

CHAPTER III

RESEARCH METHOD

Research design of this study belongs to Research and Development (R&D) Study. In this case, the researcher refers to the approach of Harris (1969). This is cause this study will end up with the test as a final product. Actually, in Harris (1969) design, there are several cycles that should be done for developing the test. The following cycles are planning the test, preparing the test items and directions, reviewing the test, pretesting the test, and analyzing the result.

This research will be developed by using the design of harris (1969) in developing reading test. The stage consist of : (1) Planning the test, (2) Preparing the test items and directions, (3) Reviewing the test, (4) Pre-testing the test, (5) Analyzing the result. It can be seen in the figure as follows:

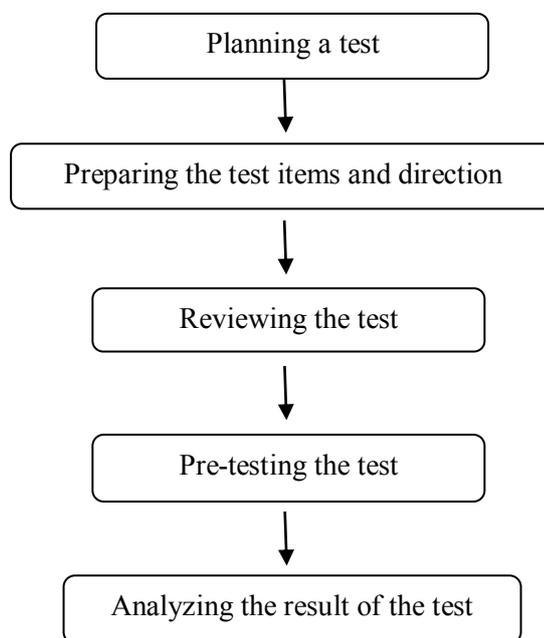


Figure 3.1 Research and Development stage adapted from Harris (1969)

Each stage of developing the test by using Harris (1969) design will be explained below.

3.1 Planning the Test

Planning the test is the first step did by the researcher. The researcher uses the syllabus as a source of analysis. The researcher gains the data what researcher needs from the syllabus. As stated by Harris (1969), in planning the test cycle there are such steps that should be follow. Those steps are determining the general course of objectives, deviding the general course into their component and establishing the general design of the test.

a. Determining the general course of objectives

In this step, first of all, the researcher uses the syllabus as a source for need analysis. Then, the researcher determines the general objective of course. The general objective of course of this reading test is developed from the syllabus gotten by the teacher which the teacher uses in doing teaching learning at that class. The syllabus used here is in accordance with 2013 curriculum.

This reading test is designed for seventh grade students of Junior High School at SMPN 1 Cerme. It is more specifically only for the second semester. Students' reading comprehension is the skill which researcher wants to measure.

Based on the syllabus of seventh grade students of Junior High at SMPN 1 Cerme at second semester, the researcher determines the general objectives and specific objectives. The general objectives and specific objectives belong to competence and subcompetence in the syllabus. Thus the general objectives and specific objectives of this reading test are as follows:

No.	Competence	Sub-Competence
1	3. Understanding the knowledge (factual, conceptual and procedural) based on curiosity about science, technology, art, culture and events related to the visible phenomenon.	<p>3.6 Understanding the social function, the structure of the text, and linguistic elements of text label name and a list of items, according to the context of use.</p> <p>3.7 Understanding the social function, the structure of the text, and linguistic elements in the text to state and ask the nature of people, animals, objects according to the context of use.</p> <p>3.8 Understanding the social function, the structure of the text, and linguistic elements in texts to state and ask behavior/action/function of people, animals, objects, according to the context of use.</p> <p>3.9 Understanding the social function, the structure of the text, and linguistic elements of text instruction (instruction), the sign (short notice), warning signs (warning/caution), according to the context of use.</p> <p>3.10 Understanding the social function, the structure of the text, and linguistic elements from the descriptive text by stating and asking about descriptions of people, animals, and objects, very short and simple, according to the context of use.</p> <p>3.11 Understanding the social function and linguistic elements in the song.</p>
2	4. Trying, process, and serve in the realm of the concrete (using, break down, compose, modify, and make) and the realm of the abstract (writing, reading, counting, drawing, and writing) in accordance with what have been learned by the students in school and the other in the same source of viewpoints/theories.	<p>4.7 Getting the meaning of short and simple text instruction, marks or signs, warning signs, verbal and written very short and simple.</p> <p>4.8 Getting the meaning in oral and written descriptive texts, very short and simple.</p> <p>4.9 Getting the meaning of the song.</p>

