

## **CHAPTER III**

### **RESEARCH METHOD**

In this chapter, the researcher presents about research design, data sources, data collection, and data analysis.

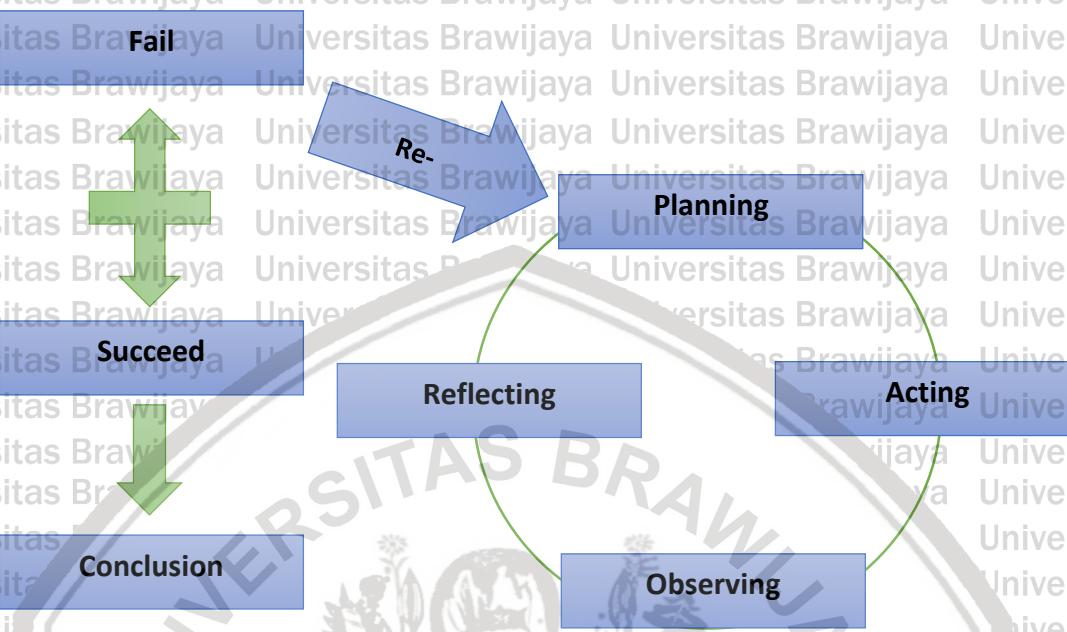
#### **3.1 Research Design**

This research was conducted by using classroom action research. Classroom action research is a kind of research which is used to examine teachers' technique or methodology, solve problem, and do an innovation in their teaching. Classroom action research is a practical research which means to repair learning activities in the class by an action to search answer about the problem happens in the classroom. The problem should be the factual problem or real faced in the field (Wahidmurni, 2008).

According to Kemmis and McTaggart (1992) in Cohen, et.al (2000) about the definition of action research, mentioned that action research is an approach to improving education by changing it and learning from the consequence of changes. It is participatory which people work towards the improvement of their own practices (and only secondarily on other people's practices). In addition, action research develops through the self-reflective spiral. It means that there are cycles in the research.

Those are planning, acting (implementing plan), observing (systematically), reflecting... and then re-planning, further implementation, observing and reflecting.

The steps of action research:



Adapted from Kemmis & McTaggart 1992

Figure 3.1 Steps of Classroom Action Research

In this research, the researcher acted as a teacher in the first meeting of the cycle

and an observer in the other meetings of the cycle who observes the classroom

condition. While the English teacher as a teacher in the second until the last meeting of

the cycle who teaches reading comprehension of descriptive text by using discovery

learning method to the students. In other words, this classroom action research can be

called as collaborative action research.

### 3.1.1 Research Procedure

In this research, the research procedure was conducted with preliminary study

and was followed by planning, implementing the technique, observing the data, and

reflecting the implementation of the technique. The preliminary study was conducted

to know the problem in the class. The researcher repeated the cycle until the criteria of

success was met. When the cycle was success, the researcher stopped the research and

vice versa when the cycle failed, the researcher needs to re-plan the cycle based on the

result of the reflection to avoid the same problem happen in the next cycle. The

procedure of this research can be seen in figure 3.2.

