

### **III. RESEARCH METHOD**

In order to answer the research problems, this chapter elaborates some important points, such as : research design, material development in educational research and development, model of development, tipe of data, technique of data analysis, validity, and research procedure.

#### **3.1 Research Design**

This research is a developmental research. To conduct it, the writer tries to apply a developmental research that yields a product, such as modules, learning program, learning designs, learning aids, evaluation or learning media which are acceptable to solve the problem (Soenarto, 2005).

The steps of this process are usually referred to as the R & D cycle, which consists of studying research findings pertinent to the product to be developed, developing the products based on these findings, field testing it in the setting where it will be used eventually and revising it to correct the deficiencies found in the field-testing stage. In more rigorous program of R & D, this cycle is repeated until the field-test data indicate that the product meets its behaviorally defined objectives.

These following are the steps of Research and Development cycle taken from Borg & Gall, which are research and information collecting, planning, develop preliminary form of product, preliminary field testing, main product revision, main field testing, operational product revision, operational field testing, final product revision, dissemination and implementation. The process of the R & D cycle in this research will however be helpful for the researcher. In the other words, R & D cycle can be categorized into three main stages which are research and information collecting, developing preliminary product and evaluating. This design is going to use one class. The class that has been chosen will be observed in classroom. After observing as the first step, the researcher will conduct the document analysis and interview to get the more detail data that is usefull to have some overview of what basically learning materials given for young learners and interviews the English teachers. Then, materials design will be conducted in teaching and learning english for EFL young learner contexts. There will be the try out in the classroom to find out how the materials work well.

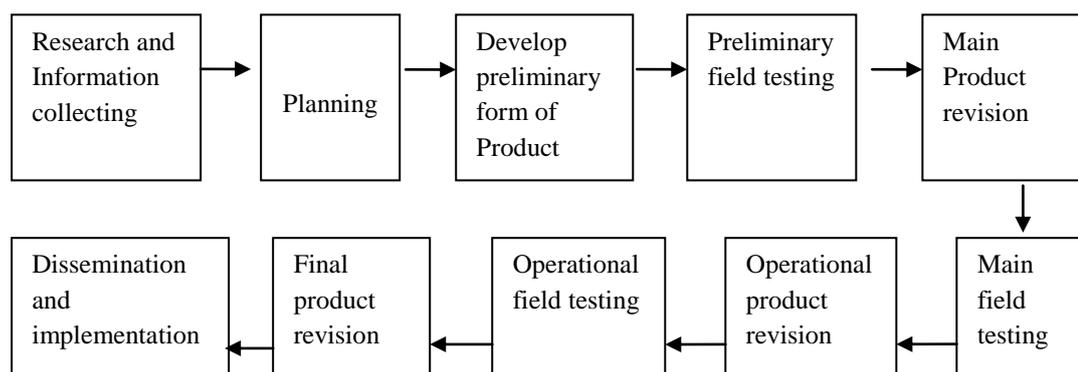


Figure 3.1 R&D cycle from Borg&Gall (Eny, 2012: 24)

### **3.2 Material Development in Educational Research and Development**

Research and Development that is proposed one by Borg and Gall has been a crucial issue in educational research. It is not merely contributing to the education world, due to the educational research and development is kind of way and process in researching and developing some products, process, methods and so on in which are planning, developing, validating and revising. Furthermore, the learning materials, which is one of most important components in teaching and learning, need to be developed while the educational system is always trying to find the best way to achieve the goal of the education itself.

Borg and Gall (1983: 772) says that educational research and development (R & D) is a process used to develop and validate educational products. Learning materials is going to be the product of this educational research and development.

There are some main steps in R & D cycle D (Borg, & Gall, 1983: 775) :

1. Research and information collecting.
2. Planning.
3. Developing preliminary form of product.
4. Preliminary field testing.
5. Main product revision.
6. Main field testing.
7. Operational product revision.
8. Operational field testing.
9. Final product revision.
10. Dissemination and implementation.

According to the R & D cycle, the process of developing takes more the presentation of this process. The process doesn't end to the developing steps. Further more, it will be continued to the validating and revising steps.

### 3.3 Model of Development

Since this research uses a development design, the principle used is modified based on the development model of Borg and Gall. The model of Borg and Gall is modified in term of limiting the try out to a limited classroom because the product that is developed is only intended to specific class. Furthermore, another modification of this development model is that having some experts to conduct the validation of the product. The adaption model of development still carries out the essential of research and development; the coverage of needs assessment, the involvement of experts to validate the product, and the try-out to find out the acceptability, usability, and utility.

