# CHAPTER III

# RESEARCH METHODOLOGY

This chapter presents the methodology which is used in the research. It consists of research type, setting of the research, subjects of the research, data and technique of data collection, data analysis, validity and reliability of the research and procedure of the research. Each of the items above will be presented in the discussion below.

**Research method**

This research was conducted by using the principles of classroom action research. It is a form of self reflective investigation undertaken by participants in social situations in order to improve the rationality and justice of their own social and educational practices (Carr and Kemmis, 1986). Its major focus is on concrete and practical issues of immediate concerns to particular social groups or communities (Burns, 1999). In addition, action research can provide the teacher to develop their professional competence as well as improve students' learning through action research (Whitehead and McNiff, 2006). Besides, action research emphasizes its potential to empower and emancipate participants through cycles of reform based on reflection and action (McDonough, 2006).

Since it engages the participants of a certain environment to involve in solving the issue, the collaboration among the participants is possible to happen through several steps to be taken. That is the reason why action research becomes a collaborative approach to inquiry that provides the participants with the means to get involved in systematic action to resolve specific problems (Stringer, 2007).

The aim of this research was to describe the process of the improvement of students' writing skills which was completed in two cycles during the half semester in the second year of participants' study. The researcher and the English lecturer as a team research have worked collaboratively in conducting the research by using the values of integrated approach for collaborative writing. Moreover, this research was putting pedagogical action research into university context where the researcher herself could not do the overall research without supports from the collaborator. The researcher taught the overall materials while the English lecturer did collaboration in the implementation of the integrated approach for collaborative writing by following the research through the steps of action research: plan, act, observe and reflect. Therefore, to meet the aim of this research, there were some steps taken, namely planning, action, observation, and reflection (Kemmis and McTaggart Burns, 2010). The following figure presents the concept of action research.
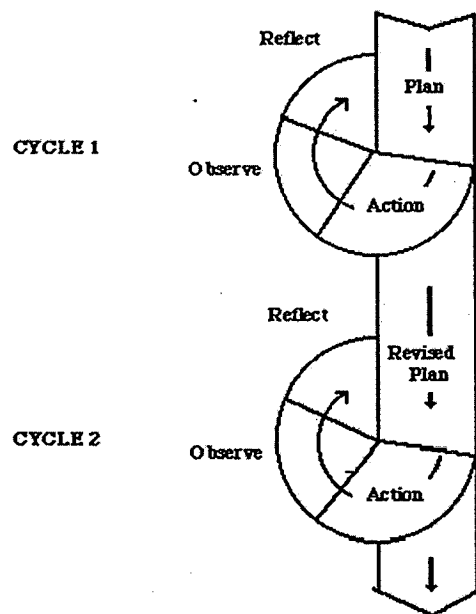
Figure 4 Simple action research model by Kemmis and McTaggart

**Source:** Cited in Burns, 2010

1. Planning – develop a plan of a certain critically informed action to improve what is already happening.

2. Action – act to implement the plan that has already determined.

3. Observation – observe the effects of the important informed action in the context in which it occurs.

4. Reflection – reflect on the effects as the basis for further planning through succession of stages.

**Setting of the research**

The research was conducted at one private university in Indonesia. It was located in Yogyakarta, one of the biggest cities in Indonesia. The location was chosen because there were a lot of private universities which offered English Department as one of major studies. However, the English major offered by those universities still could enhance the quality of the under graduate students taking the English major, especially in their skills of writing.

**Subjects of the research**

The main subject of this research was the students in a private university in Indonesia in the academic year of 2013/2014. There were 20 second-year under graduate students in their fourth semester. The students were 14 females and 6 maleswho share the same first language background, Indonesian. The students were passed the previous writing courses in their third semester; therefore there is no variation in the English proficiency level.

**Research instruments**

1. Observation

Observations of the teaching and learning process gave the researcher any kind of information needed. It is used to check the application of integrated approach for collaborative writing technique in teaching and learning process. The observation was done by collaborator and the researcher.

