CHAPTER III
RESEARCH METHODOLOGY

A. Research Metodology

1. Form of Research

This research is a research method (R & D) research and development. The development model used is the ADDIE model. The research procedure adapts the ADDIE development model developed by Robert Maribe Branch. Addie's model is used to describe a systematic development approach. The researcher chose the Addie Research model because the product being developed is learning media. So the Addie method is suitable for the product development process. ADDIE development model According to Robert Maribe Branch (2009: 2) there are five stages that need to be carried out in this development mode, namely Analysis, Design, Development, Implementation and Evaluation.

Table 3.1 ADDIE model

Analysis	Design	Development	Implemention	Evaluation
Analysis of student needs through teacher.	Designing flipbook-based learning media with front office material	Learning Material Expert Validation	Teacher response	Final revision
Syllabus analysis		Learning Media Expert Validation	Small group trials	
Learning media analysis		Learning Linguist Validation	Field trials	

The research procedure on the ADDIE model is as follows:

a. Analysis

The first stage is the analysis stage. the researcher conducted a needs analysis through pre-observation and interviews which aimed to identify the learning media needed by students at school. after that the

researcher analyzed the basic competencies of front office subjects in the syllabus. Then the researchers analyzed learning media to provide innovation to flipbook-based learning media.

b. Design Stage

This stage is known as product design. At this stage the researcher determines the elements of learning media to be made. The specifications of the media to be developed are in the form of flipbooks which are made as attractive as possible so that they can help students in the learning process. In the first flipbook design stage, determine an attractive cover using the Canva application, develop the components contained in the flipbook such as text, images, video, sound and animation, then all the components that have been made are combined into one using the Heyzine website and produce attractive flipbook media and effective.

c. Development Stage

At this stage the product is in the form of flipbook-based learning media that has been designed and developed according to the design that was made before and is equipped with front office materials. At this stage the product of flipbook learning media is made in such a way that it becomes an interesting and feasible flip book to develop. The researcher conducted a media feasibility test by means of product validation. validation was carried out by material experts at the front office of SMK Negeri 5 Pontianak, media experts, one of the lecturers at the IKIP PGRI Pontianak, and a linguist one of the English lecturers at the IKIP PGRI Pontianak.

d. Implementation

The fourth stage is implementation. Implementation is an activity process that carries out ideas and plans that have been prepared in carrying out student interactions with teachers and learning resources in a learning environment.The environment in question is not only a place when learning is takes place, but also the methods,media and aquipment needed to submit information (Jamil,2014:75).The purpose of this stage

is to prepare a learning environment and involve students in using attractively designed flipbook media.This stage tests the products that have been made in terms of product appearance or function.

e. Evaluation Stage

Evaluation is a process where product development is successful and as expected based on existing needs. the evaluation stage is the final step of the ADDIE model. Evaluation is a process carried out to give value to learning programs (Trisiana and Wartoyo, 2016).

This stage uses formative evaluation which aims to collect data to develop learning media to make it more attractive and effective. Evaluation activities at this stage are not only limited to carrying out when designing, developing, and implementing products, but are also carried out when carrying out all stages of the ADDIE model development.

2. Subject of Research

In this study, the sampling technique used is *Purposive Sampling*. Purposive sampling technique, according to Sugiyono (2018: 138), is sampling using certain considerations in accordance with the desired withdrawal to be able to determine the number of samples to be studied. This research uses students from class XI hospitality 1 at SMK Negeri 5 Pontianak, who are majoring in tourism business, as the research subjects. Each student is asked to pay attention and carefully study the vocabulary, expressions, and conversation material presented in the flipbook.

3. Technique of Data Collection

Data collection techniques are the techniques or methods used by researchers for data collection. The technique of showing a word abstract and not embodied in objects, but can only be seen its use in several ways that can be selected and used by researchers to obtain results from what is studied. According to Sugiyono (2016: 224) says, "The data collection technique is the first step most strategic in research because the main purpose of research is get data". In designing flipbook media, researchers

collect data using direct and indirect communication. The researcher chooses direct communication to collect data, which is done by holding direct communication with the source.

a. Direct Communication

Technique is a data collection technique.by having direct or face-to-face contactwith research subjects to obtain informational datarequired through interviews with research subjects. Interviewseen as a data collection technique with oral questions and answerscarried out systematically in order to achieve research objectives, Gall and Borg(2003:222) interviews contain oral questions thatasked by the interviewer and answered by the interviewer. Whereasdirect communication techniques, according to Sudjana (2018: 114), explainsthat the interview is direct communication between the interview with the interviewee.

b. Indirect Communication

Techniques are data collection techniques performed by collecting data through intermediaries. The means to get the desired data do not depend on exact relationships with respondents but rather on certain tools in the form of questionnaires or psychological scales (Zuldafrial, 2009: 216). As for Hadari Nawawi (2001: 91), he suggests that indirect communication techniques are "how to collect data by holding indirect relationships or with special baits among the necessary for the purpose of it." One part of indirect communication is a questionnaire. In this study, the researcher used a questionnaire as a data collection method to test the validity of the development of flipbooks as media in English, which was carried out by materials and linguists.

