

## **CHAPTER II**

### **REVIEW OF RELATED STUDY**

This chapter discusses the literature review and review of related study. In the literature review, the researcher describes some theories that related to the ESP and Group Investigation Strategy.

#### **2.1 English for Specific Purpose**

English for Specific Purpose (ESP) is an English learning program that is intended for students who want to improve their English skills for specific interests such as work or education interests. Smoak (2003) ESP is English instruction based on actual and immediate needs of learners. ESP is needs based and task oriented. Similar with Smoak, Richards and Schmidt (2010) in Mohammadi & Mousavi (2013) also describe English for Specific Purposes (ESP) as a language instruction or course of particular group of learners which the aims and content are fixed by the specific needs. The purpose of ESP is mastering English in accordance with their field of interest. Hutchinson and Waters (1994) say that ESP is an English teaching where the materials and methods taught are based on the reason why the learner wants to learn English.

The characteristic of ESP differs from English in general. Based on Strevens (1988) in Christian Gatehouse, there are four characteristics of ESP as an approach in English learning those are: 1) ESP is designed for specific purposes according to the needs of learners, 2) substance and content of ESP related to context in certain field of study, certain occupations or activities, 3) language form of ESP based on the activity and certain field of study, 4) ESP is different from General English. Carter, cited in Juhary (2008) identifies three types of ESP are English as restricted language, for occupational and academic purposes, with specific topics. In line with Carter, Hutchinson and Waters (1987) that distinguish ESP into 3 branches namely English for Business and Economics (EBE), English for Social Studies (ESS), and English for Science and Technology (EST). Meanwhile, each branch is differentiated into English for Academic Purpose (EAP) and English for Occupational Purpose (EOP). From the characteristic of

ESP that stated by some experts Strevens (1988), Carter in Juhary (2008), Hutchinson and Waters (1987) same in differentiating the type of ESP those are English for Academic Purpose (EAP) and English for Occupational Purpose (EOP).

### **2.1.1 English for Academic Purpose**

English for Academic Purpose (EAP) is an English training course devoted to students in academic pursuits. Students who follow EAP learning are usually Higher Education students. According to Diane (2009), EAP is one of the branches of ESP, adapted to the learners need at various levels. Meanwhile Afful (2007) EAP is a course taught in English-medium Universities to facilitate the acquisition of academic literacy skills. EAP material that taught focuses on particular departmental contexts, eg English for law subject, nurse subject, mechanical engineering subject, economics subject, maritime and so on. As defined by Brown (2001), EAP applied to any course, module, or workshop where learners are taught to deal with academically related language and subject matter. He asserts that EAP is common at the advanced level of pre-academic programs as well as in other institutional settings. Based on Kim (2013) EAP contains three main competencies that are the target of learning, namely: critical reading, writing for academic purposes, and critical thinking.

Meanwhile, as Stoller (1999) consider that an EAP setting is suitable using content-based approach to encourage students to prepare themselves in the face of content learning. In contrast to Stoller's opinion about the appropriate content-based for EAP, Jordan (1997: 2) and Dudley-Evans and St. John (1998: 34) argue that EAP as communicative English for academic purposes. According to the researcher from both of these statements means that the materials that taught in ESP should make the learners be able to communicate and interact using English.

## **2.2 Constructivism**

Constructivism is a theory of learning in which learning is an active and constructive process. Fosnot states that Constructivism is a theory about

knowledge and learning, not a theory about teaching (Brooks & Brooks, 1993, as cited by Boethel and Dimock 1999). The other experts, Christie (2005) show that constructivism is a theory about learning in which learning is both an active process and a representative of personal. In line with Fosnot and Christie, Karagiorgi and Symeou (2005) stated that constructivism is not an instructional-design theory. But it is a theory of learning.

Constructivism as an educational theory holds that teachers should consider their learners' knowledge and allow them to put their knowledge into practice (Mvududu & Thiel-Burgess, 2012). Brown in his book, *Principle of Language Learning and Teaching* fourth edition described typical themes of constructivism those are: interactive discourse, sociocultural variables, cooperative group learning, interlanguage variability and interactionist hypothesis.