2. Interview

Interview was conducted to find out the important information from the participants in this study. It was done before the implementation of the study, at the end of the cycle I and at the end of the study. Interviewing guideline was also used as a guide when the researcher conducted interview with the students and collaborator during the research. Therefore, the interview would be in the right procedure.

3. Writing task

Students' writing task helped the researcher to get information about students' writing skills after the technique of integrated approach for collaborative writing has been applied on students' writing. It showed whether there was improvement of students' writing skills or not during the action of the research. The writing tasks were given in the beginning of the research before the implementation of the research and at the end of the implementation of the research. The tasks were on the same genre which was an argumentative text.

**Validity and reliability of the research**

To make the data valid, the researcher will use kinds of validity proposed by Burns (1997). According to Burns (1997), there are four types of validity, namely: democratic validity, outcome validity, process validity, and dialogic validity. In this researchto fulfill the validity of the research and due to the feasibility to conduct the research, the researcher used two types of validity. The following criteria were presented in the following discussion.

1. Process validity

Process validity means that the actions are believable. To get the process validity, the researcher collected the data by doing observation and added note during the research. In this research, the process was done in two cycles and each cycle consisted of planning, actions and observation, and reflection steps. The process also involved some different data sources and will be followed by some evidence that showed the believable process.

2. Dialogic validity

Dialogic validity means that stakeholders who involve can take part in the process of the research. This research involved the lecturer as the collaborator who observed the research process.

The researcher also used the triangulation to meet the reliability of the research as well. The reliability of the research was obtained by giving genuine data. The triangulation Burns (1999, pp.163-164) mentioned kinds of triangulation namely time triangulation, space triangulation, investigator triangulation and theoretical triangulation. However, the researcher used only one of them which are described as follows.

2.1 Investigator triangulation

In addition to the researcher, there was one more observer in this research in the same setting. This could avoid the observer's bias and provide checks on the reliability of the observation.

2.2 Inter-rater reliability

Inter-rater reliability was done when the results of the students' scores were marked by three different raters. The aim of accompanying three different raters in this research was to get the data from different sources.

**Data and technique of collecting data**

In the action research, there are two main sources for collecting the data. The first is observational data, which can be observable by the researcher. It can be in the form of observation, field notes, recordings, transcripts, photographs, maps/ diagrams and documents. The second type is non-observational data. The data can be in the form of journal/diary, survey/questionnaires, interviews, narratives, discussions, and protocols.

In this study, to collect the required data the researcher attained the data from observational and non-observational data as discussed below.

**Observational data**

Classroom Observation

The English lecturer as the collaborator and the researcher as the teacher who implemented the application of integrated approach for collaborative writing observed

the teaching and learning process and students' progress in writing. For the collaborator, observation sheets are also used on this process to see whether the researcher has applied the whole steps in the technique conducted.

Observation

Observation methods are prevailing tools for gaining insight into situation (Cohen, et al., 2007). In this respect this study gathered the observation with other employed instruments to get the data during the research. The observation checklist of this study was adapted the Flanders Interactions Analysis Categories (FIAC) attempting the validity of the instrument.

