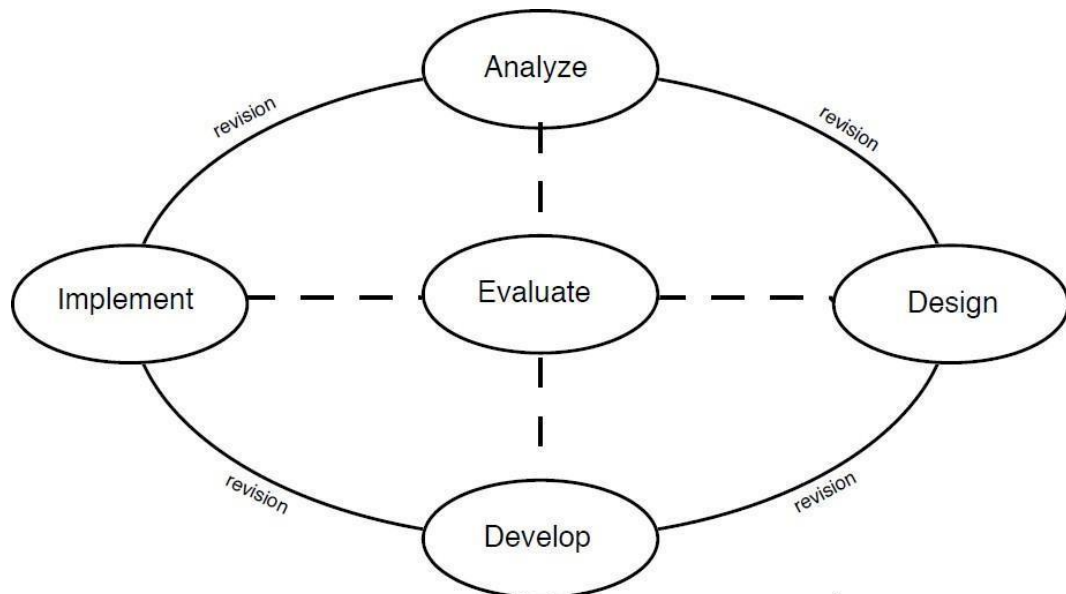


## CHAPTER III RESEARCH METHODOLOGY

### A. Form of Research

The researcher uses Research and Development research method in this study. Research and Development is a research method used to develop new products, and then try the effectiveness of these products (Sugiyono, 2020:418). According to Amali *et al* (2019), there are many types of research models, which can be used as a reference in research and development study. One of them is the ADDIE development model.

In this study, the researcher uses ADDIE study design developed by Dick and Carry (1996). According to Endang (2013:200) ADDIE is used for designing learning systems. ADDIE model using five stages of development, namely; *Analysis, Design, Development, Implementation, Evaluation*.



**Picture 3.1 ADDIE steps**

The research procedure on the ADDIE model is as follows:

1. Analysis is the process to identify products that are in accordance with the target, thinking about the product concept to be developed. At the analysis stage, the researcher collects the data needed to make the product by

conducting interviews with hospitality teachers. The information obtained is in the form of a syllabus that applied in schools.

2. Design is the design stage of the product concept to be developed. At this point, the researcher began to design learning modules that are been developed. This design phase has 4 (four) steps: selection of reference material according to the syllabus, making learning media frameworks, designing flipbook, and preparation of media validity test questionnaire
3. Development is the process of making the design come true. After the Flipbook learning media was developed, then the researcher sent the flipbook access link to the validators for testing. The validators who will test media are media expert, linguist expert, and material expert.
4. Implementation is testing the product as concrete step to implement the product that are making. After conducting product revisions at the development stage and declared feasible then the product will be implemented in the class that indeed.
5. Evaluation is process to see whether the product made is successful, according to initial expectations or not. The evaluation stage in the ADDIE model development study carried out to provide feedback to product users, so that adjustments made based on the evaluation results or requirements that have not been met by the product. The ultimate goal of evaluation is to measure the achievement of development goals.

## **B. Subject of Research**

In this study, the sampling technique used was *Purposive Sampling*. According to Arikunto (2013), purposive sampling done by taking subjects not based on strata, random, or area but based on having a specific purpose. This research uses students from class XI Hotel 2 of SMK Negeri 5 Pontianak majoring in Tourism Services Business, become the research subjects of product test. Each student asked to pay attention and carefully study the vocabulary, expressions, and conversations material presented in the flipbook. While material, media and linguists experts are the subject of validator

research to test the feasibility of developing Flipbook media in English learning for students.

