part in English. The Mathematics instrument of evaluation is written in the table. There are four column; *indikator pencapaian kompetensi*, in *penilaian* column is divided into three; *teknik*, *bentuk instrumen*, and *instrumen/ soal*. While in English lesson plan is divided into the techniques and the aspects of performance-based assessment.

4.4. Developing Instrument of Evaluation in CBI

In the developing instrument of evaluation the writer get reference from integrative syllabus and lesson plan.

- (Step 1)

In the syllabus the indicators of Mathematics subject were taken and integrate into English subject which can be matched.

- (Step 2)

In the lesson plan is designing the teaching materials and teaching activities.

- (Step 3)

The writer takes the material and skills to develop the instrument of evaluation from lesson plan.

- The validation of instrument of evaluation is done by preliminary field testing and main field testing. In the preliminary field testing, the writer interviewed the teacher about how instrument of evaluation being test to the students and what the difficulties are. Later in the mainfiled testing, the product revision of instrument of evaluation were discussed between English teacher and Mathematics teacher. It is to see wheteher the product revision of instrument of evaluation can be used in teaching learning activity.