CHAPTER III
RESEARCH METHOD

In this chapter researcher presents the discussion about Model of Research and Development, Procedure of Research and Development, and Try-out of the Product.

A. Model of Research and Development

Based on identification research questions in chapter 1, this research belongs to research and development method. In this case, the researcher develops coursebook that hopes can help English learning process for office management students especially at *SMK PGRI 1 Tulungagung.*

In this study researcher used research and development method. There are several models in developing teaching media e.g. Hoge, et. al.,model, Brog & Gall model, Hannafin & Peck model, ADDIE model, Criswell model, CBI model.

In this research, the researcher developed prototype coursebook by applying the ADDIE model. Then, the prototype coursebook will be tested in English teaching and learning activities of Office Management students in the class X-MP 2 of SMK PGRI 1 Tulungagung.

The researcher reason to choose that model is because this model is appropriate to be applied in developing prototype of English writing coursebook. In addition, this model has simple steps and easy to use for the beginner teaching media developer and also for newcomer in Research.

B. Procedures of Research and Development

The research and development procedure used in this research uses the ADDIE model developed by Dick and Carry on Endang Mulyatiningsih (2011: 183), as follows:

Table 3.1 Addie's Model
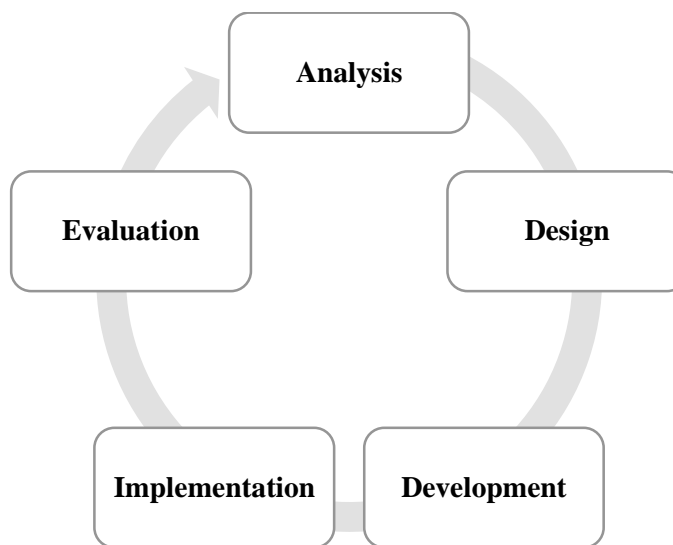
The development procedure in the picture above can be described as follows:

1. Analysis

The first step of Addie model is analysis. In the analysis phase, instructional problem is clarified, the instructional goal and objectives are established, and the learning environment and learner's existing knowledge and skills are identified. The researcher modified the analysis steps of Addie's model into three parts. That are: Interview, Observation, and Need Analysis.

At this stage, the main activity is to analyze the need to develop new learning models / methods. The purpose of the analysis phase is to collect various relevant information and data with the development of the coursebook prototype for the class X Office Management of SMK PGRI 1 Tulungagung. Information for this needs analysis comes from field studies and literature studies.

a. **Interview**

In interview, the researcher interviews the teacher about the characteristic of the students, the curriculum they use, their weaknesses, and everything about their motivation in learning. The researcher gives the questionnaire to the students about what they need (e. g. the topic that they want to study) as the observation part in need analysis. Just then, the researcher analyze the content of the existing material.

Interview is a dialogue that is done by the interviewer and the informant to obtain the certain information, (Arikunto, 1998: 231). Interview usually used by the researcher to find out the students background. For example, to know about their parents, education, their attitude, etc.

Interview that is used in this research is free interview/unguided interview. It is means that the researcher doesn't already have the answer, so people who interviewed free giving their opinions. In this method, the respondent will not realize that they are in interviewing. So the process of interview will be more relax.

The researcher has interviewed the English teacher of SMK PGRI 1 Tulungagung, Bardan, S. Pd. in 29 March 2019. Base on the interview with Mr. Bardan, S. Pd., the researcher develop prototype of English coursebook for office management students base on the curriculum of the regular school, because they also use the same curriculum with a regular school.

b. Need Analysis

Another analysis phase is need analysis. Need analysis is the logical starting point for the development of the language program which is responsive to the learner and learning needs (Brindley, 1989: 64). Crawford (in Richard&Renandya, 2002: 80), in addition, states "The language of the material use in develop the book should be realistic and authentic, so they reflects interests and students' need. By doing this need analysis the researcher sure that the final product will reflect the interests and needs of the students and doesn't require an adaptation anymore.

In analyzing what are the students of office management student need, the researcher does an observation. Observation is meant by an activity in focusing our attention of an object. Observation not only seeing but also feeling, in this case people usually said that observation is a direct research.

