

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter will discuss about literature review and review of related study. In literature review the researcher describes some theories that related to the ESP and inquiry-based learning.

2.1 English for Specific Purpose

English for specific purpose (ESP) is an English course design that is intended because it is needed for special needs such as business etc. students know what they need to learn English language (Hutchingson & Waters: 1987). Students knows the reason they are learning English to meet the needs they need. Similarly, according to Paltridge & Starfield, (2013) the content and the aims of ESP is a course that oriented to the specific needs of the learner. ESP is required because it starts from the second world war in 1945. Because the economic power of United States this makes English into an international language in the field of technology and commerce. It makes the English language an international language and create a new generation in learning English language, such as business woman or man who want to sell their product, meeting with customer, or read the book instruction manual, for student that read the textbook or journal that usually available in English.

ESP focuses on what kind of circumstances students need English, where they need it and the reasons for learner learning for study or workplace contexts (Basturkment: 2010) .In ESP, the courses are designed based on what they need. The English course is designed based on the needs and their interest will make the course more quickly because students feel motivated to follow the course. Usually within the ESP course students do not feel interested in English language or culture but as a student.

Learner-centred is where students need and goal are of supreme value. Learner-centred is common in the ESP class. While in General English become the language-centered and focus on learning language.

In ESP there are sub-branches like English for Academic Purposes (EAP) intended for work or training, English for Occupational Purposes (EOP), English for Professional Purposes (EPP) designated for occupational purpose or vocational purpose.

2.1.1 English for Academic Purpose

EAP is a sub-branches from ESP that is prescribed for academic purpose. English for Academic purposes is usually applied to the university level. Teaching English as second language or foreign language in academic setting or for university level is EAP (Hyland & Hamp-Lyons, 2002). English for Academic Purpose is a course design for students in university level that from non English Department (Paltridge & Starfield, 2013). EAP also focused on kind of text that students might encounter and the lexical (Benesch, 2008). English for Academic Purpose is a course that consider teaching English for perform the academic task (Paltridge & Starfield, 2013). Students learn English with the purpose to perform academic task. They need to know the support material like journals or books that are available in English language. EAP is covering the language of the language. As a student studying at the university level, students have to read a textbook or journal and write the research article in English language. It makes students need English language as a bridge to finish their academic task.

2.2 Developing Materials

Developing the material also has the rule to make the material. In developing materials, it usually uses authentic text and task Basturkmen (2010 : 62). One of the characteristic of ESP is with authentic text and also authentic task. The definition of authentic is the text and task that discusses the desired needs. For example, for

Agriculture department, the text used is text related to Agriculture, such as texts on organic planting systems, or herbs and spices. The same is true for tasks, tasks that are created should be tasks that discuss about Agriculture, such as the task of explaining how the system of organic and inorganic planting. But there are problems that may be faced, namely, difficult to find authentic text Basturkmen (2010 : 62). Sometimes the content contained in the text does not match the subject being taught.

In the development of materials, we need instructional design as the stage that we will pass to develop the material. Instructional design is a systematic process used to assist in the process of developing materials effectively and efficiently (Aldoobie, 2015) .One of the most commonly used instructional designs or commonly used in the material development process is ADDIE

ADDIE model make learning process become effective and valuable skill for the learners (McGriff, 2000). In ADDIE model there are 5 steps to develop the material.

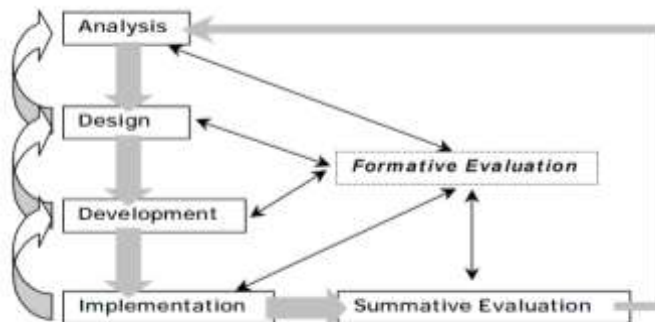


Figure 2.1 McGriff (2000). *Instructional System Design*.

Second design is Dick and Carey model. The model was published in 1987 by Walter Dick and Lou Carey. In this model the system not start from analysis but start from created, to know the need of instruction of the problem to be solved by using new skill.