### **2.2.1 Cooperative Learning**

Cooperative Learning is a teaching method in which students work together to increase their understanding of a topic. Slavin (2014) stated that cooperative learning as a pedagogical practice has had a great effect on student learning and socialization. Positive interdependence is one of cooperative learning characteristic, where learners perceive that individual performance produces better performance by the group (Johnson, et al., 2014). There are five components of successful cooperative learning that proposed by Johnson and F. Johnson (2009), The first component involves structuring positive interdependence, The second component is promoting interaction, The third component is individual accountability or one's responsibility, Assigning students to groups, The final component is group processing. Meanwhile, Kagan and Kagan (2009) identify four attributes of cooperative learning named *PIES* which stands for Positive interdependence, Individual accountability, Equal participation, and Simultaneous interaction. Some experts almost similar in proposed the component of cooperative learning, they are mentioned about positive interdependence, individual responsibility and interaction as the characteristic of cooperative learning.

### **2.2.1.1 Group Investigation Strategy**

Group Investigation is one of cooperative learning in which students work in small groups to “investigate” a learning topic. Arends (2008: 13) states that Group Investigation originally designed by Herbert Thelen and improved by Sharan and his colleagues from the University of Tel Aviv. This strategy is a method of Students Centered Learning approach where students find the information related to the topic of discussion obtained from various sources outside the textbook. Group Investigation is a method where students are instructed to examine, experience, and understand their topic of study by collaborating in small groups (Sharan and Sharan 1992:1). One of cooperative learning model Group Investigation is a learning where students are actively discussing in group, exchange their opinions and practice the activities (Hossain, 2013). The activities that apply in Group Investigation Strategy has required the students to active and experience learning by themselves. It is mean that the students learn English through meaningful learning. Based on Ausubel cited in Chin and Brown (2000), compare with rote learning, meaningful learning is better.

A Group Investigation approach can be said to be student-centered learning where the student is involved in planning the topic to be studied and conducting an investigation of the topic. In essence, there are principles in Group Investigation approach. The principle of learning using the Group Investigation strategy according to Haryono (2006: 4) are student-centered learning, learning by doing, cooperation and solidarity within the group, develop students 'social skills, curiosity and imagination, develop students' skills and creativity in problem-solving, developing students' skills in using science and technology. Almost the same as Haryono, Slavin (1995) also said that Group Investigation can develop social skills in addition to improve communication skills.

Theoretically, Group Investigation can be seen as the type of independent learning which is able to support students-center learning approach (SCL), in this case the students find a new knowledge based on their chosen topic in a group by

themselves. There are many objectives of the Group Investigation that help students see knowledge constructively, follow group processes effectively, have disciplined inquiry and commitment in social investigation, while also helping students become independent learners, respecting the dignity of all people and committed to pluralism Saputra (2003: 129). Learn English through Group Investigation strategy also facilitates and trains students in designing the research that will be done for the final project that is thesis.

Through Group Investigation strategy which students actively select as much information related to the topic, it is possible that using this strategy for EAP materials not only increase the students' creativity but also students' self-confident in learning target language. Also in the process of discussion with their friends, students can share their opinion related to the topic which can improve students communicative skill. Through active participation of students in cooperative learning will build their remembrance of new information that they get.

#### **2.2.1.1.1 Procedure of Group Investigation**

In implementing Group Investigation there are several stages proposed by some experts. One of them is Slavin (2005, p. 218), explains six stages of Group Investigation. Stage 1 identifies the topics to be examined by the group. Stage 2 conducts group investigation planning. Stage 3 conducts an investigation of the topic. Stage 4 makes a final report. Stage 5 presents the report. The last stage 6 evaluates the achievement. According to Nurhadi (2005: 118-119), the steps of group investigation model are stage 1 is the Topic selection. Stage 2 Plan of Cooperation, stage 3 Implementation, stage 4 Analysis and Synthesis. and stage 5 Final Presentation.

Sharan & Sharan; Bennett et al., (1991) explain the six stages approach to GI, described as follows:

1. Grouping

In this stage, students may use the variety of resources to activate their prior knowledge for brainstorming. Students use several questions to determine the scope of the investigation on a topic

2. Planning

Each group explores its subtopic which the questions are developed to define the scope of inquiry. They make plans about the aspect to the investigation, the deadline of report and resources needed.