#### Preliminary study:

- Identify setting of the research at SMK Negeri 12 Malang
- Interviewing the English teacher by giving some questions related to students' difficulties in reading comprehension and teacher's difficulties in teaching reading comprehension
- Giving test (pre-test) to the students to know their reading comprehension
- Interviewing the students (some students who has low score in the test) by giving some questions about their difficult in reading comprehension

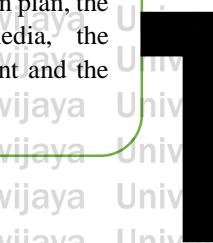
#### Analysis and finding from preliminary study:

- The students had problems in reading comprehension
- Only 25% or 8 students in the class who passed the passing grade (75)
- Decide the strategy used to improve the students' reading comprehension

#### Planning:

- Planning the lesson plan, the material, the media, the research instrument and the criteria of success

- Teaching reading about descriptive text using Discovery Learning Method



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**Observing:**

- Collecting the data by using observation checklist, questionnaire and test (post-test).

**Reflecting:**

- Analyzing the data and comparing the result of the data with the criteria of success

**Successful**

The research stopped

**Unsuccessful**

The research continue to the next cycle



Figure 3.2 The Procedures of Classroom Action Research

### 3.1.1.1 Preliminary Study

In the preliminary study, there were three instruments that the researcher used

in order to know the problem in the class. Those instruments are interview, reading comprehension test in the form of the pre-test, and informal classroom observation.

The researcher conducted a pretest for all students of X accounting 1 in SMK Negeri

12 Malang and some interview guide questions for English teacher and students.

At the starting stage of the preliminary study, the researcher did the interview

with English teacher by giving 5 questions in Bahasa Indonesia about students' reading

comprehension and teacher's difficulty in teaching reading comprehension (see appendix 6a). After conducting the interview with English teacher, the researcher

conducted a pre-test for the students and informal classroom observation. The test was

set to know about reading comprehension score of the students. It consisted of 10

questions in the form of multiple choice and essay (see appendix 2). In interviewing

the students, the researcher chose two students who had low score in reading

comprehension test (pre-test). The interview consisted of 5 questions in Bahasa

Indonesia about the student's experience in learning reading comprehension and their

difficult in learning English (see appendix 3).

### **3.1.1.2 Planning**

Planning was a step which was done after identifying students' problem in the

classroom. In this research, the researcher made plan based on the problems found in

the preliminary study. The researcher prepared the things in dealing with teaching

method to solve problems by discovery learning method to improve students reading

comprehension in descriptive text and the research instruments.

The activities in this step included like providing instructional strategy to solve

the problems through designing the model of lesson plan, organizing some activities,

media and material. Then, the researcher prepared the observation checklist and

questionnaire. It was continued by determining criteria of success through

implementation of discovery learning method.

The lesson plan were constructed based on the syllabus 2013 used by SMK

Negeri 12 Malang. The lesson plans consist of standard competence, basic competence

and indicators, learning objective, learning material, teaching method, teaching and

learning activities, assessment, sources and appendices (see appendix 4a & 4b). The

researcher conducted this research in two meetings for each cycle. The topic for first

cycle was descriptive text about place and the second cycle was descriptive text about historical building.

### 3.1.1.2.1 Material

The researcher used descriptive text as the material in this research. In the English syllabus of the curriculum 2013 for tenth grade students, descriptive text learned by the students in the second semester. In descriptive text lesson, the students learned about describing people, places, and historical buildings. The students taught by the English teacher about generic structure of the descriptive text such as identification and description. Also, the student learned about the language features used in the descriptive text such as present tense, adjectives, linking verb, and comparative degree.

The material chose by agreement from researcher and teacher. The researcher chose the materials from English textbook "*Look Ahead: An English Course for Senior High School Students Year X*" and also from internet downloaded. The material are about places and historical buildings (see appendix 4a & 4b).