### **C. Technique of Data Collection**

Technique of Data Collection is a research process in which researchers apply the scientific method in systematically collecting data for analysis. According to Sugiyono (2019), technique of data collection are steps the most important in research, because the main purpose of research is getting the data. In collecting data about designing Flipbook of English learning for Housekeeping, the researcher chose direct and indirect communication to find out Flipbook development of English learning for Housekeeping.

#### **1. Direct Communication**

Direct communication is a communication process in which the communicator conveys his message directly and face to face to the communicant (Anton Tan, 2011). One part of direct communication is interview. Interview chosen to make it easier for researcher to collect data by communicating directly or face to face with informants in order to obtain the data needed in developing Flipbook media.

#### **2. Indirect Communication**

Indirect communication according to Effendi (2002) is communication that uses channel or means to forward a message to the communicant which are far away or numerous. Therefore, indirect communication can also interpreted as communication carried out through intermediaries or media as means for communication. One part of indirect communication is questionnaire. In this study, the researcher used a questionnaire as a method of collecting data to test the validity of developing Flipbook as media in English learning intended for material, media and linguist experts.

#### **D. Tools of Data Collection**

Data collection tools used to help researchers obtain research data. Arikunto (2010:265) states that data collection tools are tools that researchers select and use in their data collection activities to systematize and facilitate these activities. In this research, interviews and questionnaires used as data collection tools.

##### **1. Interviews**

Interviews are used to get the information that needed by the researcher developing flipbook in English learning for Housekeeping. The researcher uses semi-structured interviews are addressed to the teacher concerned which carried out during the pre-observation. Semi-structured interviews are a type of interviewing technique that is carried out by first asking the researcher questions that are already structured so that then one by one deepens to extract further in-depth information about the researcher topic he wants to study (Arikunto, 2010).

This method allows new questions to arise because of the answers given by the resource person so that during the session information digging can carried out in more depth. There are certain details needed, such as understanding the skills needed for the curriculum taught in schools, understanding the approaches and media used by teachers when teaching English to students, understanding their strengths and weaknesses, and understanding specific material according to the applicable syllabus. So that researchers can use the data as a support in this study.

##### **2. Questionnaire**

Questionnaire is a necessary tool in this study to obtain validation test results for the development of flipbook media in English learning for students at Grade XI in SMK Negeri 5 Pontianak. Questionnaires used when the media has been successfully developed and addressed to material, media, and linguistic experts. According to Sugiyono (2017:142) questionnaire is a data collection tool that is carried out by giving a set of questions or written statements to respondents to answer.

In this study, the researcher uses Likert scale as tool to collecting the information with several important instruments to find out the effectiveness of developing flipbook media in English learning to students at Grade XI of SMK Negeri 5 Pontianak. According to Siregar (2016) Likert scale is a scale that can be used to measure attitudes, opinions and one's perception of a particular object phenomenon. This phenomenon determined specifically by the researcher hereinafter referred to as research variable. With a Likert scale, the variables that are measured and translated into several important aspects, which consist of several indicators in each aspect. In this instrument, the examiner given a choice of scores such as;

- 1 : Strongly Disagree
- 2 : Undecided
- 3 : Agree
- 4 : Strongly Agree

#### **E. Techniques of Data Analysis**

In this instrument, data analysis techniques are methods used by researchers to process data into information. According to Meleong (2017), Data analysis is a process of organizing and sort data into patterns, categorizes, and basic descriptive units so they can be found themes and can be formulated working hypotheses as suggested by the data.

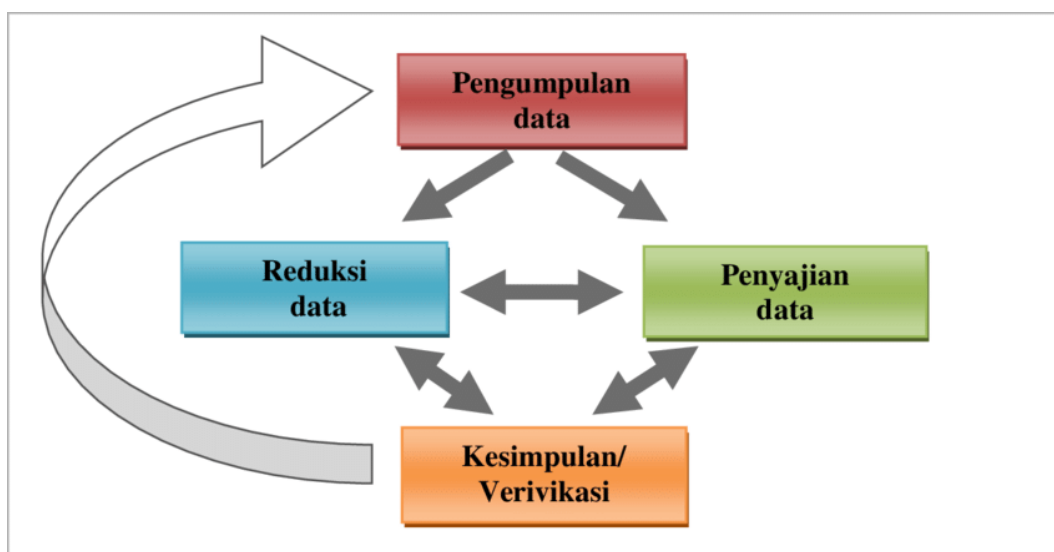
There are 2 stages of data analysis techniques in this study, namely data analysis in interviews and data analysis in questionnaire. The techniques at each stages are as follows:

##### **1. Data Analysis for Interview**

In this instrument, the researcher conducted a semi-structured interview by asking several questions covering three important indicators namely; English learning competencies, learning approaches, and learning media. The data obtained from interviews is primary data in which the researcher gets it directly from the source.

In this stage, the researcher used Miles and Huberman's model interactive analysis. According to Miles and Huberman (2014), this interactive model was divided into 3 stages namely; data reduction, data display, and conclusion drawing. The description and explanation are as follows.

**Picture 3.2 Miles And Huberman's Model Interactive Analysis**



a. Data Reduction

Data reduction is a form of analysis that sharpens, classifies, directs, discards unnecessary data and organizes data in such a way that conclusions can be drawn and verified. At this stage, the researcher selected the necessary and unnecessary data based on the questions that were necessary and did not need to be asked.

b. Data Display

According to Miles and Huberman (2014), data display in the form of information makes it easier to understand events and plan further actions based on that understanding. Data display in this study presented in the form of an attachment in the form of a table.

c. Conclusion Drawing

The final step is conclusion drawing from data that has been reduced and presented. At this stage, the researcher drew conclusions

based on the results of interviews with teacher at SMK Negeri 5 Pontianak.

## 2. Data Analysis for Questionnaire

In analyzing questionnaire data, the researcher uses descriptive statistics. According to Sugiyono (2018:147), Statistic descriptive used to analyze data by describing the data has been collected as it is without meaning to make general conclusions. This type of quantitative research is research data in the form of numbers and analysis using statistics.

In this method, the researcher uses percentage, the steps are as follows:

- a. Make a distribution table for the X and Y variable questionnaire answers.
- b. Determine the score of the respondent's answer with the provisions of the score that has been set.
- c. Add up the score answers obtained from each respondent.
- d. Plugging those scores into the formula:

$$P = \frac{\sum X_x}{\sum XI} 100\%$$

Information:

P : Egibility Percentage

$\sum X$  : Total score rating

$\sum XI$  : The highest score total

Source: Riduwan (2015:15)

## 3. Data Analysis for Media Expert

Media validation was carried out by lecturer of the IKIP PGRI Pontianak TIK Education Study Program. The purpose of media expert validation is to obtain information used to review and develop flipbook-based learning media products. Validation is carried out using a validation form in the form of a statement on a Likert scale. This instrument is in the form of a validation survey of the feasibility of presenting and displaying media, which is an input for the development of flipbook-based learning media products. Validation test sheet for media experts adapted from BSNP

(National Education Standards Agency). The media expert validation instrument is shown in the table below.

**Table 3.1 Format Aspect**

<b>Criteria</b>	<b>Indicator</b>	<b>Numbers of Item</b>
Format Aspect	Color harmony, writing and images on Flipbook media	1
	Selection of font size on Flipbook media	1
	Proportional Layouts	1
	Ease of use of the navigation buttons on Flipbook media	1
	The page shift effect works fine	1
	Clarity of sound effects in flipbook media	1
	Picture quality	1

**Table 3.2 Layout Aspect**

<b>Criteria</b>	<b>Indicator</b>	<b>Numbers of Item</b>
Layout Aspect	Conformity of color proportions	1
	Conformity of color proportions	1
	The suitability of the layout of text and images on the media	1
	The use of appropriate and unchanging symbols or icons	1
	The page redirect feature works fine	1



	The sound produced is clear and audible	1
	Display clear images function to assist students in understanding the material in learning media	1

After going through the data collection stage, the researcher then processed the data using thematic analysis techniques adapted from Ali (1992: 184) using the following formula.

$$P = \frac{\sum X}{\sum XI} \times 100\%$$

Information:

P : Egibility Percentage

$\sum X$  : Total score rating

$\sum XI$  : The highest score total

Source: Riduwan (2015:15)

**Table 3.3 Achievement Level Qualification**

No	Achievement Level	Category	Information
1	76% - 100%	Very Good	Feasible, no revision needed
2	51% - 75%	Good	Feasible, revision needed
3	36% - 50%	Less	Less Feasible, revision needed
4	0% - 35%	Bad	Not Feasible, revision needed

Source: Arikunto (2010) and researcher modification

#### 4. Data Analysis for Language Expert

Language validation was carried out by one of the English language education lecturers at IKIP PGRI Pontianak. Linguist validation aims to obtain information used to study and develop English in flipbook-based learning media products. Validation is carried out using a validation form in

the form of a statement with a Likert scale. This instrument is in the form of a validation survey of the appropriateness of the English language in the media which is used as input for the development of the English language used. Media expert validation test sheet adapted from BSNP (National Education Standards Agency). Media expert validation instruments are shown in the table below.

**Table 3.4 Language Aspect**

<b>Criteria</b>	<b>Indicator</b>	<b>Number of Item</b>
straightforward	The accuracy of the sentence structure to represent the message and information to be conveyed	1
	Keefektifan kalimat yang digunakan	1
	Kebakuan istilah yang digunakan sesuai dengan fungsi	1
Communicative	Facilitate understanding of messages or information	1
Dialogic and Interactive	Able to motivate students	1
	Able to encourage students to think critically	1
Suitability with students	Conformity with the intellectual development of students	1
	Appropriateness with the emotional level of students	1
Conformity with the rules of language	The accuracy of the language used	1
	The accuracy of the grammar used	1
Use of terms, symbols or icons	The use of terms that are precise and not changeable	1

	The use of appropriate and unchanging symbols or icons	1
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After going through the data collection stage, the researcher then processed the data using thematic analysis techniques adapted from Ali (1992: 184) using the following formula.

$$P = \frac{\sum X}{\sum XI} \times 100\%$$

Information:

P : Egibility Percentage

$\sum X$  : Total score rating

$\sum XI$  : The highest score total

Source: Riduwan (2015:15)

**Table 3.5 Achievement Level Qualification**

No	Achievement Level	Category	Information
1	76% - 100%	Very Good	Feasible, no revision needed
2	51% - 75%	Good	Feasible, revision needed
3	36% - 50%	Less	Less Feasible, revision needed
4	0% - 35%	Bad	Not Feasible, revision needed

Source: Arikunto (2010) and researcher modification

##### 5. Data Analysis for Material Expert

Material validation was carried out by a teacher majoring in hospitality at SMK Negeri 5 Pontianak. Material expert validation aims to obtain information used to study and develop material on flipbook-based learning media products. Validation is carried out using a validation form in the form of a statement with a Likert scale. This instrument is in the form of a feasibility validation survey of the content of the material on the media which is used as input for the development of material on flipbook-based learning media products. Material expert validation test sheet adapted from

Ariyono and Andi (2012). Material expert validation instruments are shown in the table below.

**Table 3.6 Material Aspect**

<b>Criteria</b>	<b>Indicator</b>	<b>Number of Item</b>
Format	The suitability of the material with the learning objectives	1
	Completeness of study aid materials	1
	Quality of study aid materials	1
	Presentation of the material in accordance with the objectives formulated	1
	Relevance of learning objectives	1
	Material according to the level of student ability	1
Content	Appropriate image accuracy used for clarity of material	1
	The suitability of the media with the truth of the material	1
	The depth of the material presented	1
	Text can be read properly	1
	Proportional Layout (text and image layout)	1
Display	Background selection suitability	1
	Appropriateness of color proportions	1
	Appropriateness of font selection and font size	1

After going through the data collection stage, the researcher then processed the data using thematic analysis techniques adapted from Ali (1992: 184) using the following formula.

$$P = \frac{\sum X_x}{\sum XI} 100\%$$

Information:

$P$  : Eligibility Percentage

$\sum X$  : Total score rating

$\sum XI$  : The highest score total

Source: Riduwan (2015:15)

**Table 3.7 Achievement Level Qualification**

<b>No</b>	<b>Achievement Level</b>	<b>Category</b>	<b>Information</b>
1	76% - 100%	Very Good	Feasible, no revision needed
2	51% - 75%	Good	Feasible, revision needed
3	36% - 50%	Less	Less Feasible, revision needed
4	0% - 35%	Bad	Not Feasible, revision needed

Source: Arikunto (2010) and researcher modification