CHAPTER III

RESEARCH METHODOLOGY

This chapter covers the method used in this research; in particular classroom participant research design. This chapter also informs the respondent who are participated and how the data are analyzed to find out the finding.

3.1 Research Design

Every research needs a method to make it easier to draw the conclusion and to have a good and satisfied result. Therefore, in order to achieve the objectives of the research, the writer uses a Classroom Action Research (CAR).

Action research consists of three cycles. According to Kemmis and McTaggart, there are four basic steps in the action research. They are planning, acting, observing, and reflecting. In the planning step, there is identify the problems, while in acting and observing steps, the researcher gather data, interprets data, and act on evidence of the research. After that, in reflecting steps, the result of the result is evaluated and it is continued to next cycle. Figure 3.1 shows how the classroom action research works.

The research is employed action research to acquire information of an instructional activity by evaluating and reflecting instructional practice.

> Action research emphasizes the involvement of teachers in problems in their own classrooms and has as its primary goal the in-service training and development of the teacher rather than the acquisition of general knowledge in the field of education. (Borg, 1965, p. 313)
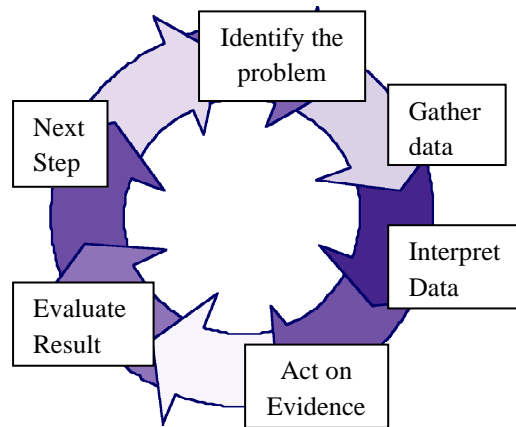
Figure 3.1 Action Research Cycle

Furthermore, action research is a process in which participants examine their own educational practice systematically and carefully, using the techniques of research. It involves the teacher and researcher with a method for solving everyday problems in schools, in order to improve both students and teachers' effectiveness. The teacher has opportunity as model for students not only the skill needed for effective learning but also curiosity at excitement about gaining new knowledge.

The purpose of classroom action research is to provide teacher with a method for solving everyday problems in school, in order to improve both students learning and teachers' effectiveness. The goal of teacher to be professional problem solver who is committed to improve both their own practice and students outcomes provides a powerful reason to practice action research (Gay et al., 2006:499).

Classroom Action Research (CAR) is a study focused on specific problem that occurs in a class. It also focuses on the processes not only just the result. Doing CAR means observing the process of the treatment. It is strongly recommended that an observer watches the process during CAR is conducted. It is done in order to assist teacher sharing the problem of the process and formulating plan for the next cycles.

3.2 Research Hypothesis

Hypothesis is the temporary answers from the research problems until it is proven with the calculated data. In the research, the writer proposes the hypothesis as a follows;   The Action Hypothesis highlights the role of cooperative learning in improving the student's ability in writing, especially in analytical exposition text. The cooperative learning setting in groups and the trust that can grow among group mates make it more likely that student will have opportunities to repair comprehension breakdowns and be able to write the analytical exposition text.

3.3 Population and Samples

According to Singarimbun (1985:115, cited in Nurbayani, 2004), population is the whole subject research; whereas Sumaatmadja (1988:22, cited in Nurbayani: 2004) says that population is the whole individual symptoms, cases, and problems in the research. The population of this research is the second grade students of SMAN 1 Cianjur.

Sample is part of the population. It is part of the population and represents the characteristic or generalization in population, which has to be in the sample. In this research, the writer takes one class as the sample. The subject is the students of XI-IPA 5 in SMAN 1 Cianjur.

3.4 Data Collection

3.4.1   Site and Respondents

The study was conducted in SMAN 1 Cianjur, to the twelve grade students of science program. This setting was chosen because this school is one of the favorite high schools on Cianjur. This institution is accredited A by Education Board of West Java (Dinas Pendidikan Jawa Barat) and SMAN 1 Cianjur is one of International Based Schools (Sekolah Bertaraf International) in Cianjur.