Observation can be done by doing a test, giving questionnaire, and audio or audio visual documentation. A test is usually does if the

observer wants to observe the psychological aspect. A questionnaire is given to respondent to observe some aspect that researcher wants to know. Meanwhile documentation is doing to record all phenomenon in that is happened the field.

Arikunto (1998: 147) states, there are two kinds of observation:

- Non systematically observation

    In this kind of observation, the observer doesn't use any instrument to conduct an observation.

- Systematically observation

    Systematically observation is done by the observer by using an instrument / observation guide.

In addition, Anderson (in Arikunto, 1998: 147) explained "An observation guide contains of a list of activity that may happen in the field". By this observation guide, the observer only has to give the possibility check on the right column. This kind of observation is also called as sign system.

In this step the researcher do an observation in order to know the office management students' need. The researcher uses systematically observation in the form questionnaires. A questionnaires are given to the student by the aim to get what's actually the students' need, what about their feeling about English and practical operating of available book during teaching learning process. Questionnaires are chosen because that instrument is

effective enough to help researcher to get any information from the students. Questionnaires also don"t waste much time and economic in the process.

The questionnaires are given to the 44 students of X MP2 class SMK PGRI 1 Tulungagung. Just then, the researcher analyzed the result of the answer, later this description analysis will help teacher to develop appropriate books for them. The items of the questionnaire are shown in appendix 6.

c. Content Analysis

The last procedure of analysis phase is content analysis. Content analysis is potentially one of the most important research techniques in the social sciences. Content analysis is a research methodology that examines words or phrases within a wide range of text. Content analysis focuses on analyzing and interpreting recorded material within its own context (Ary, tt: 27).

The resarcher analyze the content of the existing English book that use at SMK 1 PGRI Tulungagung for office management students. The researcher examines the weaknesses of content, or may something that need to develop from the book. This content analysis is the procedure to help the researcher develop the more appropriate English coursebook for office management students of SMK PGRI 1 Tulungagung.

2. Design

Next step of Addie model is design. Design phase deals with learning objectives, assessment instruments, exercises, content, subject matter analysis, lesson planning and media selection. The processes of material design in language teaching usually involve assessing the needs of learners in language program, developing goals and objectives, planning a syllabus, selecting teaching approaches and material, and deciding on assessment procedures and criteria. (Richard and Renandya, 2002:65).

So, the design phase should be systematic and specific. Systematic means a logical, orderly method of identifying, developing and evaluating a set of planned strategies targeted for attaining the project goals. Specific means each element of the instructional design plan needs to be executed with attention to details.

In this steps, the researcher reviews the result of interview the teacher, analysis of students' need, and content analysis of existing material. So, the researcher can decide what kinds of material that may appropriate for office management students of SMK GRI 1 Tulungagung.

The result of the interview shows that the curriculum of SMK PGRI 1 Tulungagung is the same as the regular school of senior high school (K13), so the researcher designs the book base of the K13 curriculum. The syllabus and standard competence that has modified by

the English teachers of SMK PGRI 1 Tulungagung are also as the reference of the researcher to design the book.

Need analysis and content analysis of existing material also become a guide to design the book. The result of need analysis and content analysis shows that the students want a more specific content especially for their office management study. They also wants the book with an enjoyable activity, with each activity is separated with the other, so the book will not become to make them bored.

3. Development

This is the main steps of Addie's model. This step is divided into five sub steps, they are: drafting, revising, validation (include expert validation and try out), revising, and final draft. Those five sub steps must done in ordery, because it is impossible if the researcher does a validation before the researcher did drafting.

In drafting, the researcher write down everything that may will be a content of the book. The table bellow shown the example of the activity that may use in the book.

Development phase is where the researcher creates and assembles the content assets that were created in the design phase. Later the project is reviewed and revised according to any feedback given.

In drafting, the researcher wrote down everything that may be a content of the book. For the content, the researcher used authentic

materials that available on English book, Office Management book, internet, etc

4. **Implementation**

The next steps of Addie's model is implementation. In this step, the material developer tries the half-done book in to school, usually many number of schools to examine the effectiveness of the book. This step will waste much of time, even for the expert. The half-done book is tried for a semester or a year. If there are weaknesses shown, the material developer revises the book, and that pattern will occur again until the material developer find the most appropriate book.

As represent in the review of literature in the previous chapter this step is for a very expert material developer. While the researcher is the beginner material developer it is quite impossible for the researcher to implement the product to the school. Because implementation is usually for a large numbers of school and it is need extra time and hard work to revise the material for many times. The researcher as the beginner of developing the material will just try the material out into Office Management class of SMK PGRI 1 Tulungagung.

5. **Evaluation**

Evaluation is the last step of Addie's model. In this step, the rearcher evaluates the material that the researcher has done and revises it by feedback from the students.