Table 3.1 General Objectives and Specific Objectives of Test

b. Deviding the general course into their component

By knowing the general course, the researcher needs to break it down into the specific component. The specific component on developing reading test means the objective and the indicators of daily teaching learning.

Thus, the test objectives of this English reading test is as follows:

The objectives of Reading Test

- 3.6 - Given the table list, the students are able to identify the structure of the table
- Given the table list, students are able to categorize the linguistic element of the table
 - Given a list table, students can associate a list of the items in the table with usage situation
- 3.7 - Given a short sentence, the students are able to identify the nature of people, animals, objects
- Given the dialogue, students were able to categorize the sentence structure of asking and stating the nature of people, animals, objects
 - Given a short paragraph, students are able to classify the linguistic elements in asking and stating statement of the nature of people, animals, objects
- 3.8 - Given a short sentence, the students are able to identify the behavior/action/function of people, animals, objects.
- Given the dialogue, the students are able to categorize sentence structure of asking and stating the behavior/action/function of people, animals, objects
 - Given a short sentence, the students are able to classify linguistic elements in asking and stating statement of the behavior/action/function of people, animals, objects.
- 3.9 - Given a short sentence, the students are able to identify the structure of the text as well as the linguistic elements of the text of instruction (instruction), the sign (short notice), warning signs (warning/caution)
- Given the picture, the students are able to deduce the structure of the text that matches the sign
 - Given the picture, the students are able to classiy the text of instruction, the sign (short notice), warning signs (waring/caution)
- 3.10 - Given the descriptive text, the students are able to identify the elements of the language contained in the text
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- Given the descriptive text, the students are able to elaborate on the purpose of the text
 - Given the descriptive text, the students are able to investigate the structure contained in the text
- 3.11 - Given the lyrics of the song, the students are able to identify the words used in the song
- Given the lyrics of the song, students are able to decipher the meaning of the phrase in the lyrics of the song
 - Given the lyrics of the song, the student is able to determine the theme of song
- 4.7 - Given a picture of the marks/signs of warning signs, the students are able to identify these images
- Given a sentence of warning, the students are able to conclude that mark
 - Given the warning signs, the students are able to grasp the meaning of these markers
- 4.8 - Given the descriptive text, the students are able to identify the content of the text
- Given the descriptive text, the students can infer the content of reading
 - Given the descriptive text, the students are able to answer questions related to the text content
- 4.9 - Given the lyrics of the song, the students were able to identify the meaning implied in the song
- Given the lyrics of the song, students are able to decipher the meaning of the expression contained in the lyrics of the song
 - Given the questions about the lyrics of the song, students are able to grasp the meaning of the lyrics of the song
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Table 3.2 Objective of test

c. Establish the general design of the test

There are two important elements which must be considered in establishing the general design of test. Those are the time allocation and the degree of speediness to build the test (Harris:1969).

The form of this reading test are objective & subjective test. There will be 30 questions, 25 questions of multiple choice item and 5 questions of

essay test item. This multiple choice consists of one right answer and three alternative answers as a distractor.

For the time of allocation, the researcher provide 75 minutes to the students to do the test. The time of 75 minutes is expected enough for students to answer thirty questions.