**Table 2 Flanders Interaction Analysis Categories (FIAC)**

| Teacher talk indirect influence | 1. | Accepts feelings: accept and clarifies the feeling tone of the student in a non-threatening manner. Feelings may be positive or negative. Predicting and recalling feelings are included. |
|---|---|---|
| | 1. | Praises or encourages: praises or encourages student action or behaviour. It is to release tension, for example by showing gestures like nodding or saying "go on" etc. |
| | 2. | Accepts or uses ideas of student: clarifying, building or developing ideas or suggestions by a student. |
| | 3. | Asks questions: asking a question about content or procedure with the intent that a student answers. |
| Direct Influence | 4. | Lectures: giving facts or opinion about content or procedures, expressing his own idea; asking rhetorical questions |
| | 5. | Gives directions: directions, commands or orders with which a student is expected to comply. |
| | 6. | Criticizes or justifies authority: statements, intended to change student behaviour from non-acceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference. |
| Student talk | 7. | Student talk-response: talk by students in response to teacher. Teacher initiates the contact or solicits student statement. |
| | 8. | Student talk-initiation: talk by students, which they initiate. If 'calling on' student is only to indicate who may talk next, observer must decide whether student wanted to talk. If he did, use this category. |
| | 9. | Silence or confusion: pauses, short periods of silence, and periods of confusion in which communication cannot be understood by the observer. |

By adapting the categories from FIAC, the observer could see whether such interaction happens in the classroom. If some other information especially non-verbal aspects of communication were not covered by these categories, the observer added the information in the blank column provided in the observation checklist sheet.

Documents

In this study, the main data used was the students' writings. Students' writing tasks have been given twice, at the beginning of the research as the pre-test before the implementation and at the end the research as the post-test after the whole process of action research. Those writing tasks were equally similar in terms of the content, length, and the genre of the text to make sure that the students' performance to write the text would improve.

Some supporting documents in this research were obtained through several types, such as: the course syllabus, lesson plans, students' writing, classroom materials/texts, and assessment tasks/texts. The course overview or syllabus was based on the one that was used by the institution in which the research takes place. Then, the researcher developed the lesson plans based on the course overview. The classroom materials and texts were also included along with the lesson plans. In addition to those types of document, the writing tasks produced by the students were also included.

Interview

The last instrument used in this research was the interview. The interviews were done three times during the research: before the implementation, at the end of cycle I and at the end of cycle II. The blueprint of the interview was used as the outline of the questions delivered by the researcher to the interviewee, in this case, the students and the English lecturer (collaborator).

The semi-structured interview was conducted and 15 interviewees were randomly chosen from each of students' groups. Then, the researcher transcribed the interview into interview transcript. Since the interviews were in students' L1, the researcher translated the language into English when presenting them in the research report as the final data.

**Data analysis**

The data were obtained from the actions conducted in the field. The data were analyzed from the results of observation, interview transcripts, and writing scores. The data in this research were qualitative in nature and were also supported by the quantitative data. To analyze the data, the researcher used qualitative and quantitative descriptive analysis.

1. To obtain the qualitative data, the researcher described the process during the action, interview transcripts, observation and students' writing. Firstly, the researcher looked up the findings as genuine data, in this case, the observation during the teaching and learning was implemented. It was done to meet the process validity. Additionally, the researcher and the collaborator shared their own opinions, ideas, and comments about the implication of the action research. It was useful to avoid subjectivity in analyzing data and getting trustworthiness.

2. To attain the quantitative data, the researcher applied a writing test in the end of each cycle. The scores from the test were used to acquire the data by comparing the mean scores of students writing on each writing aspect. The writing test scores were presented using Jacobs et al.'s scoring profile. The data was analyzed based on quantitative data analysis. The results were compared in pre-test and post-test. The researcher used SPSS 16th series to apply the test of normality and paired samples $t$-test. The paired samples $t$-test used to see whether a difference between the means of two scores is significant (Salkind, 2010). The $t$ value can then be used to determine whether there was improvement of the students' score in their pre-test and post-test. In this study, it was compared each writing aspect and overall scores on pre-test and post-test to see the differences before and after the implementation of the research.