### 3.1.1.2.2 Lesson Plan and Media

A lesson plan is a teacher's plan for teaching a lesson. It aims to outline the plan for a single lesson. Lesson plan is the teacher's guide for implementing a particular lesson, and it includes the goal (what the students are supposed to learn), how the goal

will be reached (the method, procedure), and the way of measuring how well the goal is gained (test, worksheet, homework, and etc) (Hamm, 2009).

In this research, the lesson plan was designed by collaborating with the English

teacher in SMK Negeri 12 Malang. The lesson plan constructed based on the syllabus

2013 for the tenth grade and using discovery learning method as the technique in the

teaching and learning process. In the lesson plan, some aspects were planned by the

researcher and the English teacher such as time allocation, steps in teaching activities,

kind of assessment, and teaching media. Time allocation of the lesson plan is  $2 \times 40$

minutes in each meeting. Steps in teaching activities are pre activities, whilst activities

and post activities. The researcher and the English teacher made reading

comprehension assessment for the students during the lesson. The reading assessment

was about descriptive text and teaching media used during the lesson is visual (picture

and power point slide) (see appendix 4a & 4b).

### 3.1.1.2.3 Criteria of Success

The criteria of success in this research were emphasized on teaching and

learning process and improvement of the students reading comprehension. Based on

the English teacher's suggestion, the criterion was determined at least 70% of the

students passed the Minimum Passing Grade (KKM) with the score is 75 in reading

test of descriptive text. When the research did not meet the criteria, it could be called

as not successful yet and it needed an improvement to meet the targets.

### 3.1.1.3 Implementing the technique

In implementing the technique, the researcher collaboratively conducted the research with the English teacher. Burns (1999) states that collaboration is a working practice together for individual work to a common purpose to achieve objective of the practice. It means that an individual work should be conducted together in order to achieve the objective of the practice.

In this steps, the researcher carried out the action based on the lesson plan that has been made. In the first meeting, the researcher acted as the English teacher who taught reading comprehension in descriptive text by applying discovery learning method and for the rest of the meetings the researcher acted as the observer for all activities that happened in the teaching and learning process. The collaborator in the first meeting acted as the observer for all activities that happened in the teaching and learning process, and at the rest of the meetings, the collaborator acted as the English teacher who taught reading comprehension in descriptive text by applying discovery learning method. It involve two meetings in each cycle.

#### a. Implementing the technique for cycle 1

In the first cycle, there were two meetings with the implementation of discovery learning method. At the first meeting, in the stimulus stage of discovery learning method, the researcher gave the students an example through power point slides of descriptive text which was talking about place to build student's schemata about place in the world and the students were asked to explain about what happened in the text.

After that, in the problem statement stage of discovery learning method, the researcher

gave the students opportunity to ask the question about descriptive text that had already

given by the researcher. Then, in the data collection stage of discovery learning method,

the teacher gave the students a handout about generic structure of descriptive text and

the researcher asked the students to identify the generic structure and language features

of the text in the handout. The teacher also asked the students to distinguish the

descriptive text about people and descriptive text about place. In the data processing of

discovery learning method, the teacher asked the students to make a group consists of

two or three persons and asked the students to explain main idea of the text, identify

the text, and determined the generic structure and language feature of the text trough a

worksheet that the researcher gave for the students in each group. In the verification

stage of discovery learning method, the teacher asked the students to communicate their

work in front of the class and in the generalization stage of discovery learning method,

the researcher and the students discussed the material that already given by the

researcher. In the final stage or reflection of discovery learning method, the researcher

did a summing up activity and gave the students a homework.

In the second meeting and stimulus stage of discovery learning method, the teacher

asked the students to summarize the material that they had already had in the previous

meeting and then the teacher also gave a power point slides in front of the class through

LCD projector to make the students easier in summing up the material. After that, in

the problem statement stage of discovery learning method, the teacher gave the students

opportunity to ask some questions about the material through handout that had already

been given in the previous meeting. Then, in the data collection stage of discovery

learning method, the teacher asked the students to find a place that they had already

visited in the previous time and gave the information about that place. The teacher also

asked the students to compare their experience when the students visited that place. In

the data processing stage of discovery learning method, the teacher asked the students

to make a descriptive text which consisted of two paragraph about the place that they

already visited and the text should be consist of generic structure and language feature

of descriptive text. In the verification stage of discovery learning method, the teacher

asked the students to read the text that they had made in front of the class and received

some feedback from the teacher and his/her friends in the class. In the generalization

and reflection stage, the teacher and the students did a summing up activity together

and the teacher gave post-test for the students.

