CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

This research study is categorized as Research and Development (R & D) research. Educational reseach and development is called as R & D it is a process used to develop and validate educational products (Borg and Gall, 1983:772) . The products not only material object such as instructional films, textbooks, and so on but also include producers and processes, such as method of teaching and organizing instruction. It is important to analyze the need and validate the effectiveness of product in order to produce the product that can give a good contribution in educational field.

The researcher tries to develop the English for Specific Purposes module which can be applied in XI grade of Multimedia department. The product will be in the form of ESP module which is used as reference to improve the students' ability and competent in English. The module develop for Multimedia students of SMK NU 1 Gresik.

One of instructional development model is ADDIE model, that is Analysis, Design, Development, Implementation and Evaluation.
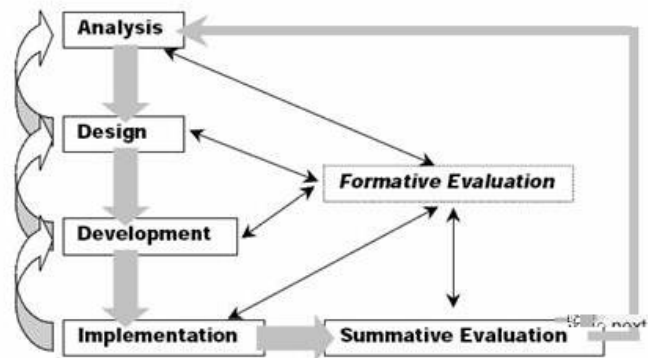

Figure 3.1 Steven J. McGriff's ADDIE Model
(http://arcmit01.uncw.edu/ritchiep/dom_des.html)

From the steps of Steven J. McGriff's ADDIE model, the researcher modifies the steps to conduct the research with adding some expert validations steps and revision step based on Candra Hadi Asmara, 2012. The researcher chooses two teachers from SMK NU 1 Gresik as the expert validation in this study. The modified steps are displayed in this chart:
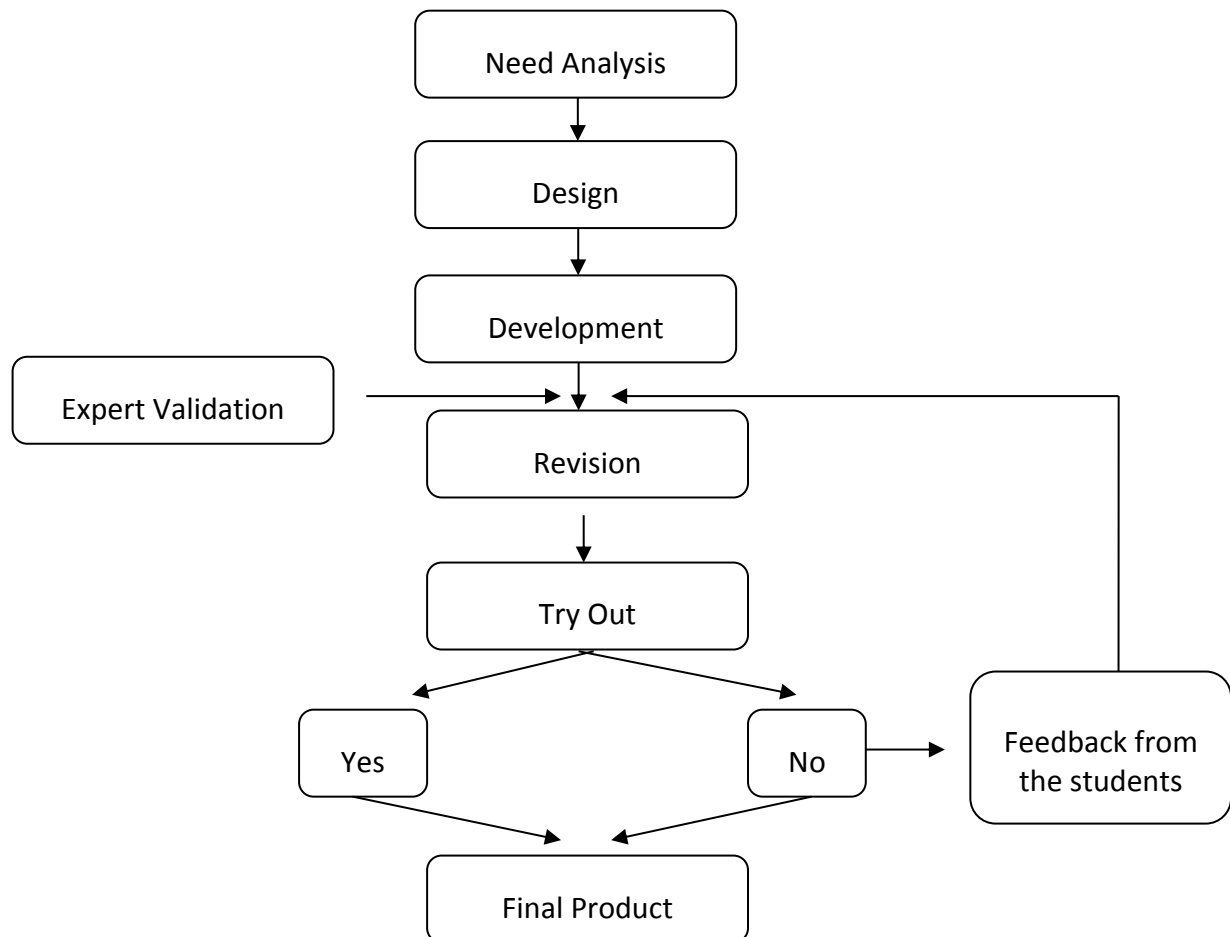
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                    ┌─────────────────────┐
                    │    Need Analysis    │
                    └─────────────────────┘
                              │
                    ┌─────────────────────┐
                    │       Design        │
                    └─────────────────────┘
                              │
                    ┌─────────────────────┐
                    │     Development     │
                    └─────────────────────┘
                              │
┌──────────────────┐ ┌─────────────────────┐
│ Expert Validation│→│      Revision       │
└──────────────────┘ └─────────────────────┘
                              │
                    ┌─────────────────────┐
                    │       Try Out       │
                    └─────────────────────┘
                       ↙           ↘
              ┌────────┐         ┌────────┐      ┌──────────────┐
              │  Yes   │         │   No   │ →    │ Feedback from│
              └────────┘         └────────┘      │ the students │
                       ↘           ↙             └──────────────┘
                    ┌─────────────────────┐
                    │    Final Product    │
                    └─────────────────────┘
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Figure 3.2 Modified ADDIE Model by Candra Hadi Asmara, 2012