3. Investigating

Each group does the research subtopic to gather the information and data from some sources. After the students get the information, they should assess which is the information relevant to the question listed.

4. Organizing

In this phase, the students summarize the information they get and plan their report. The members discuss for the presenting the materials they get.

5. Presenting

Present the results of the discussion of the topic while the other students give feedback such as the question, opinion, etc about the report and presentation.

6. Evaluating

The role of the teacher here is important. Students and teachers evaluate the contribution of the work to each group such as individual and group assessments or both.

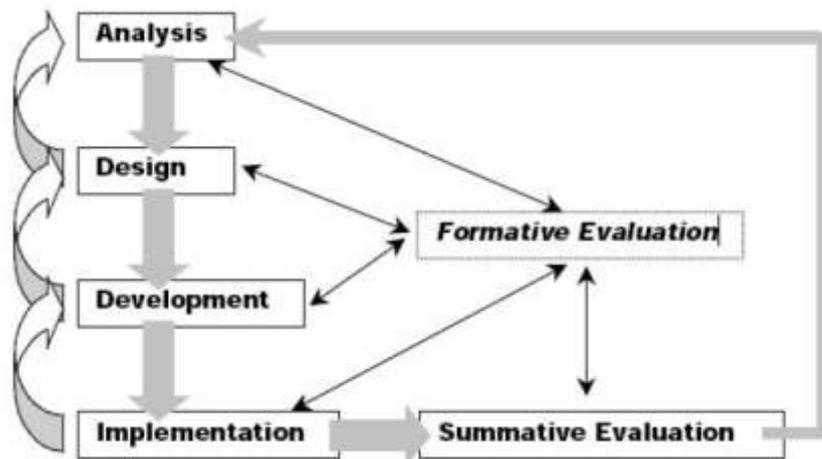
From the three stages of the Investigation group, Slavin (2005) and Sharan & Sharan; Bennett et al., (1991) they both proposed six stages of the Group Investigation strategy and almost the same in explaining the sequence of the 6 stages. While Nurhadi (2005) proposed 5 stages in implementing Group Investigation strategy without evaluation stage.

### **2.3 Developing Materials**

Materials are very important to help teachers in the teaching-learning process. The usefulness of the material is as for conveying the information to be learned.

ESP teachers have to plan the course, select and prepare the material based on the students' needs. Richards and Rodgers (1986) suggest that without syllabus, instructional materials can provide the content which in detailed specifications. The materials can be delivered through a variety of media. Based on Tomlinson (1998) submits or informs the material not only through textbooks, but can be tapes, CDs, a video, a photocopied handout, a newspaper, a paragraph written on the blackboard.

To develop the material, researchers should observe the Instructional model of materials development according to the ADDIE model adapted from some experts such as Dick and Carey Model, Kemp Model, Borg and Gall model. According to Steven J. McGriff (2000), instructional design is a procedure in the development of materials such as analysis, design, development, implementation and evaluation of learning materials and activities. Richards & Lockart (1994) dan Gustafson & Branch (2002) almost the same stated that procedural instructional design will be able to lead the development of material to be more effective and efficient. ADDIE itself stands for Analysis, Design, Development, Implementation, and Evaluation (Steven J. McGriff, 2000).



*Figure 2.1: McGriff (2000) Instructional System Design*

The procedures to develop materials include the design, implementation, and evaluation of language teaching materials. Dick and Carey (1990) offer ten components of the system approach model they are identify an instructional goal,

conduct an instructional analysis, identify entry behavior and characteristics, write performance objectives, develop and select instructional materials, design and conduct the formative evaluation, revise instruction, and conduct summative evaluation.