### b. Implementing the technique for cycle 2

In the second cycle, there were two meetings in the implementation of discovery

learning method. At the first meeting of cycle 2, in the stimulus stage of discovery

learning method, the teacher gave the students an example of descriptive text about

historical place, the students were asked to read the text individually by the teacher and

explained what happened in the text. After that, in the problem statement stage of

discovery learning method, the teacher gave the students opportunity to ask some

questions about the text. Then, in the data collection stage of discovery learning

method, the students were shown power point slides about generic structure of

descriptive text along with the example of adjectives for describing buildings. The

teacher asked the students to identify a text that already given by the teacher and

determined the generic structure and language features of the text. Also, the teacher

asked the students to distinguish descriptive text about place and descriptive text about historical building. In data processing stage of discovery learning method, the teacher

asked the students to make a group which consists of four or five people and the

students were asked to play a game entitle “guessing game”. In the verification stage of discovery learning method, each group were asked to communicate their work after

playing game “guessing game”. In the generalization and reflection stage of discovery

learning method, the teacher and the students did a summing up activity and the teacher

gave the students a homework to make a miniature about historical building that they

already visited and the students did a presentation contains of all information about the

building in front of the class for the next meeting.

In the second meeting, the teacher did stimulus and problem statement stage as

usual. The students were reviewed the material from the previous meeting and did

question answer session in the problem statement stage. After that, in data collection

and data processing stage of discovery learning method, the teacher asked the students

to prepare their homework (make miniature about historical building) and their

presentation about the building. Then, in the verification stage of discovery learning

method, each group were asked to do the presentation in front of the class. In the

generalization and reflection stage of discover learning method, the teacher and the

students did summing up activity and the teacher gave post-test for the students at the

end of the meeting.

### 3.1.4 Observing

In the observing, the researcher processed and indicated the data collection with criteria of success. The main data were the students' score in reading comprehension test and students' interest after implementing the technique. The instrument used in this process were reading comprehension score and questionnaire. Video or picture was also used to help the researcher to recall the activity in the class during teaching and learning process.

Then, this step discussed about the process of recording and gathering all the data about any activity occurred during implementation of the action. During the classroom teaching, the collaborator collected the data by using observation checklist. During conducting the observation, the collaborator observed all the activities in teaching and learning reading comprehension in descriptive text.

### 3.1.5 Reflecting

In reflecting, the researcher reflected the data after the technique had been implemented. It aimed to know whether the technique had given some influences toward students' reading comprehension and found the weaknesses and the strengths of the action. The researcher analyzed the data and compared the result score of the action with the criteria of success that had been made by the researcher. The researcher used reading comprehension test in the form of post-test, interview result, questionnaire result, and classroom observation checklist result as the data in this action.

### 3.2 Data Sources

The setting of this research is SMK Negeri 12 Malang. SMK Negeri 12 Malang is located at Jalan Pahlawan, Bale Arjosari, Malang, Jawa Timur. This school chose as field of the research because the researcher had done her teaching practice (PPL) in that school. In this research, the subject was the students of X accounting 1 in SMK Negeri 12 Malang and Miss Kartika Ajeng Anggraeni, S.Pd as the English teacher of the class.

The researcher chose X accounting 1 as subject of the research because based on informal observation and interview in SMK Negeri 12 Malang especially tenth grade, the students had low vocabulary knowledge and low interest in reading. If the teacher gave the students long reading text, they got less interest and motivate. This school is a vocational high school with engineer base. Therefore, the students did reading activities infrequently than practical activities in the school.