To ensure that the data were under the parameter of validity and reliability, the matrix below is provided.

| Research Questions | Instruments | | | | | | |
|---|---|---|---|---|---|---|---|
| | Observation Sheet | | Interview | | Ss' Writing | | |
| | C | R | C | S | C | R | E |
| What is the nature of integrated approach in L2 students' writing skills through collaborative writing? | √ | √ | √ | √ | √ | √ | √ |
| To what extent does Collaborative writing improve students' writing skills? | | | √ | √ | √ | √ | √ |

**Note:**  C: Collaborator/ Rater II

E: Expert/ Rater I and III

R: Researcher

S: Students

## Procedure of the research

1. Determining the Thematic Concern-Reconnaissance

The researcher carried out the reconnaissance step to get the information related to students' writing skills. First, the researcher did preliminary observation about the teaching and learning process in the writing course taken by students of English Department in one of private universities in Indonesia. It was to identify problems in students' writing skills and to develop a plan of action in order to bring about improvements in students' writing skills. In addition to observation, the researcher planned to provide pre-test on writing skills to see students' performance on their writing in terms of five aspects of writing. The score was given by three raters to avoid bias.

These observation and students' writing score were aimed at finding out the strategic plan to solve problems. In this case, the researcher applied the integrated approach to collaborative writing to overcome the problem found. Therefore, the data gathered were based on the observations and interviews which showed obstacles and weaknesses in students' writing.

2. Planning

After the researcher identifying the problems related to the students' writing skills, she made some plans to decide what actions that was feasible to be applied in the field. In planning the actions, the researcher worked together with the English lecturer of writing course in the university. Before the plans were implemented, the researcher and the English lecturer arranged the schedule of the action. Then, the technique to solve the problems they face was also prepared. The materials and other sources of all about writing were collected based on related references and experience. Then, all plans were discussed with the collaborator.

3. Actions and Observation

The action was conducted by the researcher whereas the English lecturer observed during the teaching and learning process. The researcher applied the integrated approach for collaborative writing technique to improve students' writing skills. It was employed in two cycles. Then, the researcher and the English lecturer analyzed the changes during the implementation on each cycle. Responses and suggestions were also given by the English lecturer in this evaluation process. The influences of the implementation on the students' involvement were identified. The results of the identification, finally, determined whether there was improvement on students' writing skills. The results of this evaluation were considered for the reflection in the next step.

4. Reflection

After the researcher applying the actions completely, the researcher and the collaborator identified the relation between the action and the problems based on the evaluation. The researcher asked help to the English lecturer as the collaborator to observe the class activities. The researcher observed and take notes of anything happened in the class. Based on the observations and notes of the students' responses in the actions, the researcher and the collaborator discussed the implementation of the

actions. The researcher and the collaborator did reflection in order to find the way to improve the use of integrated approach for collaborative writing in improving students' writing skills.

5. Evaluation

In the end of the class, the researcher needed to do evaluation in order to get the information about students understanding toward the materials given. Evaluation covered two main parts: observation and students' writing. Observation was best done throughout the entire teaching and learning process. The score of students' writing was gain by using writing rubrics - scoring scheme must be referred to five writing aspects (content, organization, vocabulary, language use and mechanics). To see the improvement of the students' writing, the mean scores from the pre-test and post-test was finally compared.

The researcher gave two tasks in this research which were the result of students' collaboration on writing. Then, the researcher asked three different raters to evaluate students' writing tasks from the first task to the last task on each cycle. Each task was used to see whether there was students' improvement on their writing skills. The criteria of each task were used by writing rubrics which covered five different aspects of writing.

To determine the score of students' task, the researcher and the collaborator used the ESL composition profile proposed by Jacobs et al.'s (1981) from Weigle (2002). The composition of the writing profile was intended to be used as a guide in making the writing scoring scheme which suitable to be applied to score students writing. According to Jacobs (1981), a scoring system of writing consists of five components. Thus, the researcher and the collaborator focus on the components of writing for the purpose of this study, namely content, organization, vocabulary, language use, and mechanics. The following table presents the scoring scheme of writing which will be used in this research.