This model of research will use in this development of study; it will be explaint in the procedure of Developing ESP Module for Multimedia students of SMK NU Gresik

3.2 The Instruments of the Study

The instruments to develop ESP module for multimedia study program, they are:

1. Interview   : The researcher interviewed the teacher of English language at SMK NU 1 Gresik to get information, what is their target and learning needs in English for Multimedia.

2. Validity Checklist : The validity checklist is given to the experts, they will comment and give score toward ESP module for Multimedia.

3. Questionnaire   : The researcher gives questionnaire to get deeper information regarding what their target and learning needs. Further, the researcher also gives questionnaire after conducting tryout to the students to know the response of the students toward the module that has been developed.

3.3 The Procedure of Developing ESP Module

There are some procedures of developing ESP module that is need analysis, target needs, learning needs, design instruction, developing module, expert validation, development of validation, tryout the material, revision and the last is final product that will be explained.

3.3.1   Need Analysis

Need analysis is an important thing that should be done in language course, as it will give ideas on how to design the language teaching and learning. Based on Hutchinson and Waters (1987), need analysis should include in syllabus. According to Songhori (2007), need analysis was essential in language course, it was for specific purposes to design and carry out the course. Need analysis was the process to discover the meeds of particular group of people (Titcomb;2000).

In this step, the researcher wants to interview the teacher and get authentic data observation to investigate the students need of Multimedia in English language. There are two stages from need analysis they are; to know the target needs and learning needs to make the material suitable with the needs and aim of the study

3.3.1.1 Target Needs

The target needs is one of the important factor that influence the development of ESP material. The definition of the target need, according to Hutchinson and Waters (1987) the target need is what the learners needs in target situation. It means that the target need should know the first before we create a course design and develop ESP material.

In target needs phase, Hutchinson Waters (1987) stated that to analyze the target needs of the students they are; necessities, lack and wants which can be explaint as follow:

a. Necessities

The necessities are the type needed to determine by the demands of the target situation, what the learner should know in order to function effectively in target situation.

b. Lack

The terms of lack was defined as the abilities and competence which were not possessed by someone to gain the good performance in the situation targeted.

Supporting the statement above, lack is useful as a reference in deciding what will be needed by the participants on the materials to be developed (Hutchinson, Waters and Breen ;1979).

c. Wants

Wants defined as the learners' thought about what they want to know. The teacher need to find out what the learners to obtain from the teaching and learning process. If the lack of students have been found, then it will be easier for teachers to devise appropriate language courses for students.