### 3.3 Data Collection

As other research, classroom action research also needs to collect the data to support the research. It is important that the researcher should collect the data during conducting the research. In this research, the researcher collected the data from X accounting 1 students of SMK Negeri 12 Malang and the English teacher of SMK Negeri 12 Malang that taught the class. There are some ways or instruments to collect data in this research. There were tests (reading comprehension test), interview, classroom observation, questionnaire, and documentation (video and picture).

Test is a set of questions and exercises used to measure the achievement or

capability of the individual or group (Brown, 2004). This is the most common instrument used to collect data in action research. The researcher used test in this

research to measure students' comprehension in reading descriptive text (see appendix

5a & 5b).

Interview are popular and commonly used in collecting verbal information data.

Although, the interviews are incorporated into the lesson, whenever possible, as an

aspect of the regular activities of the classroom, the interviews can double as a

classroom task and as a way of investigating and collecting data in the setting (Burns,

1999). The researcher used interview in this research before implementing the

technique. It aimed to know about the students' problem in reading comprehension and

the teacher's experiences while teaching reading comprehension in the class. There are

5 open-ended questions which were written in Bahasa Indonesia (see appendix 6a &

6b).

Observation is a mainstay of action research. It enables researcher to document

and reflect systematically during classroom interactions and activities, as they actually

occur rather than as we think they occur (Burns, 1999). In this research, classroom

observation helped the researcher to collect the data and got more information about

the classroom situation. The researcher observed the class using observation checklist

to know whether the implementation of discovery learning method in the class goes

well (see appendix 7)

Other instrument used by the researcher in collecting the data was

questionnaire. Questionnaire offer an alternative form of data collection and it involved predetermined questions presented in written forms (Burns, 1999). In this research,

questionnaire used to know the students' interest in reading. The teacher gave the

students questionnaire before and after applying discovery learning method in the class

(see appendix 8a & 8b). To get the detail information, in this research, documentation

used to help the researcher describe and complete the data. In line with this, the

researcher took video and picture of the classroom situation to record all activities in

the class (see appendix 10).

### 3.4 Data Analysis

In this step, after the researcher finished in collecting the data, the researcher

needed to analyze the data. Data analysis was the process of arranging observation

checklist, questionnaires, and other materials that the researcher obtained during the

implementation of classroom action research. In this research, the researcher intended

to find out whether there was an improvement after the students were taught by using

discovery learning method or not. There are two ways to analyze the data, they are

qualitative and quantitative.

A qualitative data used to investigate the verbal information data which was

collected during the process of action research and to know the students behavior

during teaching and learning process.

Whereas, the quantitative data result in form of numerical data would be

analyzed by comparing the score of pre-test and post-test to know whether there was an improvement of students' reading comprehension or not.

The steps of data analysis are:

1. The researcher conducted pre-test in preliminary study to take the score of students' reading comprehension before discovery learning method would be applied.

2. After discovery learning method had been implemented in teaching reading, the researcher conducted post-test to know whether there were improvements on the students' reading score or not.

3. Then, the researcher selected the data that were considered as valid data. Data would be considered as valid if it had pre-test and post-test score. So if one student only did pre-test or post-test, the score of the student would not be calculated.

4. The researcher gave scores on the result of the students' reading comprehension at pre-test and post-test. It would be analyzed by calculating the score of students' test whether there is an improvement of students' reading comprehension or not.

After the researcher got the students' score, the researcher counted how many students who were able to pass the minimum passing grade or KKM (*Kriteria Ketuntasan Minimal*) of English lesson which are 75. Then, it would be converted in the form of percentage. In gaining the class percentage, the researcher used a

formula by Sudijono (2008). It used the formula as follow:

$P = \text{The class percentage}$

$F = \text{Total percentage score}$

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

N = Number of students

5. After that, the researcher compared the students' scores on pre-test and post-test to know the students' improvement after being taught by discovery learning method.

6. Then, the researcher analyzed the result of students' questionnaire which was given before and after the implementing discovery learning method. This questionnaire was useful to know students' opinion toward the implementation of discovery learning method in reading comprehension.

7. The final step was making report in descriptive analysis form. The researcher gave information using descriptive sentences to show the improvement of students' reading comprehension on descriptive text. In this step, the researcher decided whether the research is successful or not.