The whole procedure is described in Figure 3.2 as the follows

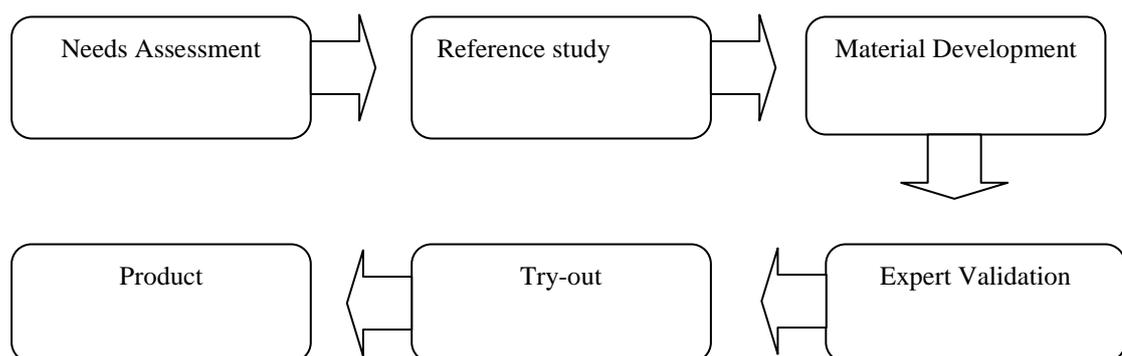


Figure 3.2 Design of Current Study (in Hermaniar 2013, adapted from Borg and Gall)

In developing the supplementary material for EFL young learners, the model proposed by Borg and Gall is adapted. The model involves the following steps: needs assessment, reference study, material development, expert validation, try-out, and final product, as follows:

- Needs assessment

Need assessment is planned at the first stage of development to be made in order to get information in terms of topic and kinds of exercises related to the proportion of the supplementary materials. The subjects of the need analysis are the English teacher of fourth grade students. The English teacher is the one who has information of the situation in learning and teaching process and students are the one who use the developed workbook. There are some activities should be carried out in this step; first, an informal observation is conducted in order to see the teaching English in SD Al-Kautsar, what kind of source materials used by students, and what kind of workbook or worksheet used by students as supported tools. These activities are done by observing the teaching English in the classroom and having questions and answer session with the students to get the information related to the implementation and instrument in the classroom. This activity is also intended to get information about the learning situation and a relevant workbook for the students.

The next activity in this stage is having an interview session with the English teacher. Interview with the English teacher is intended to gather information about the current textbook and the expected product of the

workbook. The interview hold to get information in terms of the aspects of the course description, course outline, current textbook, and the expected workbook. Another step in this need assessment stage is that collecting the documents that are used in teaching learning process including the competences. The competences here mean competences that should be achieved through the process of teaching and learning. The competences are standard and basic competences. To find out the starting point of students' needs toward vocabulary material, the researcher concerns on basic competence determining what the students have known toward what they have learned. In addition, the test of vocabulary is in terms of certain vocabulary based on basic competence they have to achieve or the test itself is that they have already got in the other word is achievement score obtained from the English teacher. Besides that, students will be given written vocabulary test consisting of several topic and students will write the vocabulary under each topics with the correct spelling.

- Reference Study

Some references which are intended to give theoretical bases of the workbook development are studied in this stage. This stage is aimed at deciding the objectives, topics discussed in the supplementary materials and develop the supplementary materials for the topics available. The following step of this research is reviewing the existing material used in the classroom, the instructional goal based on syllabus, and the course outline. The existing English materials of fourth grade in SD AL-Kautsar used as the reference study. This step involves analyzing the competences

that should be achieved in the teaching and learning. The basic competence is very considered toward whether throughout the exist materials used in the classroom help student in learning vocabulary or not and what the supplementary vocabulary materials need to develop.

- **Supplementary Material Development**

At this stage, the content is developed. As the supplementary material contains exercises, the activities in this stage will deal with them. After the general instructional objectives are formulated from reference study stage previously, the specific instructional objectives are formulated. The specific instructional objectives are elaborated into indicators that are used to develop the workbook. Relating to the task, material should lead to communicative and contextual aspects. Therefore, the task will cover the demand of course outline.

- **Expert Validation**

Validating the product is needed to evaluate whether or not the materials are rationally effective and applicable to facilitate certain activities for students in the class. The developed workbook is given to the expert to be validated to get valuable input from the feedback given. The feedback given by the expert is used to revise the workbook.