In conducting the question to Multimedia members, the researcher has asked Fifteen questions and here is the result: The first question was about the goal of learning English for Multimedia. Eighteen (51%) participants answered to finish one of the lessons in school. Nine (26%) participants answered they learn English to build their English ability in Multimedia. Eight (23%) participants answered they learn English to get a Job. To check the validity of the first question the researcher asked in tenth questions about why they learn English. Twenty-one (60%) participants answered the English language used for every occupation. Eight (23%) participants occupation answered they need English to apply for a job. Six (17%) participants answered study English to finish their lesson.

The second question was about the average of the students when they are learning English. Twenty-nine (83%) participants answered 90 minutes. Six (17%) participants answered unlimited time. The third question was about finding English is a language that will be career

support of someone. Thirdty (85%) participants answered very agreeing. Five (14%) participants answered agreeing. To check the validity of the third question the researcher asked in ninth questions about the importance of learning English. Twenty-six (74%) participants answered English is a language that they should mastered. Nine (26%) participants answered they learn English for work.

The fourth question was about how they use English. Twenty-six (74%) all the answer is right. Nine (26%) participants answered answered using English for reading articles about Multimedia. The fifth question was about English what they learn. Twenty-two (63%) participants answered English for multimedia. Eight (23%) participants answered general English. Five (14%) participants answered both of English general and English for multimedia.

The sixth question was about what they want to learn English in Multimedia. Twenty-seven (77%) participants answered they want to convey about multimedia for public. Eight (23%) participants answered they want to get a job in a good position. To check the validity of the sixth question the researcher asked in seven questions about what they want to learn English in Multimedia. Thirty (86%) participants answered they need to be able to finish in the multimedia report. 5 (14%) participants answered they need English for preparation going aboard.

The eight questions were about the statement of the using English in globalization. Twenty-eight (80%) participants answered very agreeing. Seven (20%) participants answered agreeing. The eleventh question was about material input for reading that students need. Sixteen (46%)

participants answered text in specific genres like descriptive, narrative and recount. Fourteen (40%) participants answered text about multimedia. Five (14%) participants answered text with a picture. To check the validity of the eleventh question the researcher asked in fifteen questions about agreeing to text in a specific genre for multimedia. Twenty-nine (83%) participants answered very agreeing. Six (17%) participants answered agreeing.

The twelve questions were about activities in reading. Twenty (57%) participants answered reading with text and find information. Ten (29%) participants answered reading with text and find the main idea. Five (14%) participants answered reading the text and find a synonym in the text.

The thirteen question was about the material input for writing that students need. Twenty-three (66%) participants answered explanation of the generic structure. Twelve (34%) participants answered model or examples of text. The fourteen questions were about activities in writing. Nineteen (54%) participants answered compose the similar text from the example with their own sentence. Fifteen (43%) participants answered compose a sentence into a paragraph in correctly. One (3%) participants answered compose dialog.

The researcher asks ten questions to know the target needs of Multimedia students. The first question was about the goal of learning English for Multimedia students. He answered the goal of learning English is to finish their lesson in school and students can build their English ability in Multimedia also students learn English to already for

work. The second question was about when the Multimedia students used English. He answered the Multimedia students used English in the classroom.

The third question was about what the material needs of a Multimedia study program. He answered the material should appropriate with Multimedia major it will be like knowing using Multimedia software in English text. The fourth question was about the ability of Multimedia students. He answered the ability of Multimedia students was in advance level because of they now in XI grade.

The fifth question was about the method that teacher used in the class. He answered used the teacher-centered method, give a question's answer, sometimes in a grub discussion and homework. The sixth question was about needing of English topics in Multimedia students. He answered it should kind of Multimedia material such as knowing the benefits of Multimedia, kinds of tools in Multimedia etc.

The seventh question was about the difficulties in teaching English for reading skills. He answered the difficulties when teaching reading skills were the students sometimes can understand the implicit information from the text. The ninth question was about what is the most difficult of students in learning reading. He answered students sometimes confused to understand the meaning of the text.

The tenth question was about the difficulties in teaching English for writing skills. He answered the difficulties when teaching writing skills were the students cannot compose paragraphs incorrectly because they forget how to compose paragraphs in specific genres. To check the

validity of the tenth question, the researcher gives the eleventh question there was about what is the most difficult of students in learning writing. He answered students sometimes confused to arrange paragraph in specific genres.