**Table 3 Scoring Scheme of Writing in five components**

| Aspects of Writing | Level | Score | Criteria |
|---|---|---|---|
| Content | Excellent to Very Good | 30-27 | - Knowledgeable<br>- Substantive<br>- Thorough development of thesis<br>- Relevant to assigned topic |
| | Good to Average | 26-22 | - Some knowledge of subject<br>- Adequate range<br>- Limited development of thesis<br>- Mostly relevant to topic, but lacks detail |
| | Fair to Poor | 21-17 | - Limited knowledge of subject<br>- Little substance<br>- Inadequate development of topic |
| | Very Poor | 16-13 | - Does not show knowledge of subject<br>- Non-substantive<br>- Not pertinent<br>- Not enough to evaluate |
| Organization | Excellent to Very Good | 20-18 | - Fluent expressions<br>- Ideas clearly stated/supported<br>- Succinct<br>- Well-organized<br>- Logical sequencing<br>- Cohesive |
| | Good to Average | 17-14 | - Somewhat choppy<br>- Loosely organized but main ideas stand out<br>- Limited support<br>- Logical but incomplete sequencing |
| | Fair to Poor | 13-10 | - Ideas confused or disconnected<br>- Lacks logical sequencing and development |
| | Very Poor | 9-7 | - Does not communicate<br>- No organization<br>- Not enough to evaluate |

**Table 3 (cont.)**

| Aspects of Writing | Level | Score | Criteria |
|---|---|---|---|
| Vocabulary | Excellent to Very Good | 20-18 | - Sophisticated range<br>- Effective words/idiom choice and usage<br>- Word form mastery<br>- Appropriate register |
| | Good to Average | 17-14 | - Adequate range<br>- Occasional errors of words/idiom form, choice, usage<br>- But meaning not obscured |
| | Fair to Poor | 13-10 | - Limited range<br>- Frequent errors of words/idiom form, choice, usage<br>- Meaning confused or obscured |
| | Very Poor | 9-7 | - Essentially translation<br>- Little knowledge of English vocabulary, idioms, word form<br>- Not enough to evaluate |
| Language use (Grammar) | Excellent to Very Good | 25-22 | - Effective complex construction<br>- Few error of agreement, tense, number, word order/function, articles, pronouns, preposition pronoun, preposition |
| | Good to Average | 21-18 | - Effective but simple construction<br>- Minor problem in complex construction<br>- Several errors of agreement, tense, number, word, order/function, articles, pronouns, preposition<br>- But meaning seldom obscured |
| | Fair to Poor | 17-11 | - Major problems in simple/complex construction<br>- Frequent error of negation, agreement, tense, number, word order/function, articles, pronouns, preposition and/or fragments, run-ons, deletions<br>- Meaning confused or obscured |

**Table 3 (cont.)**

| Aspects of Writing | Level | Score | Criteria |
|---|---|---|---|
| | Very Poor | 10-5 | - Virtually no mastery of sentence construction rules |
| | | | - Dominated by errors does not communicate |
| | | | - Not enough to evaluate |
| Mechanics | Excellent to Very Good | 5 | - Demonstrates mastery of convention |
| | | | - Few errors of spelling, punctuation, capitalization, paragraphing |
| | Good to Average | 4 | - Occasional errors of spelling, punctuation, capitalization, paragraphing but meaning not obscured |
| | Fair to Poor | 3 | - Occasional errors of spelling, punctuation, capitalization, paragraphing |
| | | | - Poor hand writing |
| | | | - Meaning confused or obscured |
| | Very Poor | 2 | - No mastery of convention |
| | | | - Dominated by errors of spelling, punctuation, capitalization, paragraphing |
| | | | - Hand writing illegible |

In assessing students' writing, each component of the scale includes the following four categories: excellent to very good, good to average, fair to poor and very poor. There were three different independent raters. The first rater was the English lecturer of the subject, the second and third rater were the English lecturer who qualified for assessing students' writing. Then, the score was further calculated by using the SPSS $16^{th}$ version by applying the paired sample t-test to see the significant differences between the students' scores in pre-test and post-test.