This research was conducted on 22nd October to 30th November 2010. It is divided into two steps; preparation steps and cycles' steps. Every cycle has several activities; planning, acting, observing, and reflecting. Table below describes the time allocation of the research.

Table 3.1 Schedule of the Research

No.	Activities	Time (October-November)					
		Week					
		1	2	3	4	5	6
1.	Preparation						
	Arranging concept of the research	X					
	Pre-test and Problem identification		X				
	Arranging concept of the cycles		X				

2.	Action Research						
	Cycle 1			X			
	Cycle 2				X		
	Cycle 3					X	
3.	Conducting Post Interview					X	
4.	Writing Report						X

3.4.2 Research Instruments

This research employed some instruments to obtain data. The instruments of this research were observation sheet for the teacher and the students, interview, students' journal, evaluation sheet, and writing test.

3.4.2.1 Observation Sheet

Observation was conducted to obtain the data about teacher's and student's activity. The observation form is adapted from Brown (2001, cited in Fithriyani, 2006); Teacher Observation Form A: Observing Other Teacher. The researcher considers that this form as a suitable to enclose the whole observation aspects in this research.

It was divided into five categories. The first category was preparation steps. It had three indicators that specify teacher's activity in the beginning of the instruction. The second category was Presentation. It had thirteen indicators which monitor teacher's preparation in teaching, such as how to plan the lesson, material, class management, worksheet, etc. The third category was Execution method. This category had twelve indicators which showed the teacher organizes the students and delivered the material of the lesson. The forth category was

Personal characteristic. It had five indicators which monitors teacher's personality and action in the class. The last category was Teacher/Students Interactions. This category had seven indicators which indicated how teacher and students worked together in instructional activities.

Meanwhile, the students' observation sheet was made to measure the activity of the students during the instructional process. The observation sheet was used to know students' response toward the cooperative learning model in teaching writing. It consisted of three categories; interest, attention, and participation.

3.4.2.2 Interview

Interview was conducted to gather the detail information from the respondent. It was divided into two part; pre-interview and post-interview. The pre interview was conducted in preparation step; it was carried out before the cycle began. It has 10 questions relate to students' difficulties in writing and also about their opinion toward cooperative learning method (see appendix for detail). The result of the interview was used for a basis to start the first cycle.

The post interview was conducted after all of the cycles. It was carried out to get the students' perception toward study writing through cooperative learning method. The interview had ten questions about students' views advantages, weaknesses, and motivation during learning writing through cooperative learning method (see appendix for detail).

3.4.2.3 Students' Journal

The journal was given to the students after each cycle to get students' opinion about learning activities. This students' journal helps the teacher to improve the instructional learning activities.

Students' journal consisted of five questions. The first question asked student's opinion about the instructional learning in one meeting. The second question, the students were asked about their view toward cooperative learning method, and for the next question, it was concern to the teaching performance in conveying the material, and the students were asked to give their suggestion for the next instructional (see Appendix for detail).

3.4.2.4 Evaluation Sheet

Evaluation sheet was given to know students response toward cooperative learning model in teaching writing. It measured how far cooperative learning method helped them to improve their ability in writing, especially analytical exposition text.

Evaluation sheet had eight questions. It was concern to the students' activity in cooperative learning method. All of questions asked the student's roles with their team mates (see Appendix for detail).

3.4.2.5 Writing Test

Tests consisted of four tests, there were pre-test, post-test in cycle 1, post-test in cycle 2, and post-test in cycle 3. For the pre-test, it was conducted before

the cycle began. It used to measure the prior knowledge of students' writing ability before the classroom action research was conducted. Pre-test is conducted without cooperative learning method. Whereas, post-test in cycle 1, post-test in cycle 2, and post-test in cycle 3 were conducted after each cycle finished.

The entire test was about the theme which was given by the teacher. They were performed to see whether cooperative learning method gave an improvement in students' writing ability based on the cognitive score or not and to what extend the score improved after comparing all of the tests.

Post-test was conducted to see how far students' understanding toward the material and to what extend the cooperative learning method improved the students' ability in writing, especially analytical exposition text. The students were considered to be successful if they got 75 as like as Minimum Mastering Criteria.