READING COMPREHENSION TEST

Subject : The Seventh Grade Students
 Time : 75 Minutes
 Test Formats : Multiple Choice and Essay Type
 Number of Items : 25 Items of Multiple Choice and
 5 Items of Essay Type

General Information:

1. There are two sections in this test: multiple choice (25 items) and essay type (5 items)
2. The time allocation for them is 75 minutes
3. Do the multiple choice first before doing the essay type

Figure 3.2 General Design of Test

3.2 Preparing the test items and direction

Preparing the test items and direction is the second stage of developing the reading test. In preparing the test items and direction, it based on the general objective of course which researcher has been developed, there will be 30 item questions of test.

In developing question or each item test, it refers to the indicator and the objective of teaching learning in the classroom as a general objective of course. By knowing the indicators and the objective of teaching learning, the researcher creates a possible question which appropriate with the list of indicator.

The students reading skill measured by this test are about answering question based on passage, understanding structure of sentence, recognizing topic, understanding main ideas, etc.

The list of test items related to the objective of course is as follows:

Objective of Test	Number of Question	Format of Test
3.6 - Given the table list, the students are able to identify the structure of the table	1	MC
- Given the table list, students are able to categorize the linguistic element of the table	2	MC
- Given a table list, students can associate a list of the items in the table with usage situation	3	MC
3.7 - Given a short sentence, the students are able to identify the nature of people, animals, objects.	4	MC
- Given the dialogue, students are able to categorize the sentence structure of asking and stating the nature of people, animals, objects	5	MC
- Given a short paragraph, students are able to classify the linguistic elements in asking and stating statement of the nature of people, animals, objects	6	MC
3.8 - Given a short sentence, the students are able to identify the behavior/action/function of people, animals, objects.	7	MC
- Given the dialogue, the students are able to categorize sentence structure of asking and stating the behavior/action/function of people, animals, objects	8	MC
- Given a short sentence, the students are able to classify linguistic elements in asking and stating statement of the behavior/action/function of people, animals, objects.	9	MC
3.9 - Given a short sentence, the students are able to identify the structure of the text as well as the linguistic elements of the text of instruction (instruction), the sign (short notice), warning signs (warning/caution)	10	MC
- Given a picture, the students are able to deduce the structure of the text that matches the sign	11	MC
- Given a picture, the students are able to investigate the	12	MC

statements related to the picture		
3.10 - Given the descriptive text, the students are able to identify the elements of the language contained in the text	16	MC
- Given the descriptive text, the students are able to elaborate on the purpose of the text	17	MC
- Given the descriptive text, the students are able to investigate the structure contained in the text	18	MC
3.11 - Given the lyrics of the song, the students are able to identify the words used in the song	19	MC
- Given the lyrics of the song, students are able to decipher the meaning of the phrase in the lyrics of the song	20	MC
- Given the lyrics of the song, the student is able to determine the theme of song	21	MC
4.7 - Given a picture of the marks/signs of warning signs, the students are able to identify these images	13	MC
- Given a sentence of warning, the students are able to conclude that mark	14	MC
- Given the warning signs, the students are able to grasp the meaning of these markers	15	MC
4.8 - Given the descriptive text, the students are able to identify the content of the text	1	Essay
- Given the descriptive text, the students can infer the content of reading	2	Essay
- Given the descriptive text, the students are able to answer questions related to the text content	3-5	Essay
4.9 - Given the lyrics of the song, the students were able to identify the meaning implied in the song	22	MC
- Given the lyrics of the song, students are able to decipher the meaning of the expression contained in the lyrics of the song	23-24	MC
- Given the questions about the lyrics of the song, students are able to grasp the meaning of the lyrics of the song	25	MC

Table 3.3 List of Test Items

This reading test is developed for second semester. There are many topic included to second semester teaching material such as, table list; asking and stating the nature of people, animals, objects; asking and stating the behavior/action/function of people, animals, objects; instruction, short notice,

warning/caution; descriptive text; song. The detail of the item test distribution related to the topic is described in the following table.