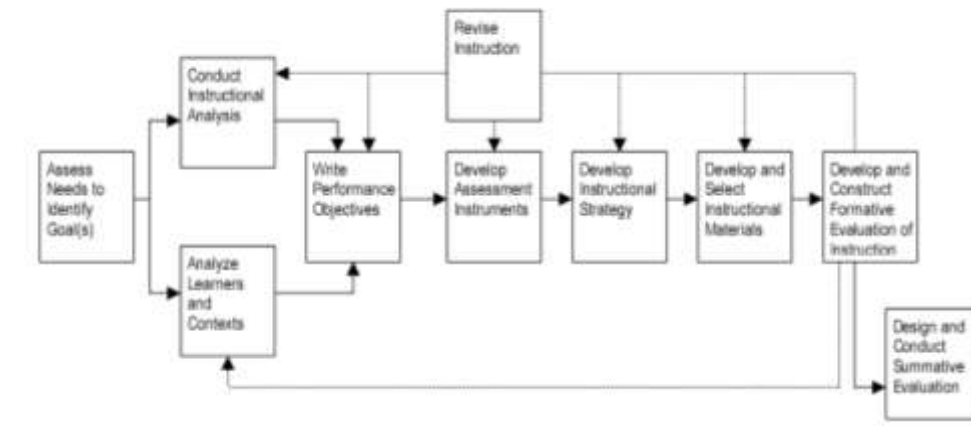


Figure 2.2 Dick and Carey Model

According to two model above, researcher choose ADDIE model to develop the instruction that matching with the condition. Because the researcher doing the analysis, design, development, implementation and evaluation, so the researcher choose ADDIE model

2.2.1 ADDIE Model

In ADDIE model there are 5 steps to develop the material (Analysis, design, development, implementation, evaluation)

2.2.1.1 Analysis

Before doing in the next step, we must analyze the needs of students in the teacher learning process to achieve the goals to be achieved by students according to their desires (Aldoobie, 2015) .In the analysis phase we can analyze the learner or we need to know the needs and problems of the students. Analysis of instructional goals in the analysis phase is useful to know what the students want in following the learning process so as to know the specific goal that will be achieved. Further instructional analysis is to record in detail and important things that we need. And developing learning objectives by determining what will be in the students can after the course, what skills they get.

2.2.1.1.1 Need Analysis

In developing the material we need do something for knowing the students need in the class. ESP identifies what the group of learner needs, Basturkmen (2010 : 17). Need analysis is an activity in which to identify the learner need to develop the course. All courses are based on need analysis of student needs, Hutchingson & Water (1987: 53). Based on the analysis done, the teachers and students know what they need so as to generate a positive impact for the students, Hutchingson & Water (1987: 53). Asses the learner can also be done at the end of the course based on the need analysis performed.

Need analysis is an activity that must be done before starting the course. With need analysis is the beginning of activity before starting makes course material. Course materials are based on the results obtained from need analysis. The answer can from the need analysis may vary - different according to the needs of students.

2.2.1.1.1.1 Target Need

Target need is what students need to practice in the target situation. In the target need there are 3 terms that can be seen to determine the target need.

Hutchingson & Water (1987: 55) mention 3 target needs in doing need analysis, including:

1. Necessities are needs based on the situation of the learner. So what they need from the course based on their situation.
2. Lacks is an activity where it will be known what the learner knows and what the learner does not know yet.
3. Wants are what they want to accomplish from following the course.

2.2.1.1.1.2 Learning Need

What students need in learning English in an EAP class. Creating a learning process in accordance with the students in English learning, we also need to know in order to achieve the goals of the needs of students in learning English. such as the use of text that is not too long because students have received long text reading such as

reports in the office so as to make them become uninspired if getting long text back in the class EAP (Hutchinson & Waters, 1987)

2.2.1.2 Design

In this stage we are thinking how to facilitate learning with effective instruction in the learning process that we given (Aldoobie, 2015) .Researchers create a book design that will be created to fit the needs of students and learning to be effective. The research uses Inquiry-based Learning (IBL) strategy to develop the activities of the book.

2.2.1.3 Development

In At this stage, we can make effective instruction and match the students' needs and student interaction with the material we have created (Aldoobie, 2015) .We can make instruction in accordance with what is needed by students so that the learning process becomes effective and in accordance with the learning objectives. In addition we also create a media or supporting documentation that can be used in the learning process (McGriff, 2000)

2.2.1.4 Implementation

In this stage we make our previous plan into an action (Aldoobie, 2015) .At this stage we prepare students and the environment in the learning process so that instructions that have been blind can be implemented in accordance with the planned,

2.2.1.5 Evaluation

After the implementation phase, we perform the evaluation stage. At this stage we can evaluate when designing instructions or at the time after implementation (McGriff, 2000) .With evaluation phases we can improve instructions that have been made before the final product, in addition we can also measure the level of effectiveness of instructions that have been made.