4. Tools of Data Collection

Data collection tools are used to help researchers get data.Data collection is the most important aspect of research because the main objective of research is to collect data. Data storage can be accomplished

through a variety of settings, sources, and methods. In this research, interviews protocol and questionnaires are used as data collection tools.

a. Interview

Interviews are used to get the information that needed by the researcher developing flipbook in English learning for Front office. Interviews are the primary form of communication between researchers and respondents. Communication takes place in the form of an in-question in a face-to-face relationship, so the move and mimic responses are media patterns that complete the words verbal. Interview techniques are the way to get data by performing interviews directly with informants. Interviews are interpreted as to how to assemble the materials implemented by the Q&A, in-side, direct face-to-face, and with the direction of the specified destination.

b. Questionnaire

The questionnaire is one of the data collection tools used. by providing a list of questions to the sample to be filled in according to their knowledge the questionnaire is a necessary tool in this study to obtain validation test results for the development of flipbook media in learning English for class XI students at SMK Negeri 5 Pontianak. Researchers used a questionnaire as a method of data analysis. Questionnaires were used by researchers to provide material experts, linguists, and media experts to identify the feasibility of flipbook media in learning. To measure respondents' perceptions in this study, according to Sugiyono (2018: 152), the Likert scale is a scale used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena. With a Likert scale, the variables to be measured are translated into variable indicators. then these indicators are used as a starting point for compiling instrument items, which can be in the form of questions or statements.

The following is an explanation of the 5-point Likert scale (Sugiyono, 2018: 152):

1 = Strongly Disagree (STS)

2 = Disagree (TS)

3 = Undecided (R)

4= Agree (S)

5= Strongly Agree (SS)

5. Techniques of Data Analysis

Data analysis is a process that occurs after all respondent data has been collected. or other sources of data collected (Silalahi, 2012). After collecting data then analyzed. In developing flipbook media, researchers used interviews and questionnaires in data analysis techniques. Validity was shown to test the feasibility of the media being developed. based on content standards in the Development of English Learning Flipbook Media for the Front Office at SMK Negeri 5 Pontianak.

a. Data Analysis for Interviews

An interview is a method of descriptive data analysis.The descriptive analysis method uses statistics to analyze data by describing the data that has been collected as it is without intending of general conclusions.

At this stage, the researcher conducted semi-structured interviews. semi-structured interviews are interviews that are conducted in a more open manner, where the parties invited In the interview, we are asked for opinions and ideas. The interview was conducted by asking a number of questions contained in the interview guide. questions covering three important indicators, namely: competence in learning English, learning approaches, and learning media. Researchers can also add a number of questions to deepen the research.

researchers use data reduction in the form of analysis that sharpens, classifies, directs, discards unnecessary data and organizes data in such a way that final conclusions can be drawn and verified. The basic principle is chronology. (Milles and Huberman, 2007:16). To present data so that it is easy to understand, the analytical steps used in this study are the Analysis Interactive Model from Milies and Huberman, which analyzes

data obtained from interviews in a systematic manner so that it is easy to understand and can be informed to others.

There are 3 stages as follows:

Data reduction, data display, conclusion

1) Reducing data is sorting out the main things, the themes sought, and the patterns. data obtained through interviews. The stages of data reduction provided by the researcher are given by summarizing all the data that has been obtained in the field and focusing on things that are important to look for themes and patterns through sharpening and classifying data. Sharpening is done by transforming long words and sentences into a concise sentence, and data grouping is done by grouping similar data and looking for patterns by writing or typing in the form of descriptions.

2) Display data

presentation of data is a collection of information arranged with the possibility of drawing conclusions. data presentation can be in the form of pictures, tables, schemes and narrative sentences Harsono, (2008: 169) in this way it helps researchers to make it easier to analyze it.

3) Conclusion

In the process of drawing this conclusion, researchers can from the field accompanied by strong evidence supporting the verification stage of the research results. Inference, in view of (Miles,Huberman and Saldana,2014:15),is only a part and a complete activity and configuration. the conclusions were also verified during the research.

The following is a guide that is used in the data analysis process stated as follows:

a. From the results of pre-observation interviews, observations, in complete field notes. These field notes consists of description and reflection.

b. Based on field notes, further reductions are made data. This data reduction is in the form of the main findings important.

c. From data reduction then followed by the preparation of data presentation in a systematic form with edits by researchers so that the meaning clearer and easier to understand.

d. Based on the presentation of these data, then formulated temporary conclusions. the temporary conclusions will always continue evolve in line with the discovery of new data and new understanding, so you will get something solid conclusions and really - in accordance with the real situation. And so on activity this research takes place, that is, occurs, interactions are continuously between the three components of its analysis concurrent with the collection of perceived new data can produce complete data so that it can final conclusion is formulated.

b. Data Analysis for Quesionnaire

Researchers used descriptive statistics in analyzing questionnaire data. Descriptive statistics is a field of statistics related to the way data is collected, structured and how data is presented in a study. This is also in line with what Walpole (1995) said, Descriptive statistics are methods related to data collection and data presentation so that they can provide useful information. Data collected through questionnaires were analyzed with descriptive statistics.