Topic	Type of Question	Number of Question
Table List	MC	1,2,3
Asking and Stating The Nature of People, Animals, Objects	MC	4,5,6
Asking and Stating The Behavior/Action /Function of People, Animals, Objects	MC	7,8,9
Instruction, Short Notice, Warning/Caution	MC	10,11,12, 13,14,15
Descriptive Text	MC, Essay	16,17,18,1,2,3,4,5
Song	MC	19,20,21,22,23,24,25

Table 3.4 Detail of Item Test Distribution

The direction for multiple choice question includes the instruction to write down the name, read the following passage before answering the question, answer the multiple choice questions by crossing the column under the letter A, B, C, or D on the answer sheet.

The direction for essay includes the instruction to answer the essay question after finishing do the multiple choice items and then answer the question briefly on the separate paper provided on this test.

3.3 Reviewing the Test

After preparing the test items and the direction, researcher will do some review on the reading test which has been developed. It also known as validation phase. Validation is needed in order to make a sure that the reading test which has been developed before is valid enough. In validation phase, the researcher only focuses on the content validity analysis. The process of validiting the content of

reading test will be done by the expert of test, in this case is the teacher who teaches in that class. The purpose of the validation here is to decide whether it is appropriate or not for being tried out to the students in the class. The point puts on validation sheet covers the point of competence, sub-competence, indicators, material, and question. The teacher will investigate each items of the test whether it in accordance with the points that has been raised by researcher before. The points are as follows:

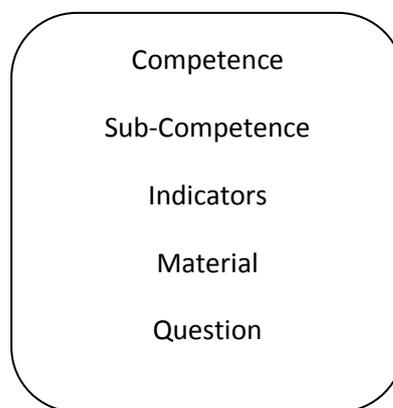


Figure 3.3 Points of Content Validity

3.4 Pre-testing the Test

Pre-testing is the next step after conducting validation step. In pre-testing the test, the test will be implemented it in 7J class of SMP Negeri 1 Cerme. The number of students of this class is twenty eight students. Students will do the test with the allocation time about 75 minutes. Pre-testing the test aims to determine the extent of the test works before it being analyzed by researcher. Also, by testing this reading test, the researcher will get the valuable feedback towards reading test which have been developed and also can figure out the exact time allocation to do the test.

3.5 Analyzing the Result of the Test

After pre-testing the test, the researcher will try to analyze the data gotten from the pre-testing phase. The researcher will analyze three points of test. The first is analyzing the reliability of the test. The second is analyzing the validity of the test. The last is analyzing the item facility of the test.

a. Analyzing the reliability of the test.

To know the reliability of the reading test, the researcher uses the SPSS software for analyzing it. It aims to decide whether the test are reliable or not. The researcher calculates the reliability of test by following the steps of using SPSS as follows:

1. Input the data score of student in SPSS sheet
2. Click tab Analyze- Scale- Reliability Analysis
3. Move each data to the items coloumn
4. Click Statistics button
5. Give the checklist to item, scale, scale if item deleted then click continue and OK
6. Then reliability coeffisien will be displayed

b. Analyzing the validity of the test

To know the validity of the each items test, the researcher uses the SPSS software for analyzing it. An item is said to be valid if the number of corrected item-total correlation is higher than the value of r Pearson correlation. In r Product Moment's table, the number of 28 students represent the number of

0,361. Thus, it can be concluded that the items of test are considered valid if the number of corrected item-total correlation is higher than 0,361 figure.

c. Analyzing the item facility of the test

Item facility is one of the things that need to be considered in analyzing each item of test. Item facility is a term of how easy or difficult an items of test. The item which can be answered by most of students belongs to easy item. In the other hand, the item which can be answered only by few students belongs to difficult item. According to Djwandono (1996) in his study states that the ideal index of item facility is between 0.20-0.80.