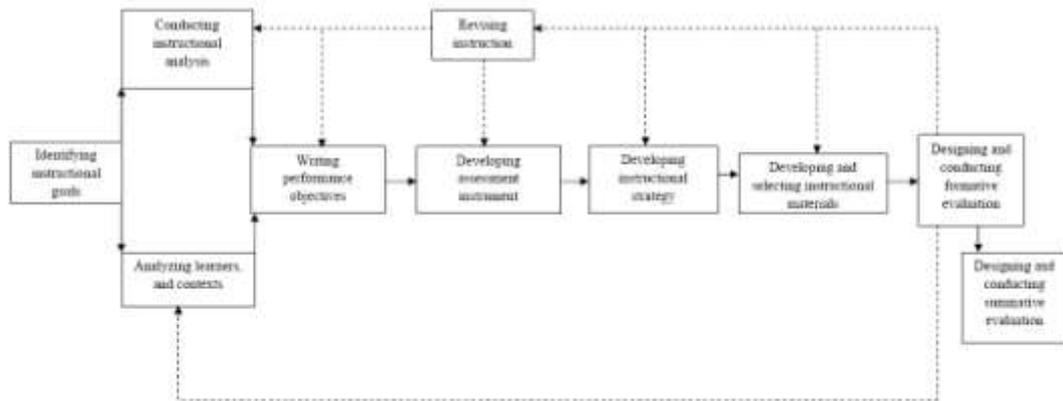


Figure 2.2: Dick & Carey Systems Approach Model (Dick, Carey et al, 2005)

The second instructional design in developing materials which formulated by Kemp Model according to Morrison, Ross et al. (2010) has nine elements those are :

1. Identification the need or the problem of the students,
2. Exploration of the students' characteristic during planning
3. Identification the subject content and analyze the component of the task that related to stated goals and purposes .
4. State instructional objectives for the learner.
5. Sequence the content within each instructional unit for logical learning.
6. Design instructional strategies so that each learner can master the objectives.
7. Plan the instructional message and delivery.
8. Develop evaluation instruments to assess.
9. Select resources to support instruction and learning activities.

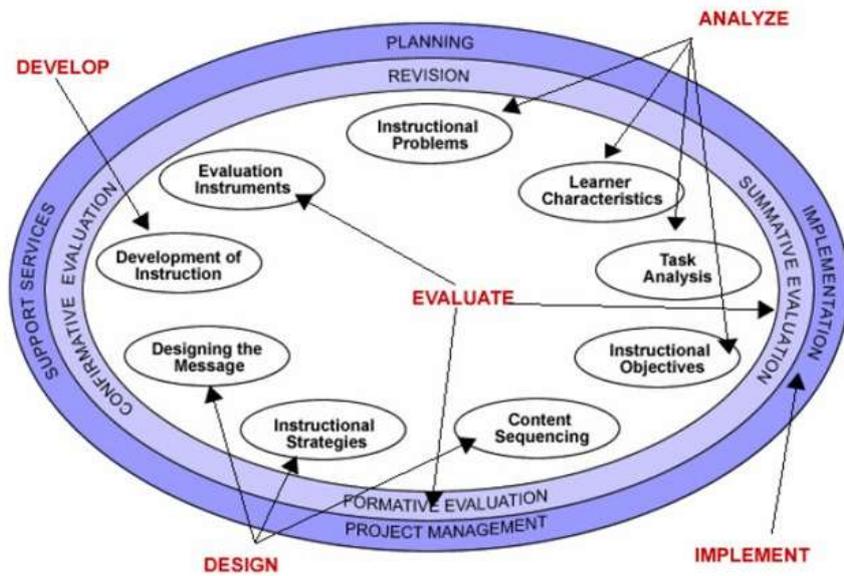


Figure 2.3: Kemp's Model

The third is Borg and Gall's model (1983) which formulate the steps to be taken in the development of the material is collect research and information, planning, develop preliminary form of product, preliminary field testing, revision of main product, test the main field, operational product revision, testing the operational field, revision of final product, and dissemination and implementation. The design of Borg and Gall's model which consist of ten major steps, as follows:

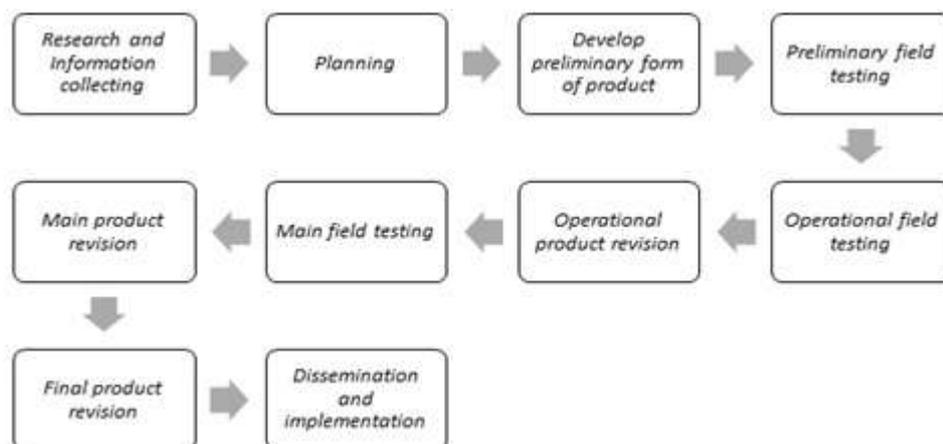


Figure 2.4: Borg and Gall's model (1983)

By referring to the steps of making materials, the creator of materials will be easy in developing materials that really suitable for what students need in the learning process. According to the three models above, the researcher attempts to adapt the ADDIE model with some changes. The steps that used by the researcher in developing EAP materials are Analysis, Design, Development, Validation, Implementation, Evaluation and Final Product.

### **2.3.1 Analysis**

The most important phase in the process of developing materials is analysis (Aldoobie, 2015). The Analyze phase can be called as the foundation for all other instructional design's phases. Need analysis done before creating the plan, developing the material, or implementing. The output of analysis includes the instructional goals, and a list of tasks to be instructed in the materials. These outputs are the input of the design phase. According to Hutchinson & Waters, there are two types of needs that are target need and learning need.

#### **2.3.1.1 Target need**

According to Hutchinson and Waters (1987), Target needs consist of three factors: necessities, lacks and wants. Necessities are determined by the demands of the target situation or what the learner has to know in order to function effectively in the target situation. Lacks is the gap between what students already know about the materials and the necessities of learners (Hutchinson, Waters and Breen 1979). The researcher needs to know that so they can then decide which of the necessities the learner lacks. Moreover, the last factor is students' want, learners need to know what they want to be learned. From those factors, students will do some efforts to achieve their learning goals.

#### **2.3.1.2 Learning need**

Analyzing learning need is important in order to get more information about the students' need. Here are considering questions based on Hutchinson & Waters suggestion are: why are the learners taking the course?, How do the

learners learn?, what are sources available?, who are the learners? And When will the ESP course take place?. Those questions are needed to know what are the students' need in learning English, the situation for learning and so on.

### **2.3.2 Design**

As mentioned before, the output of need analysis phase is the input of design. The Design phase involves using the outputs from the Analysis phase to plan a strategy for developing the instruction. In this phase, instructional designers begin to create a framework and create the project in order to meet the goals which are identified in the analyze phase (McGriff, 2000). In this study, the researcher uses Group Investigation as a model for developing the EAP materials for Agriculture Department.

### **2.3.3 Development**

The purpose of this phase is to generate the lesson plans and lesson materials. In this phase, the instructional designers use Group Investigation as a model of the task. Group Investigation, based on some experts consist of six steps that are grouping, planning, investigating, organizing, presenting and evaluating. Those stages will include on the task to be instructed.

### **2.3.4 Validation**

This phase is aimed to measure the appropriateness of the product. This evaluation will involve experts in the process of checking and minimizing errors in the product. So in this case, the product will be much more reliable and valid.

### **2.3.5 Implementation**

The implementation phase is the actual application of the material that has been developed. In this phase there are three major steps that must be passed, they are train the instructors, prepare the participants, and organize the learning environment.

### **2.3.6 Evaluation**

The evaluation phase is aimed to measure the effectiveness and efficiency of the materials. The evaluation phase consists of two parts: formative and summative. Formative evaluation is present during the development or in other words, assessed in each stage of the ADDIE process. Summative evaluation is assessed at the end of the process. This evaluation is consists of tests designed for specific criterion-related referenced items and provides the opportunities for the users to give feedback.

### **2.3.7 Final Product**

After completing the evaluation phase by revising certain parts, the final product of this development is EAP materials based on the Group Investigation model for Agriculture Department.

