

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

The research was conducted by using Research and Development (R & D) which was adapted from Borg and Gall (1985:775). R & D is one of research method has aim to develop and validate the educational products, like curriculum, syllabus, textbooks, instructional media, modules, or assessment instrument.

This research was conducted by following six phases of R & D, they were:

1. Gathering information and data
2. Analyzing data
3. Designing new reading materials
4. Validating new reading materials
5. Revising new reading materials
6. Revised-developing reading materials (final product)

This model of development was chosen because it has some stages which are clear and appropriate with procedure.

B. The Location and Subject of the Research

This research was conducted in SMK Negeri 2 Medan which is located at Jalan STM No. 2-A, Kampung Baru, Medan. The subject of this research was the students who are in grade XI SMK Negeri 2 Medan in Architecture Study Program. The reason why the writer chose the school, because there is no previous research in this school related to developing English reading materials for the

architecture study program. Furthermore, SMK Negeri 2 Medan use Curriculum 2013 which the textbook was provided by the Ministry of Education and Culture, so the materials used by the students of SMK Negeri 2 Medan are the same as the others school which use curriculum 2013 even though it is not related to the students' need.

C. Data and Source of Data

Arikunto (2002: 118) states that data are the result of the fact and number that can be substance to arrange the information. Data refers to the rough materials researchers collect from the world they are studying; they are the particular that form the basis of analysis. In other words, data are the information that can be gained from the subject of the research. Here, the data were the existing materials and the student's need.

Moreover, the data sources are the subject where data can be gained (Arikunto, 2006: 129). The data sources in this study were the English textbook which was published by the Ministry of Education and Culture, curriculum 2013, the syllabus, the grade XI architecture students of SMK Negeri 2 Medan, and the English teacher.

D. The Research Instrument

The instruments that were used in this research were observation list, questionnaires and interview. The observation has function to know the syllabus, curriculum, and existing textbook used by the students. The questionnaires were administered to the students for getting the data about their interest and need in

learning English, especially in reading materials. In developing the needs analysis questionnaire, this study used the theory of needs assessment proposed by Hutchinson and Waters (1987) and Nunan (2004).

Table 3.1 The Organization of the Needs Analysis Questionnaire

Aspect	The purpose of the questions	References
Target needs	Necessities To find out the type of needs by the demands of the target situation.	Hutchinson and Waters (1987)
	Lacks To find out the type of needs by the demands of the target situation.	Hutchinson and Waters (1987)
	Wants To find out the learners' needs of learning English.	Hutchinson and Waters (1987)
	Goal To find out the reason of learning English Hutchinson	Hutchinson and Waters (1987)
	Input To find out the suitable input for English learning materials that students want the most	Nunan (2004)
	Procedures To find out the suitable procedures that students want the most	Nunan (2004)

Learning needs	Setting	To find out the desired class management of doing the tasks of English learning materials (individually, in pairs, or in groups)	Nunan (2004), Hutchinson and Waters (1987)
	Learners' role	To find out the role of the learner in the learning process	Nunan (2004)
	Teachers' role	To find out the role of the teacher in doing the tasks	Nunan (2004)

An interview was covering teacher's opinion about students in learning English, the English textbook, the materials, students' interest, students' ability in learning English, the developing materials, and procedure texts. The interview was administered to the English teacher to get the information of the students' need and to support the data from questionnaires (Appendix B).

E. Technique of Collecting the Data

The data were collected, as follows:

1. The writer observed the syllabus and student's textbook. In this part the writer analyzed the basic competence and the existing materials.
2. The writer gave the questionnaires to the students. The questionnaire was used to gain information from the students about themselves or their knowledge. In this part there were some questions used to know the students' need and interest in learning English (Appendix A).

3. The writer interviewed the English teacher to confirm the data from student's questionnaire and add some information that are needed (Appendix B).

Then, opinions and suggestions from validators were asked through the expert judgments questionnaire use a Likert scale to collect the data.

F. Technique of Data Analysis

The researcher identified the main variables such as: Target need and learning need of the students of SMK Negeri 2 Medan. The data were analyzed in form of qualitative and quantitative. The qualitative data were collected from the result of interview section with the teacher. Then, the quantitative data were collected from the tabulation of the result of students' questionnaires. These data were needed to evaluate the reading materials and assess the students' need of English. So, based on the analyses, the researcher planned the recommended reading materials especially in procedure text for Architecture students by finding the materials from some sources like internet and book.

