CHAPTER III

RESEARCH METHOD

In this chapter, discusses about the methodological steps of this research. It covers research design, research procedure, research schedule, research instrument and data analysis technique.

3.1 Research Design

The type of this research is Research & Development (R&D) using 4D model by Thiagarajan (1974). The 4D model consists of *define, design, develop and disseminate*. Research & Development (R&D) aims is to produce a new product or to improve a product in learning through the development process. In this research, the researcher developing My Papa Darling as an English teaching media for Part of Speech.

3.2 Research Procedure

In order to discovered the best result of this research, the researcher adapted the model by Thiagarajan (1974) which is called as Four-D (4D) Model. The researcher simplified the steps by modifying of the process since the times is limited. 4D stages will be discussed below :

3.2.1 First Stages: Define

3.2.1.1 Front-end analysis

In this step, the researcher doing analysis towards English Curriculum that used in Junior High School.

3.2.1.2 Learner analysis

Learner analysis is a way to obtaining the information related to the students characteristic through interviewing the English teacher. Students characteristic consists of English capability, problem, and common errors in English lesson.

3.2.1.3 Task and conceptual analysis

These both analysis designed to help the researcher determine the activities applied by English teachers in learning process and investigated the activities models which matched with the aims of the study and the students condition.

3.2.1.4 Specifying instructional objectives

This step is to formulate the results of the task and conceptual analysis which done before. In this way, the researcher can considered the appropriate media to be applied in order to make better the learning process atmosphere and recognize that the media content and the activities is practically relevant with the students.

3.2.2 Second Stages: Design

3.2.2.1 Material and Media Selection

The researcher selecting the proper material and media. The criteria of selection the material and media based on the result of front-end, learner, task and concept analysis which done before. In addition, the researcher also adaption the students characteristic and the available facilitate in the school.

3.2.2.2 Format selection

In this step, the researcher design the format of the product material based on the English Curriculum in Indonesia.

3.2.3 Third Stages: Develop

3.2.3.1 Expert appraisal

The purpose of this step is to get feedback of the research. The researcher can modifying the media to make it better, accurate, relevant and more appropriate. The expert validation is divided into two domains, there are instructional review towards appropriateness, and effectiveness of media and the domain of technically review of media. Experts appraisal is taken through questionnaires, the researcher

utilized three experts. Two of them are English Education Department lecturer in Muhammadiyah University of Surabaya and one others is English teachers in SMP Negeri 58 Surabaya.

3.2.4 Stage 4: Disseminate

The researcher bring the product of media into the field and apply it to the students. The researcher do observation technique through checklist sheets to analyzing students conditions and the activity learning process in the field. In the end of the meeting, the questionnaires is distributed to the students regarding to know the students' responses toward the media.

In dissemination stages, the evaluations taken from the students' responses. The first evaluation is internal evaluation done by the researcher herself intent to recognized that the media already appropriate with criteria determined by the researcher. The media modified based on the results of field test. The second evaluation conducted by the experts through similar questionnaires. It is resolve to collected the experts opinion of the technical and instructional quality of developing the media. In this case, experts opinion to supply the objective judgment as a section of the final validation report.

3.3 Research Schedule

This research is conducted in SMP Negeri 58 Surabaya. The subject of the research of My Papa Darling as an English teaching media for Part of Speech is in 9th E grade students. The research of schedule presented as follows:

Table 3.1. Research Schedule

No.	4D Stages	Activities	Date
1.	Analysis	1. Front-end Analysis 2. Learner Analysis 3. Task and Conceptual Analysis 4. Specifying Instructional Objectives	November-December, 2019

2.	Design	1. Material and Media Selection 2. Format Selection 3. Design of Product	February-Maret, 2020
3.	Development	1. Validation from Experts 2. Design Revision	April, 2020
4.	Implementation	1. Field Trials 2. Students Questionnaires	April, 2020
5.	Evaluation	1. The Appropriateness of Learning Media Product 2. Final Product	May-July, 2020

3.4 Research Instrument

3.4.1 The Validation Sheets of Media

These validation sheets used to obtain the validity of the developing My Papa Darling as an English teaching media for Part of Speech. The validation sheets is given to the experts such as the lecturer and the English teacher to receive the appraisal of the aspects that the researchers developed.

3.4.2 The Students Questionnaires Sheets

The students questionnaires sheets used to find out the responses and the interest of the students after using Papa Darling as an English teaching media for Part of Speech in the learning activity process.

3.4.3 Observation Checklist Sheets

Observation is the activity of giving total concern to the research object. The purposes of the observation is to explains the situation in learning activities, individual involvement, and the relation between situation and activities during learning. In conducting the observation, the researcher will use the observation

checklist sheet to make it more systematic, containing the list of indicator aspects that adjusted to My Papa Darling learning media.

3.5 Data Analysis Technique

Data analysis technique is the way to analyze the data after conducted the research. The analysis applied as follows:

3.5.1 Analysis of Product Validation

The aims of this analysis is to recognize the validation of My Papa Darling media and the research instruments which be validated by some experts such as the lecturer and the English teacher. The data of the score being process by adapted the rules of giving a score and classifying the results of assessment based on Widoyoko (2015).