The following indicator was made to measure students' score improvement by the teacher.

Table 3.2 Improvement Score

No.	Scale	Description
1.	$90 \leq A \leq 100$	Excellent
2.	$80 \leq B \leq 89$	Satisfactory
3.	$70 \leq C \leq 79$	Average
4.	$60 \leq D \leq 69$	Unsatisfactory
5.	$50 \leq E \leq 59$	Very Bad

3.5 Procedure of the Research

The research was employed action research that comprised some processes which was divided into three cycles; planning, acting, observation, and reflecting. There were several activities in each cycle, and in the end of each cycle, there was an evaluation for a better one. This research also helped by observer. This collaboration gave contribution to this research.

3.5.1 Preparation

The first step of this research was preparation. The teacher as researcher looking for the detail information about the sample of the research, in this case was the second grade of science program at SMAN 1 Cianjur (XI IPA 4). The teacher conducted this step before practicing the first cycle. Then, she prepared the administration letter and arranged the concept of the cycle.

3.5.2 Planning

In this step, teacher arranged the concept of the cycle. She planned acting which would be given in next meeting. This step was conducted after she found out the detail information of the sample. The teacher also made a lesson plan and material which would be delivered in class.

3.5.3 Acting and Observation

In this step, the teacher implemented planning of the research and it watched by the partner of the teacher, how she implemented her planning by

ticking the observation sheet. In this step, the teacher must organize time effectively and used the method. This observation was important to analyze everything that happened in the class during implementing the instructional planning in each cycle.

3.5.4 Reflecting

In reflecting step, the teacher and partner discussed together to find out weaknesses and solve some problem that were found in previous step and looked out for strategies that would be used in the next cycle. The teacher and partner used observation sheet, student's journal, and also worksheet of the student to reflect each step and the revision was aimed to improve instructional activities of writing ability in the next step.

3.6 Data Analysis

The research used both quantities and qualitative data analyses. The quantitative method was used to analyze the data from the activity of the students which used analysis of descriptive statistic in scoring system. Meanwhile, the qualitative method was used to analyze the data from observation, student journal, interview, evaluation sheet, and students' writing test. The data from quantitative and qualitative method were then compared and matched to give the final conclusion of the research.

The process of data analysis began from preparation step to the last cycle. The process of cycle was described in this process. It was consist of planning, acting,

observation, and reflecting. The data were collected from observation sheet, interviews, student's journal, evaluation sheet, and students' writing test.

3.6.1 Analysis Data of Students' Writing Test

3.6.1.1 Scoring Technique

There were some criteria in assessing students' composition works, content, organization, vocabulary, grammar, and mechanics. The Analytic Scoring (taken from Cohen, 1994) was used for comparing students' score in every cycle. This technique was described quantitatively. This scoring system was used to give very specific range and criteria in each aspect of writing so that it makes the teacher easier to give the scores.

The total score of this profile ranges from 34-46 as the lowest and 90 to highest. For more detailed, table 3.3 provide scoring standard ESL composition profile.

The Scoring Standard of ESL Composition Profile

Aspect of Writing	Range	Score	Criterion
Content	30-27	Excellent to very good	Knowledgeable – substantive – thorough development of thesis – relevant of assigned topic.
	26-22	Good to average	Some knowledge of subject – adequate range – limited development of thesis – mostly relevant to the topic, but lack in detail.
	21-17	Fair to poor	Limited knowledge of subject - little substance – inadequate – development of topic.

	16-13	Very poor	Does not show knowledge of subject – non-substantive – or not enough to evaluate.
Organization	20-18	Excellent to very good	Fluent expression – ideas clearly – stated/supported – succinct – well-organized – logical sequencing cohesive.
	17-14	Good to average	Somewhat choppy – loosely organized but main idea stands out – limited support – logical but incomplete sequencing.
	13-10	Fair to poor	Not fluent – ideas confused or disconnected – lack logical sequencing and development
	9-7	Very poor	Does not communicate – no organization – or not enough to evaluate.
Vocabulary	20-18	Excellent to very good	Sophisticated range – effective words/idiom choice and usage – word from mastery – appropriate
	17-14	Good to average	Adequate range – occasional errors of word idiom choice, usage but meaning not obscured.
	13-10	Fair to poor	Limited range – frequent errors of word/idiom form, choice, usage – meaning confused or obscured
	9-7	Very poor	Essentially translation – little knowledge of English vocabulary idioms, word form – or not enough to evaluate
Language use	25-22	Excellent to very good	Effective complex construction – few error agreement, tenses, number, word order/function, article, pronouns, preposition.
	21-18	Good to average	Effective but simple constructions minor problem in complex construction – several errors of agreement, tenses, number, word