G. The Steps of Developing Materials

The steps of developing materials were:

1. Gathering data about students' need and existing materials of Architecture students through observation, questionnaire, and interview.
2. Analyzing the students' needs based on the data taken.
3. Designing the English reading materials based on the students' needs. In this step, the existing procedure text materials were developed. The

developed materials based on the syllabus. In order to develop or present well organized materials there were some principles which should be followed (Reinders and Lewis, 2006:275), namely:

- 1) Materials should have clear instructions.
- 2) Materials should clearly describe the language level.
- 3) Materials should look nice.
- 4) Materials should give a lot of practice.
- 5) Materials should give feedback
- 6) Materials should make the students easy to find what they want.
- 7) Materials should contain a lot of examples.
- 8) Materials should tell the students how to learn best.

Finally, the existing procedure texts were developed to be suitable to the students' needs by selecting procedure texts related to architecture study program from some sources.

- a. Internet: the researcher searched for procedure texts related to architecture study program in internet.
- b. Book: the researcher searched for procedure texts related to architecture study program in book.

The selected procedure texts then were adapted (modified) based on principles of materials development in order to present well organized suitable procedure text materials. The texts were adapted by adding some items to the texts and simplifying them (there were some sentences in the texts which are deleted or subtracted).

- a. Material should have clear instructions or explanations → the texts are accompanied by the explanation of procedure text including its social function, generic structure, and language features.
 - b. Materials should clearly describe the language level → the texts are accompanied by the information presented in the cover that the materials are used by the eleventh grade students of architecture study program.
 - c. Materials should look nice → the layouts of the texts are changed (designed) and they are also accompanied by pictures.
 - d. Materials should give a lot of practice → the texts are accompanied by varied reading comprehension questions.
 - e. Materials should give feedback (shows answers or let the students know how they are doing) → the texts are accompanied by the answer key.
 - f. Materials should make the students easy to find what they want → the texts themselves are developed based on the need analysis which covers students' necessities, lacks, and wants.
 - g. Materials should contain a lot of examples → there are some varied topics of procedure text related to architecture study program developed.
 - h. Materials should tell the students how to learn best → the materials help the students to learn by using the texts related to their major.
4. Evaluating or validating the draft of development. The writer gave it to the experts, in this case there were 2 validators, the first is the English teacher and the second is the lecturer. This stage was conducted to avoid the misleading in the text and made sure the texts completed to cover the students' need. The process of assessment used expert judgment

questionnaire. The questionnaire was adapted from the criteria of materials development proposed by BNSP.

5. Revising the reading materials based on the validators' suggestions.
6. Final product.

Here is the flow chart of developing the materials

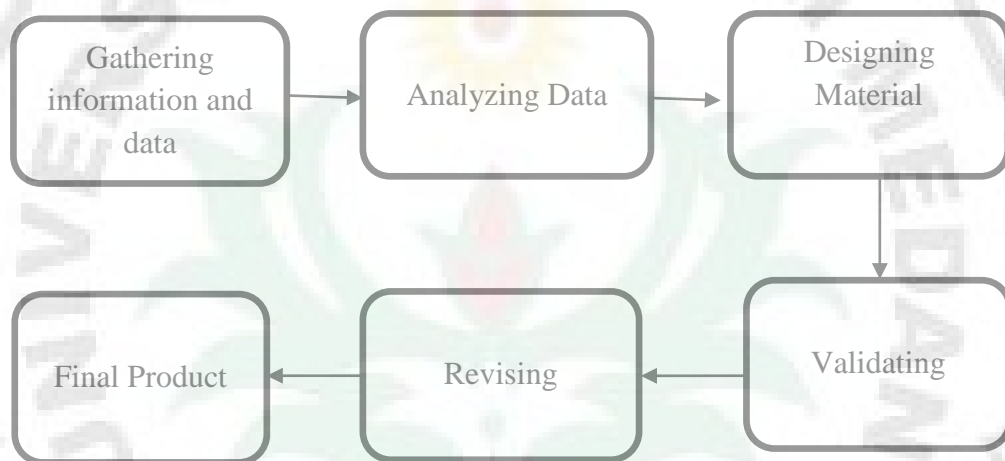


Figure 3.1 The Organization of Materials Development