The experts who are involved in this stage are the expert in teaching English to young learners' material and the second is the expert in education or lecturer. For the expert in teaching english to young learners materials, the expert should have taught it in university for at least 5 years, has master degree in English education. For the practitioner expert in

education, the expert should teach in primary school for at least 5 years and has expertise in English education. All of the experts validate the content of the workbook, including the design, layout, competence coverage, and other criteria as they are presented in the checklist for expert validation on appendix. Through the expert judgment, some consideration related to strength and weaknesses of the workbook are identified and the content is improved. The criteria of the expert's validation include cover design, letter, typing, spacing, lay-out, organization of content, instructional objectives, topics, grammar review, tasks, instruction and language.

- Try-out

At this stage, the supplementary material developed is going to try out to the students, within the purpose to know whether the supplementary material acceptable and useable or not in teaching and learning English process. The supplementary material that is going to try out has been validated by the experts and revised based on the suggestion and correction from those experts. In try out process, the fourth grade students in SD Al-Kautsar are going to be interviewed toward the supplementary vocabulary material in learning. The data from try-out will be analyzed and used to revise the product.

- Product

The product is the supplementary material for fourth grade students in SD Al-Kautsar. It is in the form of a workbook which consists of practice and project based on the goal and objective required in the course outline.

### 3.4 Type of Data

The data collected based on the procedure of development are in the three forms.

The data are collected through needs assessment, expert validation and try out of the product.

In the needs assessment, the data are in the quantitative and qualitative form. The quantitative data are resulted from analyzing the achievement score and the qualitative data are resulted from observing and interviewing the English teacher.

In the expert validation, the data are also in qualitative and quantitative form. The quantitative data are the result of expert validation checklist and the qualitative data are in form of suggestion, comments and revisions from the expert.

The checklist from experts is scored by following the rating scale as following in Hermaniar (2013)

**Tables 3.1 Rating scale for result of checklist**

Response	Point	Description
Yes	5	The aspect is definitely fulfilled
Partially	3	The aspect is only fulfill basic description and need revision
no	1	The aspect is definitely not fulfilled

### 3.5 Technique of Data Analysis

In the needs assessment, the data resulted from achievement score are presented in form of percentage. In the other word, this shows and tells about how many students answer the item correctly. In case if 50% students or more than it who answer the item correctly it can be meant that there are 50% students or more who have known the item well. As the result, the aspect that will be involved in the supplementary vocabulary material is that the item answered under 50% students and it can be consider to be put into the consideration of supplementary materials development. For the result of the interview, it is reported descriptively by concluding the data under several points of conclusions as goals of the course, the approaches, design, type of exercises, and workbook organization. However, the result of the achievement score analyzing and interview is used as the foundation of the need of supplementary material development for the students.

In the expert validation stage, the data gathered from the experts are analyzed quantitatively by using the percentage as can be seen in the following formula proposed by Sugiyono (2008) in Hermaniar (2013)

$$\text{Percentage} = \frac{\sum (\text{responses} \times \text{weighting on each response}) \times 100\%}{N \times \text{weighting the highest response}}$$

Discussion:

$$\sum = \text{Total number}$$

N = The total number of all the items

To give decision on product's quality, the researcher uses achievement level conversion as 5 for yes, 3 for partially, and 1 for no as in rating scale. The score is converted into description by following the range of 5-Scales criterion proposed by Kuswandi (2001) in Batunan (2011) in Hermaniar (2013) as follows.

**Table 3.2 The Range of 5-Scales Criterion**

Percentage	Qualification	Discussion
90% - 100%	Very good	No revision needed
75% - 89%	Good	No Revision needed
65% - 74%	Enough	Revision needed
55% - 64%	Poor	Revision needed
0% - 54%	Very poor	Revision needed

The comments from the experts are also taken as additional information. The product which is developed will be evaluated and revised for many times based on the data gathered from questionnaire and consultation with the expert. The final comments and suggestion from both experts are used as guidance for revising the product. There are 13 aspects. The data is presented by showing the aspect, score, and total score for each aspect.

In the try-out stage, the researcher will interview students. The interview will be in small groups. Interview contains of some points that will be asks to the students and the list of the interview points presented in the appendix.