3.3.1.2 Learning Needs

Learning need based on Mohammadi and Mousavi (2013) was about what the learners have to carry out in order to learn in the course. In learning need, the researcher wants to analyze the needs of Multimedia students to know their needs on learning ESP for multimedia study program. The subject to whom the researcher conducts questionaire are students in XI grade of multimedia study program. The researchers wants to know their target and learning needs for Multimedia study program. Moreover, the researcher also conducts interview to the English teacher as well to get deeper information regarding the needs of students in Multimedia study program at SMK NU 1 Gresik.

After conducting questionnaire and interviews, the researcher also analyzes documents which are related to the needs of the students. The documents which are going to be analyzed were books about Multimedia. So, the module that is going to be created can cover the material which is needed by the students of Multimedia study program at SMK NU 1 Gresik.

In conducting the questionnaire to Multimedia members, the researcher has asked twelve questions and here is the result: The first question was about the student's needs in English material for Multimedia study program. Thirteen (38%) participants answered kinds

of vocabulary for multimedia. Eight (23%) participants answered article or journal about multimedia. Ten (28%) participants answered how to make a business letter. Four (11%) participants answered the expression for communication with other people. To check the validity of the first question the researcher asked in seventh questions about the students agree or not when the Business letter was input in the ESP module. Twenty-five (71%) participants answered they are very agreeing. Eight (22%) participants answered agreeing. Two (6%) participants answered disagree.

The second question was about the activities that students like in the class. Six (17%) participants answered lecture method. Fifth (14%) participants answered discussion. Six (17%) participants answered the question and answer. Eight (23%) participants answered give an assignment and ten (28%) participants answered all of the activities is needed. To check the validity of the second question the researcher asked eight questions about the opinion of the teachers used in lecture method in teaching.

Twenty-five (71%) participants answered lecture method is one of the methods that make students less able to build their ability. Ten (28%) participants answered they like lecture method because they only need to focus and listen to the teacher.

The third question was about the English learning activities that students get in the class. Twenty (57%) participants answered they learning English inside the class with the teacher, book or worksheet. Eight (23%) participants answered them learning English in the outside

the class with the teacher, book or worksheet. Seven (20%) participants answered that they are learning English inside and outside the class with the teacher, book or worksheet. To check the validity of the third question the researcher asked in ninth questions about how they learn English. Twenty-four (68%) participants answered they learn English in the class with the teacher and a book. Eleven (31%) participants answered they never learn English outside the class.

The fourth question was about the media that the teacher used to learn English. Eighteen (51%) participants answered English book from school. Five (14%) participants answered from the internet. Twelve (34%) participants answered worksheet (LKS). To check the validity of the fourth question the researcher asked in eleventh questions about where they found English material for study. Twenty (57%) participants answered English book from school. Twelve (34%) participants answered from the worksheet. Three (8%) participants answered from the internet.

The fifth question was about the opinion of using English in globalization. Thirty-one (88%) participants answered English was used for all of the people and all about occupations. Four (11%) answered English was used only for some of the people and some occupations. To check the validity of the fifth question the researcher asked in twelve questions about who is entitled to use the English. Thirty (85%) participants answered all of the choices is right. Fifth participants (15%) answered multimedia worker.

The sixth question was about the time that usually they are learning English in the class. Thirty-five (100%) answered 90 minutes that they are usually learning English in the class. To check the validity of the tenth question was about when some of their friends were difficult to understand the material, what actually the teachers do in the class. Fifteen (43%) students answered the teacher continue the material and explain in the next meeting. Twelve (35%) students answered the teacher explain again in the class regardless the time. Eight (23%) participants answered continue the next material without explaining again because of the limit of the time.

The next step the researcher did interview in order to get deeper information about student's needs. The researcher did the interview with the English teacher. The researcher asks six questions to know the learning needs of Multimedia students. The first question was about what is the material that will be needed in English for Multimedia study program. He answered that students need English material that will be appropriate to Multimedia study programs like English for Multimedia. The second question was about what the activities when the teacher teaching English in the class for Multimedia students. He answered study inside the classroom with the book and worksheet. The third question was about the media that the teacher uses in the classroom. He answered, use book from the school, worksheet and sometimes from an internet.

The fourth question was about what the teacher thinks about English in the globalization era. He answered very important to studying English in globalization era because English is useful for competing with other people in another country. The fifth question was about, it is necessary or not give the material about Business Letter. He answered Business Letter is necessary for students in vocational high school, Multimedia students can already prepare for their job.

The sixth question was about the method that students use in the classroom. He answered using teacher center method, sometimes in a grub discussion and homework. The researcher gives eleventh questions for the teacher to get information in target need of the Multimedia students.