2.2.1.6 Final Product

The final product is in the form of developing materials in EAP class application for Agriculture Department students. The form of final product is book

consist of productive and receptive skill. The book for Agriculture Department is using Inquiry-Based Learning as approach.

2.3 Constructivism

Constructivism is an approach that makes students connects their prior knowledge with new information together. Students use their background knowledge to help them understand new information (Bada & Olusegun, 2015). Constructivism is learning theory that found in Psychology. Constructivism make the students learn and get the knowledge. Students get the knowledge from their learning experience (Bada & Olusegun, 2015). The students cannot passive in the learning process, their get the new information through the learner participation in learning process. Students can do the learning process in social context, like the interaction with their group, pair and other members (Sharma & Chawla, 2014).

The role of the teacher in constructivism approach is a facilitator in learning process. (Sharma & Chawla, 2014). In constructivism, there is Social Constructivism. Social constructivism make the students become have interaction with their friends or with their environment. Social constructivism emphasizes to the social context and makes the students share their idea or their understanding related with the topic (Kalpana, 2014). Inquiry-based learning is approach based on social constructivism (Walker & Shore, 2015). Inquiry-based learning makes the students interaction with their friend and also their environment.

2.3.1 Inquiry-based Learning

Inquiry-based learning is a learning process in which students play a prominent role in learning or can be said student-centred. Inquiry-based Learning not only make student listen what the teacher say or just make a report but more than that (Parr & Edwards, 2004). Inquiry-based learning puts students' questions, observations and ideas in the learning process. In the learning process the teacher or educator acts as a facilitator. In the process of learning with inquiry-based learning, teachers become facilitators for students in the learning environment (Nuangcalerm, 2014).

By using inquiry-based learning students conduct discussions to solve existing instructions. Inquiry-based learning enables students to become independent in learning without waiting for the teacher to give material to students or feed the material to students without students searching independently of the material. It makes students become more responsible for their own learning.

2.3.1.1 Inquiry-based Learning Cycle

By using inquiry-based learning lesson learned less learn more, teachers only as facilitators and students who have a prominent role in the learning process. In using inquiry-based learning can be described with five stages: questioning, defining term, acting, discussing, and summarizing (Nuangcalerm, 2014).

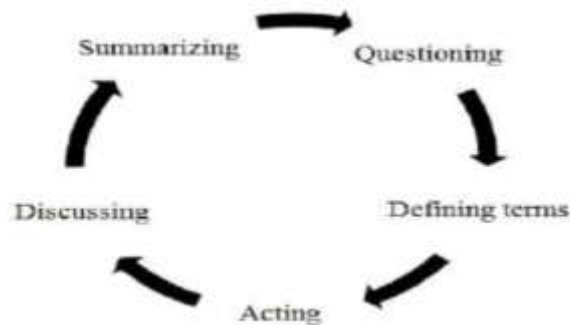


Figure 2.4 Nuangcalerm (2014). *Inquiry-based Learning in China.*

a. Questioning

In this cycle, start with questioning in learning process. With the question students can start to discuss with their group or peer. Students start to discuss and make the contact with their prior knowledge and problem solving (Nuangcalerm, 2014).

b. Defining Term

In this stage, students and teachers make commitments on how to solve problems to get the right answers

c. Acting

Students are free to express their opinions and ideas with their group or peer. In this stage, students can share their ideas, conduct discussions and communicate with their groups or peers (Nuangcalerm, 2014).

d. Discussing

Students discuss theories that match the questions or problems they have so that they can support their results and share what they know with their peer groups with effective communication.

e. Summarizing

Here the teacher plays a role to make inferences from what the student has done. So it can be a feedback for students in the process of learning.

Second cycle is from Bybbe et al (2006), inquiry-based learning has 5 cycle learning that it call 5E. 5E include Engage, Exploration, Elaboration and Evaluation.

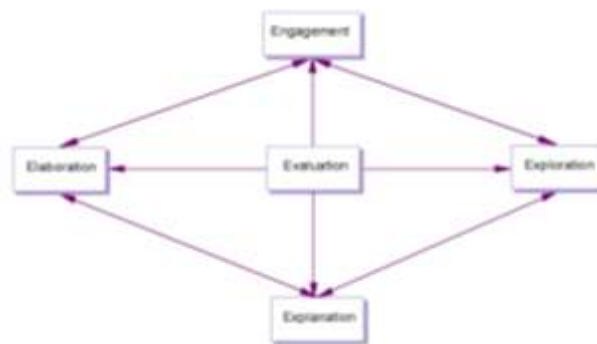


Figure 2.5 Duran & Duran (2004). *The 5E Instructional Model: A Learning Cycle Approach for Inquiry-Based Science Teaching.*

In 5E cycle, the first step is teacher builds connection with students' prior knowledge and students' present knowledge. After that students are do observation question, and students explain about what they are ready known from exploration phase. Next, students can share their information and idea and the last is evaluating the students understanding.