The table used for investigating the item facility is as follows:

Items	N Total	Correct Answer	Wrong Answer	Item Facility	Conclusion
1	28				
2	28				
3	28				
...					

Table 3.5 Table Used For Investigating The Item Facility

The formula used for investigating item facility of multiple choice items is as follows:

$$IF = N \text{ correct} : N \text{ total}$$

IF : Item Facility

N correct : Number of students who answer correctly

N total : Number of students who take the test

The formula used for investigating item facility of essay test items is as follows:

$$If = \frac{Sh + Sl - (2xN \times Sc \text{ min})}{2N(Scmax - Scmin)}$$

Sh = Correct answers for upper group

Sl = Correct answers for lower group

N = Number of subject taking the test

Scmax = Maximum score given to an item

Scmin = Minimum score given to an item

d. Analyzing the item discrimination of the test

Item discrimination is one of the criteria in the analysis of a test item. The value range of Item Discrimination is between 0.0 and 1.00. The higher the value, the higher the discrimination of the item.

The formula used for investigating item discrimination of multiple choice test items is as follows:

$$\text{Item Discrimination} = \frac{\text{High group \# correct} - \text{low group \# correct}}{1/2 \times \text{total of two comparison group}}$$

The formula used for investigating item discrimination of essay test items is as follows:

$$\text{Item Discrimination} = \frac{Sh - Sl}{N(Scmax - Scmin)}$$

Sh = Correct answers for upper group

Sl = Correct answers for lower group

N = Number of subject taking the test

Scmax = Maximum score given to an item

Scmin = Minimum score given to an item

3.6 Try-outing The Test

After doing some analysis of the product, the researcher will do some revisions towards that product. Analysis result gotten from the data analysis, will be revised as well as possible. For each items which do not appropriate with the ideal criteria, will be revised as well as possible.

A revised reading test will be tried out to seventh grade students of 7J class at SMP Negeri 1 Cerme. By considering the expert suggestion, a revised test is ready to apply at classroom teaching.

3.7 Scoring and Grading

a. Scoring

In scoring multiple choice items, the correct answer will get 1 (one) score and 0 (zero) for the wrong one. The total number of multiple choice question item is twenty five thus the maximum score for multiple choice test is twenty five. The formula used for calculating multiple choice items score is as follows:

$$\frac{\text{Correct answer score}}{\text{Total answer score}} \times 50 = \text{Score for multiple choice items}$$

In scoring essay items, scale used to determine the students score. 3 score is given to the students whose answers include all points needed with an acceptable grammar. 2 score is given to the students whose answers include most points required with an almost poor grammar. 1 score is given to the students

whose answers are incorrect. 0 score is given to students who did not answer the question at all. The formula used for calculating essay items score is as follows:

$$\frac{\text{Correct answer score}}{\text{Total answer score}} \times 50 = \text{Score for essay items}$$

The final score of test will get by sum up the score of multiple choice item and the score of essay items.

b. Grading

In determining grading based on students score, the researcher uses norm-referenced. As mentioned before, in norm-referenced to decide students grade, the students' score is interpreted based on the normal scores. A score will be given to 2 % of students lying on 2 standard deviation (2 S) and above. B score will be given to 14% of the students lying between the first and second standard deviation (+1 S up to +2 S) above the mean. C score will be given to 68% of the students (34%+34) which lying from -1 Standard deviation (S) to +1 students. D score will be given to 14% of the students lying between one standard deviation below the mean (-1 S) and two standard deviation below the mean (-2 S). E score will be given to the other 2% of the students lying on -2 Standard Deviation (-2 S) below.

4 Analyzing the students' perception toward the product

In analyzing the students' perception toward the product of reading test, the researcher use questionnaire. The questionnaire is given to thirty four students who doing the test. The items are about the evaluation of the product, the memory by using the product, the impression of using the following product.

The data are treated in a table using a formula:

$$P = \frac{F}{N} \times 100 \%$$

Annotation:

P = Percentage

F = Frequency

N = Total of participants