3.3.1.3 Need Analysis Result

Considering the result of an interview with an English teacher, the researcher found that the students need a guideline that consists of information or material about Multimedia in English that can support their major in the work field in their future. The research giving reading input by combining kinds of text such as read the text to find information, read the text to find mind idea, and read the text to find synonyms. For writing input, the researcher combines between explanation the generic structure and example of the text.

3.3.2 Design Instructional

After got the information about needs of the students, the resercher tried to make a syllabus based on the finding in the needs analysis step. Then, it will be continue by making the design of the module in form of draft. The module

consists of materials about Multimedia that they need. As a module, there is a user instruction and also preface or introduction of the module.

The reseacher will develop ESP module to help students in knowing English based on their study program. It is consisted of language skills such as reading and writing. The reason of using ESP development because it can be used as the reference of teaching English It is also increase students' motivation.

The researcher plan to make one main chapters of this book, "How to understand multimedia etymology". In this chapter, the information that is going to deliver is the general information of Multimedia study program. Before going to the matter of these chapters, the objetive of each chapter is provided to give the clear understanding about the purpose of why the students need to learn it. After the whole matters have been delivered, overall exercises are given to assess the understanding of the students after learning this chapter.

Meanwhile, answer key, and references will be available at the last part of the module. The answer key will make the students feel easy to learn about Multimedia with or without the teacher.

Following the step of identifying the needs of students who involve in this study, the researcher then designed the module that would be created based on the students' needs. Based on the result of an interview, the researcher made a syllabus to make clear that the material should be included in English module. **See appendix 3.** The syllabus was checker by the English teacher and Multimedia teachers. The English teacher give comments about the syllabus, the content of the syllabus was good enough. Make sure that the target is for XI Multimedia Students. Multimedia teacher, give the comments about the syllabus module English language is consistent with Basic Competence in the Multimedia in chapter one

students must know the basics of etomologi multimedia, in chapter two the productive multimedia where at Basic Competence students can operate the software program to edit bitmap graphics and vector contemporary identified and other features.

Based on the result of need analysis by interviewing the students, it was revealed that students needed information or material about multimedia in English. Based on the syllabus created previously and the result of need analysis, the researcher has made a draft of developing English material of Multimedia. **See appendix 4.**

According to the draft of developing English material of Multimedia, the writer planned three chapters in English material of Multimedia. The first chapter is, "How to understand multimedia etymology". It will tell how to understand multimedia etymology such as tools and functions Multimedia. In the next chapter "How to use multimedia programs" it will tell how to use multimedia programs, such as the use of Photoshop software. Then the third chapter "I'm ready for work" will tell the information about how to apply business letter and job interview.

3.3.3 Developing Module

The researcher developed the module in form of ESP material for Multimedia. The module will consist of reading that from Multimedia handbooks or jurnal articles, writing by analyzing the context, and also students create paragraph based on the topic. It help the students to build their comprehension.

As a module, this ESP module for multimedia consists of user instruction, preface or introduction of the module, the objective, explanation, excercises, answer key, and also references.

3.3.4 Expert Validation

After the ESP module is finish, it should be validated to the expert validation. The expert will get a checklist of courseware. There are two expert validations; the Multimedia teacher and the teachers of ESP in SMK NU 1 Gresik.

The experts give score and suggestion. It is to improve the product to be better than before. From the comment and score the researcher know what will be revised, add, improve or delete in ESP module.

3.3.5 Revision

The researcher revises the module if there are some lacks inside the Multimedia module based on the comments of the students. The revision also considers the suggestion from the experts. The parts that might be revised are the matter of the Multimedia which may not be proper in order to fulfill the necessities, cover the lacks, give the wants of all the students in Multimedia study program. If there is no part of the module need to be revised then this step is skipped and continued directly to the last stage of developing material that is final product.

3.3.6 Tryout the Module

This step is very important because the researcher wants to know the level of success of the product. It will be give for students of Multimedia. The researcher will show the ESP module to the students. This test will be conducted in class and use module to do the tryout. After students know all the content of ESP module and they will respond about the module. It is to know and check the implimentation of the module that it can be used as the media in learning or not.

3.3.7 Final Product

This is the last step of developing material in form of Multimedia module after the revision of the module is done. First page of the module is the cover of multimedia module, then followed by the user instruction, preface of the module and list of content. In first chapter "How to understand multimedia etymology" there is a list of the objectives of the module to give the clear understand to the students of why they learn this part. In this chapter, there will be the general information about multimedia. The next part is an overall exercise to assess the students' understand. Then, at the end of the multimedia module, answer key, and references are provided.