In this last step, the rearcher evaluates the material that the researcher has done and revises it by feedback from the students. The result of the try-out of the product is the result of the evaluation that later the researcher use to revise the product. The try-out and its result will be presented in the next chapter.

C. Try-out of the Product

Try-out of the product is done to collect data useful to evaluate the quality of the product of the research and development. In this part described design of the try-out, subject of the try-out, types of data, instruments(s) of data collection, and technique(s) of data analysis.

1. Design of the Try-Out

The try-out of the product in this study is field trial try-out. The students are invited to have teaching and learning English by using the media for about 3 hours of study. In the end of teaching learning process the students answer the questionnaire to see the expediency and quality of the product.

2. Subject of the Try-Out

The subject of this study in product validation was expert of English teaching media lecturer and English teacher of SMK PGRI 1 Tulungagung. Furthermore, the subject in trial field is consists of 44 office management students of X grade student.

3. Types of Data

The type of data from the result of that evaluation is both qualitative and quantitative. Qualitative and quantitative data are gotten from some evaluations, comments, and suggestion from expert of teaching media, expert of material, and also students evaluation about the product in the questioner instrument. Some comments from expert of teaching media and teaching material used to revise the design of product before the product is used in whole class. While the responds of students used to investigate the quality or attractiveness of the product when use in teaching and learning process.

4. Instrument of Data Collection

According to Sugiyono (2009:184) research instrument is a tool used to measure both natural and social phenomenon which is specifically observe. In other word, instrument is an auxiliary tool to help researcher to collect the data.

Then the instrument that used in this research was questionnaire. This questionnaire is used to evaluate the quality or attractiveness of this media by doing validation from expert of teaching material and also evaluation from X grade students.

This questionnaire was developed from criteria of teaching media evaluation based on some experts. Then, the resercher made the grille of questionnaire into some criteria, those were educational criteria, layout

criteria, and technical criteria. The questionnaires are written in Indonesia

to avoid misunderstanding between the researcher and the respondents.

Table 3.2. Score Criteria for media feasibility questionnaire

Criteria	Score
Very Good	5
Good	4
Fair	3
Poor	2
Very Poor	1

Table 3.3. Research Instrument Guidelines for Expert and Teacher

NO	Aspect	Indicator	Item
1	Presentation Aspect	a. Systematic	1
		b. Concept	1
		c. Motivation	1
		d. Table and Symbol	1
		e. Structure	1
		f. Example	1
2	Graphic Aspect	a. Size	1
		b. Table and Symbol	3
		c. Text	4
		d. Cover	1
3	Content Aspect	a. Curriculum	1
		b. Material	4
		c. Concept	1
		d. Example	1
		e. Picture and Table	1
		f. Logic	1
4	Literature Aspect	a. Grammar	1
		b. Text	1
		c. Table	1
		d. Sentence	2
	Total		30

Table 3.4. Research Instrument Guidelines for Students

NO	Aspect	Indicator	Item
1	Presentation Aspect	a. Font	1
		b. Material	2
		c. Concept	1
		d. Motivation	1

		e. Picture and Table	1
2	Graphic Aspect	a. Size	1
		b. Pages	1
		c. Picture and Table	1
		d. Design	1
		e. Colour	1
		f. Cover	1
3	Content Aspect	a. Curriculum	1
		b. Topic	1
		c. Theme	1
4	Literature Aspect	a. Words	1
		b. Language	2
		c. Sentence	1
		d. Order	1
Total			20

Source: Badan Standar Nasional Pendidikan (2014) with modification

5. Technique of Data Analysis

From the questionnaire validation above each item on it classified in 5 scale and each scale have a certain score, they are very good that will give score 5, good will give score 4, fair will give score 3, poor will give score 2, and very poor will give score 1. Furthermore the indicator category for each item called high (H) if the score greater-than or equal to 3 ($\geq$3) and called low (L) if the score less-than 3 (<3) (Alifah, 2013:32)

Finally those data will change into percentage of data, the formula will like follow:

Table 3.5. Percentage Formula

$$\text{Percentage (\%)} = \frac{score(n)}{scoreMaximal(N)} \ x \ 100\%$$

After that, the data transform into qualitative data with high percentage is 100% and low percentage is 0%. The next is the data will describe qualitatively. Range is maximal score minus minimal score, and the result is 100%, also large of interval (100% divided 5 scale) equal

20%.So, based on the count up above, range percentage and the qualitative category will see as follow:

Table 3.5. Range Percentage and Qualitative Criteria

Percentage	Category
81% < score <100%	Very good
61% < score < 80%	Good
41% < score < 60%	Fair
21% < score < 40%	Poor
0% < score < 20%	Very poor