# CHAPTER III

# RESEARCH METHOD

In this chapter, researcher presented about model of research and development, procedure of research and development, and try-out of the product.

## A. Model of Research and Development

Research design is the way to collect data. Based on the research question in chapter I, this study used the research and development research design. Research and development is research method that used to make a product and measure the effectiveness of the product (Sugiyono, 2014:407). In this case, the researcher developed slideshow as learning media by using Cartoon Story Maker. The researcher hoped that this media could support in teaching writing narrative text for the tenth grade students of visual communication design class at *SMKN 1 Boyolangu, Tulungagung*.

In chapter II had been explained that there were several models in developing teaching media, such as: Hoge et al. model, Brog & Gall model, Hannafin & Peck model, ADDIE model, Criswell model, and computer based instructional (CBI) model. The researcher used CBI model for this study. Priyanto (2009) mentioned three stages in developing computer based instructional (CBI), they are: plan (the plan stage was

divided into some sub-stage: need analysis, students' character analysis, material survey, cost benefit analysis, learning analysis, determine beginning students' action, and determine learning objectives); development (the development step is the step that needs some experts related to computer program, planning of learning, material, and developing teaching media); and evaluation (the evaluation step consisted of formative and summative evaluation. Formative evaluation is a data collecting process that the goal is to improve and increase the quality of the developing product. While summative evaluation is an evaluation to give final evaluation to the product).

CBI model was chosen for this study because it was appropriate to be applied in developing slideshow video as learning media by using Cartoon Story Maker application because it only can be operated by using computer (PC) or laptop. Moreover, this model has simple steps and easy to use for beginner.

## B. Procedures of Research and Development

Each step can be explained in detail as follows:

### 1. Plan Stage

This stage started from need analysis. The need analysis was conducted by doing preliminary observation in visual communication design class of *SMKN 1 Boyolangu*. The researcher conducted preliminary observation when doing internship I on April, 5th 2019 and April, 12th 2019. The data of need analysis were collected by using

observation sheet as the instrument.The researcher joined during teaching learning process and observed the activities in the class. The researcher concerned on teaching media that was used by the teacher.

From the observation, the researcher found that the teacher used book as the media for teaching writing narrative text and the students seemed lack of motivation in the class. It was proved when they did other activities like have a conversation with other students, play smartphone, and so on. The teacher asked the students to read the text and retell the story entitled Issumboshi. The students were not enthusiastic to come forward and retell the story. They were motivated when the teacher gave the score to who came forward.

Therefore, the researcher assumed that the teacher and students need teaching media that can make teaching and learning process run more effective and efficient. Based on the result of interview, the students wanted fun learning.They also needed teaching media which made teaching learning process was more interesting. So far, the students were difficult to understand the material of teaching because they were not interested in reading textbook.

By developing slideshow video through Cartoon Story Maker, the researcher could create the appropriate teaching media for supporting teaching learning process in writing narrative text. Meanwhile from material survey, the researcher decided the material in topic of second

semester for the tenth grade of visual communication design class at vocational high school that was narrative text about legend story.

## 2. Development Stage

The second step was development stage. This stage dealt with process of developing product. After conducting need analysis, the researcher searched and found an application was named Cartoon Story Maker. The product that developed in this study was slideshow video for teaching writing narrative text in the tenth grade. The final product from this development was in form of slideshow video with *MP4* format.

Before creating the product, the researcher had consultation with multimedia teacher of SMKN 1 Boyolangu, who named Mr. Dika. The topic of consultation was about how to operate the application. Actually the researcher ever used this application, so Mr. Dika only gave some suggestions related to layout and font.

After having consultation, the researcher started writing three legend story, they are *Malin Kundang, Roro Jonggrang*, and *The Legend of Toba Lake.* First of all, the researcher wrote those stories in a piece of paper. Those stories were chosen because it based on curriculum and syllabus for the tenth grader in second semester. After that, the researcher found some backgrounds and characters related to the story. After collecting the backgrounds and characters, the next step was importing them in Cartoon Story Maker application and

editing process. In editing process, the researcher wrote some narrations and conversations based on the plot of story.

All of slides that have been made in Cartoon Story Maker were saved in html format. Then, all files had to be opened in flash player and screenshot the picture one by one. The next step was arranging the picture into best arrangement by using Windows Movie Maker application. After it became complete story, the researcher input an instrumental music related with the story and then save as the product in MP4 format. The final product was shared to the students by smartphone. For further information, the design of the product could be seen in appendix 1 on page 67. Appendix 2 provided information about English teaching media layout on page 71.