### **3.6 Validity**

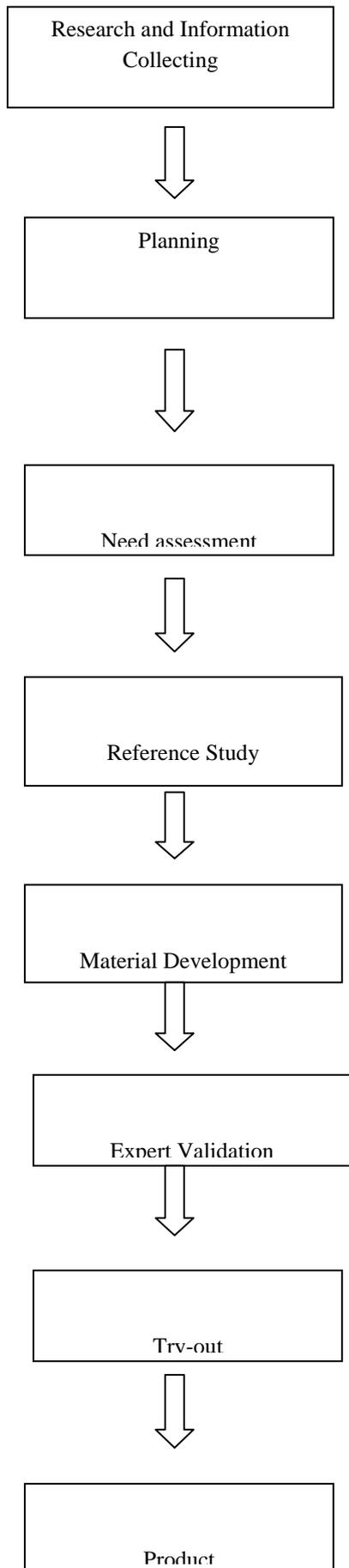
The researcher uses some methods in collecting the data which is commonly said as triangulation. Triangulation is the most common term of this collecting data method. Triangulation means the combination two or more in collecting data toward the same phenomenon. Triangulation is very important to enhance the authenticity and credibility of the data result (Setiyadi, 2006).

Altrichter et al. (1996: 117) says that Triangulation gives a more detailed and balanced picture of the situation. In this research, the researcher uses the methodological triangulation that involves some ways in collecting data : the observation, document analysis, interviews and validation sheet.

The crosscheck between the data obtained from observation, document analysis, interviews and validation sheet will be applied. This will be done to get the credibility of the different instruments.

### **3.7 Research Procedure**

This research is conducted based on the following procedures:



### **1. Determining the object of the research**

The researcher focuses on the English teaching materials used by the English teacher in SD Al-Kautsar. The English materials such English textbook that are used by the teachers in teaching young learners in SD Al-Kautsar. The English materials are learned by the fourth grade students in SD Al-Kautsar. The English materials include textbook, lesson plan, workbook, or anythings related to the teaching and learning process. The researcher concerns on the printed materials that are used by the teachers and students.

### **2. Observation and document analysis**

To have the needs assessment, the researcher has an observation of EFL young learners classroom process as the base principle to find out the problem occured in the classroom within their learning materials. The document analysis will help the researcher to find out every written documents which relates to the learning process of the learners. The purpose of conducting the observation is to find out what the teaching and learning process in the classroom basically occurs through the English materials that they are have been using and how the students participate during the classroom process. Furthermore, the document analysis has the purpose to analyze the English materials documents whether the those things have already fulfilled the students' need so that the researcher can get some consideration for designing materials.

### **3. Preparing the interviews and conducting it**

The interviews are conducted in the beginning to take the data of teachers who teach English and the students in order to find out their needs through interview. The researcher conducts the interviews before developing materials. The interviews are presented in the semi-structured interviews. While doing this, the researcher will use the same questions for each interviewing of the teachers to acquire their teaching experiences and the common activities occurred in the classroom .

### **4. Designing and developing materials**

The supplementary vocabulary material is developed based on the needs assessment. The data from needs assessment such observation, interviewing of English teacher and tests for the students are going to be used for the consideration of developing supplementary materials. Developing supplementary vocabulary material is based on the topics, target of words and vocabulary exercises.

### **5. Expert validation**

In this step, the researcher have to validate the product through some experts. Each experts can fill the checklist based on the supplementary material that has been developed and is going to try-out to the students. Experts validation result will be the consideration of product revision before conducting the try out.

## **6. Try-out**

In this stage, after developing and validating the product, the researcher is going to have try out of product. Researcher will get the feedback from the students toward the supplementary material that they use in the learning process through interviews the students in small groups.

## **7. Product**

The supplementary material has been validated and tried out. The product is revised based on the result of try-out. The final product is in form of workbook of supplementary vocabulary material for fourth grade elementary students.

We have talked about several points in this chapter. This chapter has elaborated some important points, such as : research design, material development in educational research and development, model of development, tipe of data, technique of data analysis, validity, and research procedure.