1. Highest score = total item of assessing × total of choice

2. Final score = $\frac{the\ total\ of\ the\ score}{highest\ score}$ × total of interval classes

3. The total of interval classes = the scale of scoring

It means that if the assessing used the scale of 4, then the results of assessing is classified to be 4 interval classes.

4. Determine of the interval distance (Ji) using the formula :

$$Ji = \frac{(t-r)}{Jk}$$

Explanation :

t = Highest score

r = Lowest score

Jk = total of interval classes

20

Based on the determinate above, the classified of the assessing result used the scale of 4 as follows :

1. Highest score

2. Lowest score

3. Interval distance

4. Classification the results of assessing, be presented in following table 3.1

Table 3.2 Score Assessment Categories Towards Research Instruments Validation

Score	Categories	Interval Score	Classification
4	The instruments very appropriate to use	$3,25 < X \leq 4,00$	Excellent
3	The instruments appropriate to use	$2,50 < X \leq 3,25$	Good
2	The instruments inappropriate to use	$1,75 < X \leq 2,50$	Less
1	The instruments very inappropriate to use	$1,00 < X \leq 1,75$	Poor

(Widoyoko, 2015)

Score conservation in table 3.2 become reference for the researcher to measure the validity of instruments and the product of My Papa Darling.

3.5.2 Analysis of Students Questionnaire

Analysis of students responses are calculated by attitude aspects used to quantify the tendency of students attitude through the submitted questions. A range score that given to the students: Very Approve (VA), Approve (A), Do not Approve (DA), and Do Not Approve at all (DAA).

To analyze the students questionnaire results data, firstly the total respondents is discovered through students answer on each statement items. Then, in order to calculate students questionnaire score, the total of respondent is multiply by the chosen answer score.

$$NRS = \sum R \times \textit{the score of question choice}$$

Explanation :

NRS = The score of student response

$\sum R$ = The total of respondent who choose the answer

The formula to count the scores of the students responses as follows:

Table 3.3 Score of Students Responses

The Score of Students Response	Formula
NRS SS	$NRS = \sum R \times 4$
NRS S	$NRS = \sum R \times 4$
NRS TS	$NRS = \sum R \times 4$
NRS STS	$NRS = \sum R \times 4$

(Masriyah, 2006)

Explanation :

NRS SS = The score of very approve response

NRS S   = The score of approve response

NRS TS = The score of do not approve response

NRS STS = The score of do not approve at all response

To calculate the percentage of score of students responses from each answer is using

the formula as follows:

$$\text{Percentage NRS} = \frac{\sum NRS}{NRS\ Maximum} \times 100\%$$

The next steps is to determined the criteria percentage of students responses score:

Table 3.4 Criteria Percentage of Students Responses

Percentage	Explanation
$0\% \leq NRS \leq 20\%$	Very Weak
$20\% \leq NRS \leq 40\%$	Weak
$40\% \leq NRS \leq 60\%$	Enough
$60\% \leq NRS \leq 80\%$	Strong
$80\% \leq NRS \leq 100\%$	Very Strong

(Masriyah, 2006)

The last steps is to count the total of criteria very weak, weak, enough, strong, and very

strong by the all items of question. The categories of all questions as follows:

1. If ≥ 50% by the all question items, the categories is strong or very strong, it means the responses of students is positive.

2. If < 50% by the all question items, the categories is weak or very weak, it means the responses of students is negative.

3.5.3 Analysis of Observation Sheet

Data from observation included list of the observation learning activities. The data of the score being process by adapted the rules of giving a score and classifying the results of assessment based on Widoyoko (2015).

1. Highest score = total item of assessing × total of choice

2. Final score $= \frac{the\ total\ of\ the\ score}{highest\ score} \times$ total of interval classes

3. The total of interval classes = the scale of scoring

    a. It means that if the assessing used the scale of 4, then the results of assessing is classified to be 4 interval classes.

4. Determine of the interval distance (Ji) using the formula :

$$a.\quad Ji = \frac{(t-r)}{Jk}$$

    Explanation :

    t = Highest score

    r = Lowest score

    Jk = total of interval classes

Based on the determinate above, the classified of the assessing result used the scale of 4 as follows :

1. Highest score

2. Lowest score

3. Interval distance

23

4. Classification the results of assessing, be presented in following table 3.5

Table 3.5 Score Assessment Categories Towards Observation Sheet

Score	Categories	Interval Score	Classification
4	Learning activities with My Papa Darling are excellent	$3,25 < X \leq 4,00$	Excellent
3	Learning activities with My Papa Darling are good	$2,50 < X \leq 3,25$	Good
2	Learning activities with My Papa Darling are less	$1,75 < X \leq 2,50$	Less
1	Learning activities with My Papa Darling are poor	$1,00 < X \leq 1,75$	Poor

(Widoyoko, 2015)

Score conservation in table 3.1 become reference for the researcher to measure the observation sheet of My Papa Darling learning media in the classroom.

24