3. **Evaluation Stage**

The evaluation stage consisted of formative and summative evaluations. The aims of formative evaluation were to improve and to increase the quality of the product. Formative evaluation in this research is expert validation. There are two expert validators, they are English teacher and multimedia teacher from *SMKN 1 Boyolangu*. The English teacher was named Mrs. Roro validated about five aspects; those are: 1) instruction; 2) curriculum; 3) content of material; 4) feedback; 5) language use. The multimedia teacher was named Mr. Dika validated about three aspects; those are: 1) image; 2) screen

layout; 3) text layout. The result of validation was used to revise the product before trying it out.

The second evaluation was summative evaluation. Summative evaluation meant try-out of the product. This try-out was used to know the quality and the attractiveness of the product. After having formative evaluation, the product was revised by the researcher and applied in learning process. Summative evaluation was done by the students. It was related to students' responses after having learning process by using slideshow video.

## C. Try-Out of the Product

### 1. The Design of Trying Out the Product

The try-out of the product was implied in field trial try-out. The students in field try-out were invited to have learning English by using the media for two meetings. In the end of teaching and learning process, the students answered the questionnaires to see the expediency and quality of the product. There were four aspects in the questionnaires, they are: program operational, user reaction, safety program, and supplementary material. Further information about questionnaires for students could be seen in appendix 4 on page 86.

### 2. Subjects of Trying Out the Product

The subject of product validation was English teacher and multimedia teacher of *SMKN 1 Boyolangu*. Moreover, the subject in field trial try-out was students of the tenth grade in visual

communication design class. The subject consisted of 36 students and they are divided into 6 groups, each group consisted of 6 students. More information about the subjects could be seen in appendix 3 on page 84.

3. **Types of Data**

Try-out of the product was used to evaluate the expediency and quality of the product. The type of data from the result of that evaluation was both qualitative and quantitative. Qualitative data were derived from observation that was conducted by the researcher before the product was applied in learning process. Quantitative data were derived from calculation of questionnaire for English teacher, multimedia teacher, and students. In addition, students' evaluation about the product also can be considered to know the quality of the product. Some comments from English teacher and multimedia teacher also considered as qualitative data that were used to revise the design of the product before the product was used in whole class. Meanwhile, the students' responses were used to investigate the quality and expediency of the product when it was used in teaching learning process.

4. **Instruments of Data Collection**

Research instrument is a tool used to measure both natural and social phenomenon which is specifically observe (Sugiyono, 2009). In other word, research instrument is tool which helps the researcher to

collect data. In this study, the researcher used observation sheet and questionnaire.

The observation sheets were used to observe the situation in the classroom and students' responses while teaching learning process was on going before the product was applied in the classroom. There were five aspects to be observed, those were: 1) media; 2) material; 3) teacher's instruction; 4) students' responses; 5) class situation.

Furthermore, questionnaires were used to evaluate the quality of the product. Questionnaires were addressed to English teacher, multimedia teacher, and students. Each subject has different aspect in answering the questionnaire. Questionnaires were written in Indonesia to avoid misunderstanding between the researcher and the respondents. For further information, the detail of questionnaires could be seen in appendix 4 on page 86.

Both of observation sheet and questionnaires were validated by English teacher who named Mr. Agus from *SMKN 1 Boyolangu.*

5. **Technique of Data Analysis**

Each item of questionnaire is classified into 5 scales and each scale has a certain score. Score 5 is very good. Score 4 is good. Score 3 is fair. Score 2 is poor. Score 1 is very poor. Furthermore, the indicator category for each item call 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). Those data are changed into percentage of data, the formula is:

Percentage (%) = $\dfrac{score\ (n)}{score\ maximal\ (N)} \times 100\%$

(Source: Anggraini, 2015:37)

Then, the data are transformed into qualitative data with high percentage is 100% and low percentage is 0%. After that, the data will be described qualitatively. Range maximal score minus minimal score (100% - 0% = 100%), the result is 100%. Large of interval is maximum score divided by scales (100% divided by 5 scales is 20%), the result is 20%.

So, based on the count up, range percentage and the qualitative category is:

**Table 3.1 Range Percentage and Qualitative Criteria**

| Percentage | Category |
|---|---|
| 81% - 100% | Very Good |
| 61% - 80 % | Good |
| 41% - 60% | Fair |
| 21% - 40% | Poor |
| 0% - 20% | Very Poor |

(Source: Anggraini, 2015:37)