

## **CHAPTER III**

### **RESEARCH METHOD**

This chapter discusses the methodological steps such as research design, research instrument and procedure of developing materials using Group Investigation Strategy for agriculture department.

#### **3.1 Research Design**

This research belongs to R and D which the objective of this research is to develop appropriate English learning materials for Agriculture students at Muhammadiyah Gresik. In this type of study, the researcher must take evaluation to play a role in the process. The process will be done until the best product is found. Therefore, this research is classified as Research and Development since it aims to develop a material product that can be used in educational program appropriately and effectively (Borg, 2002:772). According to Borg & Gall (1983), R&D is a process used in developing and validating an educational products.

In developing EAP materials based on Group Investigation, the researcher adapt from the ADDIE model (McGriff, 2000; Kaminski, 2007, as cited in Arkün & Akkoyunulu, 2008). There are five steps in developing materials are as follows: Analyzing, design, development, implementation, and evaluation. Here the researcher through the steps of development approach in R and D research which the first steps that the researcher do is collect the data from teacher and students (collect the information). The second is to analyze the need of students aims to know the what students' need in learning English (Need analysis). The third is to design the appropriate draft in order to help the researcher in designing the materials (designing draft). The fourth step is to develop the material based on the syllabus (developing materials). The fifth step is to implement the material as main field testing (implementation of materials). The last step is to evaluate the materials after the main field testing (evaluation).

In developing EAP materials Group Investigation based model, the researcher used the ADDIE model from Mcgriff instructional system design:

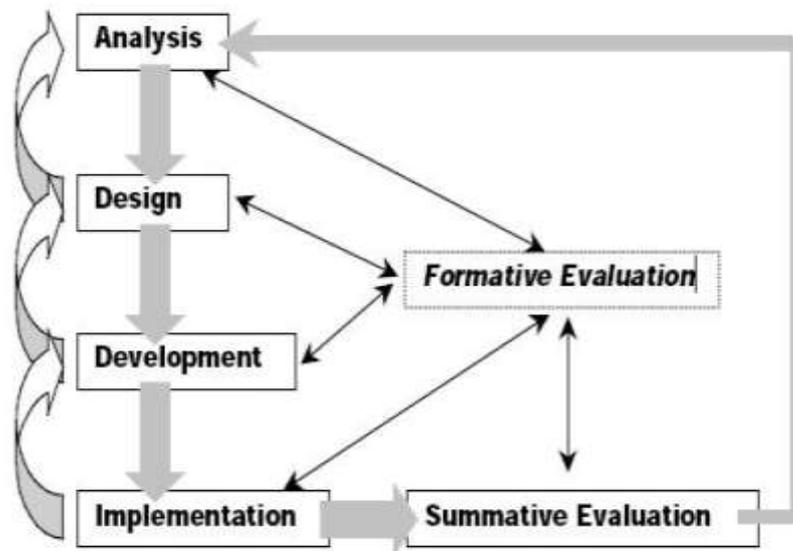


Figure 3.1: McGriff (2000) Instructional System Design

### 3.2 Procedure of Developing Materials using Group Investigation Strategy for Agriculture Department

#### 3.2.1 Analysis

The research instrument that used for conduct need analysis in this research is interview and questionnaire. The interview is doing with the lecturer of Language Center and Dean of Agriculture Department itself. Meanwhile, the questionnaire will be distributed for the Agriculture students. The instrument distributed to collect the data in order to know target need and learning need of the materials.

##### 3.2.1.1 Interview

The researcher interviews with a Lecturers who teach ESP of Agriculture Department in the second semester from Language Center and Dean of Agriculture Faculty. The researcher gives 14 questions for the interview with ESP Lecture and 10 questions for Dean of Agriculture Faculty (see in the appendix). The interview aims to complete the information needed about the curriculum, materials, strategy that used and students weaknesses. The

information is also combined to design the new materials and experts evaluation served to improve it.