## **2.4 Review of Related Study**

Many research studies have been conducted using Group Investigation strategy. The research conducted by Ahsanah (2015), the objectives of the research was to solve the students' problem in speaking English. The populations of this research were 10<sup>th</sup> grade students at SMAN 1 Paciran Lamongan. The result showed that there are positive effect to the students, they more independent, active and confident during speaking. There is also an improvement of students speaking skill which showed by students' good score of FSI level. So it can be concluded that Group Investigation technique is a good technique that can be implemented in teaching speaking to improve students speaking ability.

According to Karafkan (2015) was conducted the research which aim to investigate the effects of cooperative learning techniques that are Group Investigation (GI) and Cooperative Integrated Reading and Composition (CIRC) on Iranian EFL learners' reading comprehension in intermediate. The participants of the research were 207 male students, they studying at an intermediate level at ILI. The participants were divided into three groups that are one control group and two experimental groups. From the result of the research, it can be assumed that

CRIC technique is more effective than GI technique in increasing students' reading comprehension.

Another research was conducted by Sangadji (2016) to describe the implementation of group investigation model in improving students learning achievement of the vocational school in Indonesia. The Subjects were first year students of Sales Skills Program at the Vocational School in Malang Indonesia. Group Investigation implemented in economic training subject. From the result showed that after the implementation of group investigation model, the students learning achievement of economic training subject increased where pretest gained an average of 49.83, in the posttest cycle 1 increase of 25.87% which gained an average of 62.72, while in the post-test cycle 2 increase of 27.20% gained an average 79.78. From the result of the summary, it can be stated that this model can improve students learning achievement.

Based on Zulyadaini and Yamin (2017) was conducted the R and D research to describe the development of Student Worksheets Group Investigation Based on Similarity and Congruence for the 9th Grade Students. Students have difficulty in understanding some Mathematics material especially on similarity and congruence. This is due to a lack of student understanding of the concept. Based on the results obtained from product testing such as data assessment of student worksheets by experts and students' responses, it can be concluded that the worksheets developed Group Investigation based have met the validity and practicality criteria.

The researcher, Chairunnisa (2016) was conducted the research in order to enhance students' critical thinking skill by implementation of Group Investigation. The strategy was to taught in second semester students of Educational Program at Universit of Muhammadiyah Prof. Dr. Hamka, Jakarta. This study was Classroom Action Research involved 19 students which consist of 5 males and 14 females students. The purpose of the research is to increase students conceptual achievement. The researcher was conducted three cycles to implement this strategy. The result of the score of the test was increasing in all

cycles. It can be concluded that Group Investigation strategy enhances students' critical thinking skill.

The research conducted by Yulita (2016), the objectives of the research was to produce a new course book was designed by using task-based approaches. The populations of this research were semester II students of Food Crops study Program at Politani. The result showed that the task-based course book was practically used by semester 2 students of Food Crop study program. High and low level of students agree that the book is interesting, easy to be used, and easy to get. So it can be concluded that task-based course book was practically used by semester 2 students of Food Crop study program in Politani.

According to Mulyadi and Prasetyani (2017) was conducted the research in developing English materials for Nursing integrated with task-based language teaching and soft skill. The aims of the research is to find out English for Nursing Materials, developed English for Nursing Materials integrated with Task-based Approach and soft skill, to know the effectiveness of implementation of developed English for Nursing Materials. The participants of the research were fourth semester students of Nursing Faculty of Nursing and Health Sciences at University of Muhammadiyah Semarang which consist of 75 students. From the result of the research, it can be assumed that English for Nursing Materials that developed were valid which proved with validation mean of score based on the scoring rubric was include the excellent and good category. And also the book was effectiveness which proved by students' achievement score that is 79. In addition, the book was practical because 80% of students enjoy when they use English for Nursing Materials in learning English.

Based on the previous study there are similarities in the level of implementation. Ahsanah (2015) and Sangadji (2016) conducted the research in implementing Group Investigation at Sennoir High School students. Basically, the purpose of each research is almost the same that is the implementation of Group Investigation to improve students skill. Different from other, Zulyadaini and Yamin (2017) focus on developing students' worksheet based on Group Investigation model. Meanwhile, Yulita (2016) and Mulyadi and Prasetyani

(2017) conducted the R and D research in University students. Basically, the purpose of each research are almost the same that is to design task-based ESP materials. The researcher will conduct another research using Group Investigation Strategy as the model activity in developing EAP materials for Agriculture students of University of Muhammadiyah Gresik.