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

1) Make a distribution table for the X and Y variable quesionnaire answers.

2) Determine the score of the respondent's answer with the provisions of the score that has been set.

3) Add up the score answers obstained from each respondent.

4) Plugging those scores into the formula:

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

Information :

P   : Egibility Percentage

∑X   : Total score rating

∑XI   : The highest score total

B. Data Analysis for Media Expert

For media validation, the researcher asked for the help of lecturer at the IKIP PGRI Pontianak TIK Education Study Program. The purpose of media expert validation is to obtain information and feasibility that is used to develop flipbook-based learning media products. Validation is carried out using a form in the form of validation in the form of a statement on a Likert scale. This instrument is in the form of a feasibility validation survey on media display which becomes input and suggestions for the development of flipbook-based learning media products. Media expert validation test sheet adapted from BSNP (National Education Standards Agency). Media expert validation instruments are shown in the table below

Table 3.2 Format Aspect

Criteria	Indicator	Number of Item
Aspek Format	Keserasian warna,tulisan dan gambar pada media	1
	Pemilihan ukuran huruf pada media Flipbook	1
	Proporsional Layout	1
	Kemudahan penggunaan tombol navigasi pada media Flipbook	1

	Efek perpindahan halaman berfungsi dengan baik	1
	Kejelasan efek suara didalam media flipbook	1
	Kualitas gambar	1

Table 3.3 Layout Aspect

Criteria	Indicator	Number of Item
	Kesesuaian proporsi warna	1
	Kesesuaian pemilihan jenis huruf dan ukuran huruf	1
	Kesesuaian tata letak teks dan gambar pada media	1
	Penggunaan symbol atau ikon yang tepat dan tidak berubah-ubah	1
	Fitur pengalihan halaman berfungsi dengan baik	1
	Suara yang dihasilkan jelas dan bisa didengar	1
	Tampilan gambar jernih berfungsi membantu siswa dalam memahami materi dalam media pembelajaran	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.

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

Information :

P : Egibility Percentage

∑X :Total score rating

∑XI :The highest score total

Table 3.4 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

C. 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.

Criteria	Indicator	Number of Item
Lugas	Ketepatan struktur kalimat untuk mewakili pesan dan informasi yang ingin disampaikan	1
	Keefektifan kalimat yang digunakan sesuai dengan fungsi	1
	Kebakuan istilah yang digunakan sesuai dengan fungsi	1
Komunikatif	Memudahkan pemahaman terhadap pesan atau informasi	1
Dialogis dan Interaktif	Mampu memotivasi perserta didik	1
	Mampu mendorong perserta didik untuk berpikir kritis	1
Kesesuaian dengan perserta didik	Kesesuaian dengan perkembangan intelektual perserta didik	1
	Kesesuaian dengan tingkat emosional peserta didik	1
Kesesuaian dengan kaidah bahasa	Ketetapan bahasa yang digunakan	1
	Ketetapan tata bahasa yang digunakan	1
Penggunaan istilah,symbol atau ikon	Penggunaan istilah yang tepat dan tidak berubah-ubah	1
	Penggunaan symbol atau ikon yang tepat dan tidak berubah-ubah	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.

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

Information :

P   : Egibility Percentage

$\sum X$: Total score rating

$\sum XI$: The highest score total

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

D. Data Analysis for Material Expert

Material validation was carried out by a teacher majoring in hospitality at SMK Negen 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 instruments are shown in the table below.

Table 3.6 Material Aspect

Criteria	Indicator	Number of Item
Format	Kesesuaian materi dengan tujuan pembelajaranya	1
	Kelengkapan bahan bantuan belajar	1
	Kualitas bahan bantuan belajar	1
	Penyajian materi sesuai dengan tujuan yang dirumuskan	1
	Relevansi tujuan pembelajaran	1
	Materi sesuai dengan tingkat kemampuan siswa	1
Isi materi	Ketepatan gambar yang sesuai yang digunakan untuk kejelasan materi	1
	Kesesuaian media dengan kebenaran materi	1
	Kedalaman materi yang disajikan	1
	Teks dapat terbaca dengan baik	1
	Proporsional Layout (tata letak tek dan gambar)	1
Tampilan	Kesesuaian pemilihan background	1
	Kesesuaian proporsi warna	1
	Kesesuaian pemilihan jenis huruf dan ukuran huruf	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.

$P = \underline{\sum X \, x \, 100\%}$

$\sum XI$

Information :

P : Egibility Percentage

$\sum X$:Total score rating

$\sum XI$:The highest score total

Table 3.7 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