### 3.2.1.2 Questionnaire

The researcher distributes the questionnaire to 13 students in the second semester. There are 32 items on the questionnaire (see in the appendix). The aim of the questionnaire is to find out the data about the target need and the learning needs of Agriculture Students. The researcher is adapt the organization of questionnaire from Hutchinson and Waters (1987) and Nunan (2004). The organized questionnaire described below:

**Table 3.1 The organization of need analysis instrument**

No.	Aspect	Item number	Question Goal
1.	Goals	1,2	To find out the learners' expectation toward the learning English
<b>Target Needs</b>			
2.	Necessities	3,4,5	To find out the learners' needs in terms of the target situation
3.	Lacks	6,7,8,9,10,11	to find out the gap between students' current knowledge and the target knowledge.
4.	Wants	12,13,14	to find out the students' needs based on their perception.
<b>Learning Needs</b>			
5.	Input/Priorities	15	to find out the priorities of the learners in learning ESP

6.	Setting	16 to 30	To find out the tasks that learners prefer (group or individually)
7.	Teacher's Role	31	To find out the role of teacher in the classroom
8.	Learner's Role	32	To find out the role of learners in the classroom

### 3.2.2 Design

In this stage, the researcher designs the lesson plan of Semester (RPS) which has been validated by the expert. The lesson plan of semester (RPS) developed by the researcher based on the existing lesson plan of Semester (RPS), then the researcher create the new one. Also design the framework of materials based on the need analysis in order to help the researcher in designing the materials including input, tasks, relevant topic, and so on. The EAP textbook consists of integrated skill. The researcher will develop EAP materials for Agriculture Department based on Group Investigation Strategy in each chapter. There are 6 steps of activities that related to the group investigation strategy as the design as follows:

a. Grouping

Grouping is the first stage of the group investigation procedure. Here the students make a group. The group aims to work together to compile the information about the topic to be investigated. Here, each group also determine the sub-topic would like to investigate.

b. Planning

The second stage of group investigation is planning. The activity of planning is choosing the topic from the book in order to investigate. It can analyze the text, pictures and videos.

c. Investigating

In this stage, students in groups start to search for information from various sources such as articles, journals, interviews etc. The information they get to meet the above planning activities. The investigation conducted by answering the provided questions. While the role of teachers here is as a guide and help students when having difficulty in collecting information.

d. Organizing

Students analyze and evaluate the information that has been collected and then summarized and plan to make a report and present the information.

e. Presenting

After summarizing the important information that has been collected, the students prepare to present the topic. Here, each student should take a role to present, so each student of a group explain the information they get in written or spoken form.

f. Evaluating

Students and teachers evaluate the contribution of the work to each group such as individual and group assessments or both.

### **3.2.3 Development**

After design the framework, the researcher develops the materials using Group Investigation strategy. The researcher used the existing EAP book as references and develop the materials based on the students need. There are six chapters to be developed for this EAP book. Each chapter there are 4 skills that are integrated. While in each skill there are 4 group investigation exercises that have levels from the easiest to the most difficult.

First is grouping as a brainstorming that aims to attract the attention of students before studying the material and get more detailed information from the topic discussion. In accordance with the principle of group investigation

strategy ie students in groups to select a topic to be investigated. Then the students collect information and knowledge related to the topic from sources other than textbook. After the information obtained is enough, students then organize the information that will be presented.

EAP materials based on Group Investigation Strategy that has been developed should be validated by some experts. The validation is done by experts who are from Language Centre and Dean of Agriculture Faculty of University of Muhammadiyah Gresik. The expert validates the content of EAP materials for Agriculture Students.

#### **3.2.4 Implementation**

In order to test the EAP materials product to Agriculture students who study ESP, the researcher presents the materials in the classroom. The researcher will try out three chapters of the entire chapter (6 chapters) in the EAP book product for three meetings.

#### **3.2.5 Evaluation**

According to the product implementation on Agriculture Department students, researcher revises the product as students' need, the content of the materials, exercises, the content of EAP materials. The revision is suggested by experts. Those evaluations are needed to modify the book in order to make EAP materials product can be used for Agriculture Department students.

#### **3.2.6 Final Product**

The final product is the final stage of developing materials after completing the evaluation then revise the EAP textbook. In the book, there are six chapters that developed by the researcher. Each chapter consists of integrated skill (listening, reading, speaking and writing). In each skill, there is group Investigation activity in which consists of 6 stages. In addition, the book features vocabulary building containing 10 vocabularies related to each topic of discussion. Also completed with language expression and language focus on each chapter.