			order/function, article, pronouns, preposition, but meaning seldom obscured.
	17-11	Fair to poor	Major problems in simple/complex constructions – frequent errors of negation, agreement, tense, number, word order/function, article, pronouns, preposition, and/or fragment, run-ons, deletions – meaning confused or obscured.
	10-5	Very poor	Virtually no mastery of sentence construction rules – dominated by errors – does not communicate – or not enough to evaluate.
Mechanic	5	Excellent to very good	Demonstrate mastery of conventions – few errors of spelling – punctuation – capitalization – paragraphing.
	4	Good to average	Occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured.
	3	Fair to poor	Frequent errors of spelling, punctuation, capitalization, paragraphing – poor hand writing – meaning confused or obscured.
	2	Very poor	Dominated errors of spelling, punctuation, capitalization, paragraphing – or not enough to evaluate.

In additional, this study, there was a rater to help the researcher assessed the students writing composition. It helped the teacher in achieving the objectivity of assessment. The written tests scores were assessed based on the mean of the total scores of two raters.

3.6.2 Descriptive Technique

Some data in this research needed deeper information that may be difficult to convey in scoring technique. Gay (1987, cited in Fithriyani, 2006) states that descriptive data are regularly gathered through interview, and observation. Therefore, descriptive study was used for the following instruments.

3.6.2.1 Analysis of Instructional Process

This process carried out to analyze the observation sheet. This form described teacher and students' activity in the classroom. The data were analyzed to obtain deeply information the instructional activity and to evaluate the instruction in every cycle.

Teaching learning program was conducted from 1st November 2010 until 30th November 2010 (four weeks). The observation was conducted at eight meetings. In this case, the researcher participated fully in the activities of the group being researched (Goetz and LeCompte, 1984, cited in Wiriatmadja, 2008). Since, the researcher acts as the teacher during implemented Cooperative Learning method, the partner as observer keep to observe the teacher in observation sheet.

The researcher conducted some step to gathered data from observation:

1.   Trying to record complete events happened in the classroom into notes which recorded teacher's preparation, the presentation, and the method of instructional process, students and teachers' interaction.

2.   Analyzing and interpreting the information about the teacher and students'

activities such as students' behavior in doing tasks and the teacher's roles during

the teaching learning process.

3.6.2.2 Analysis of Interview

There were two sections of interviews, pre-interview and post-interview.

The pre-interview conducted to find out the students' difficulties in writing and

their perception toward group work activity. The post interview was conducted to

find out students perception on learning writing through cooperative learning in

each cycle.

To analyze the result of the interview, the researcher conducted some

steps:

1. Transcribing the data from interview into written text,

2. Analyzing the data from interview into students' progress in writing during the

implementation of cooperative learning method and student's response toward the

teaching learning process.

3. Interpreting the data to address the research question.

3.6.2.3 Analysis of Students' Journal

The journal was given to students after each cycle. This journal helps the

teacher improved her instructional activities through their views toward the

instructional activity and material. It covered students' opinion, suggestion, and

impression. This instrument was only additional data to complete the research findings (see Appendix for detail).

To analyze the result from student's journal, the researcher conducted some steps:

1. Collecting the data from the students' journal,

2. Analyzing the data from students' journal into students' progress in writing during the implementation of cooperative learning method and student's response toward the teaching learning process.

3. Interpreting the data to address the research question.

3.6.2.4 Analysis of Evaluation Sheet

In evaluation sheet, it showed response of the students toward cooperative learning method. It measured how far cooperative learning method helped them to improve their ability in writing, especially analytical exposition text.

To analyze the data from evaluation sheet, the researcher gathered the data, then it was analyzed and interpreted to address the research question.