According to two instructional above, researcher choose 5E instructional to learning process that appropriate with this research.

2.3.1.1.1 5E Learning Cycle

In 5E instructional model there are Engagement, Exploration, Explanation, Elaboration and Evaluation.

1. Engagement

In engagement phase, teacher builds the students connection between their prior and present knowledge (Duran & Duran, 2004). With students prior knowledge its make students become easy to engage the new concept. Teacher can give short activities or open questioning to interest students to new concept.

2. Exploration

In this phase, teacher becomes facilitator for students. Students may observe, investigating or questioning (Duran & Duran, 2004). In this phase is students-centred. Students using prior knowledge to help students doing the activities in exploration phase (Bybee, et al., 2006)

3. Explanation

In this phase, student can explain their understanding or idea about the problem that given. After students do the explanation and their idea, teacher can explain directly to avoid misconception. So students get right information.

4. Elaboration

In Elaboration phase, student can measure their understanding with their pair or group. Students can understanding deeply about the concept which use in learning process (Duran & Duran, 2004). Students can do extra investigation or sharing information and idea.

5. Evaluation

Teacher can assess with formal assessment or informal assessment (Duran & Duran, 2004). Teacher can assess student from performance-based, portfolio, quiz or exam.

2.3.2.1 Type of Inquiry-based Learning

Inside inquiry-based Learning there are several types. Staver and Bay (1987) mentioned 3 types of inquiry-based learning such as structured inquiry, guided inquiry and open inquiry.

1. Structured inquiry

In structured inquiry, the teacher gives problems to the students and keeps students looking

2. Guided Inquiry

The teacher gives questions to the students so that the students conduct a direct investigation

3. Open Inquiry

Students independently formulate questions and conduct investigations

2.4 Previous Study

The researcher related this study with the previous researches in order to avoid replication. The first previous study, Widowati et al (2017), the researcher Develop the Science Material with Authentic Inquiry Learning Approach to Improve Problem Solving and Scientific Attitude for students of junior high school VII and VIII grade in Yogyakarta. From the research, the material that uses inquiry-based learning become a good material and appropriate to use the material in learning process. Beside that can improve the students' problem solving in learning process.

Inquiry learning is satisfy and proper for develop the learning materials. Like the research from Mayasari et al (2018) with title The Development of Inquiry Learning Materials to Complete Content Life System Organization in Junior High School Students. The research shows inquiry learning materials can achieve the students' good score. The subject of the research is from Junior High School 4 Lamongan at VII grade. The researcher develops the materials on life system

organization. The activities and students responses very well in learning process using inquiry learning material development.

Agriculture teacher perceptions about integrated science and use Inquiry-based Learning is very good for teaching in Agriculture Education. The teacher more prepared to teach in Agriculture Education. Like in research from Washburn & Myers (2010) with title Agriculture Teacher Perceptions of Preparation to Integrate Science and Their Current Use of Inquiry Based Learning and subject of the research are 217 Agriculture teacher in Florida.

Inquiry-based learning not only can implement for junior high school students but also for students of university. Bayram et al (2013) has a research about students motivation using inquiry-based learning. The subjects of the research are first-grade students attending the Faculty of Education at Hacettepe University. From the research, inquiry-based learning can improve the motivation of the student in learning process.

Inquiry-based learning also can achieve high score for the student. Abid (2014) research the effect of inquiry-based learning in students assessment. The subjects of this research are 40 students at fifth grade. The researcher use pre-test and post-test for get the result of the research. And the result of the research is inquiry-based learning can achieve the student high score.

Beside that, inquiry-based learning also has significance effect to build the students critical thinking. Duran & Dokme (2016) conduct the research about inquiry-based learning in students critical thinking with the subject 90 students from 6th grade. And the result is student can think critically because the activities in inquiry-based learning that make the students discussion with their group or their pair.

From the previous researcher, we can know that Inquiry-based learning has positive effect for make the material become more variation. Inquiry-based learning makes the students become more active in their own learning. And it's appropriate with student of Agriculture Department in EAP class. Besides that, Inquiry-Based

Learning make teacher prepared well in teaching process. The difference between my research and previous research is about the developing materials English for Specific Purposes for Agriculture Department using Inquiry-based learning. The subjects of this research are students of Agriculture Department who join in ESP class at University of Muhammadiyah Gresik.