

## CHAPTER III

### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter discusses the procedures used to conduct the study, and the methodological principles and rationale. It includes discussion of the research design, site, participants and selection procedures, role of the researcher, data collection methods, data analysis procedures, and ethical considerations. In particular, the data collection methods are explained comprehensively, namely data collection, analyses and interpretation, which attempt to investigate how cooperative learning (CL) was implemented, how CL was beneficial and what challenges were likely to be encountered while implementing CL. Thus, this chapter describes the protocol taken in seeking a deeper understanding of implementation of CL in a junior high school in Indonesia.

#### 3.2 Rationale for Research Design

This study employed a qualitative case study research design. The design was suitable for the research purpose, namely to generate an in-depth and holistic inquiry regarding the implementation of CL, its outcomes and the challenges encountered in a junior secondary school in Indonesia. As Yin (2011) explains, qualitative research “enables you to conduct in-depth studies about a broad array of topics, including your favorites, in plain and everyday terms. Moreover, qualitative research offers greater latitude in selecting topics of interest because other research methods are likely to be constrained by the inability to establish the necessary research conditions (as in an experiment); the unavailability of sufficient data series or lack of coverage of sufficient variables (as in an economic study); the difficulty in drawing an adequate sample of respondents and obtaining a sufficiently high response rate (as in a survey);

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or other limitations such as being devoted to studying the past but not ongoing events (as in a history)” (p. 6).

Case study research is “a special kind of qualitative work that investigates a contextualized contemporary (as opposed to a historical) phenomenon within specified boundaries” (Hatch, 2002, p. 30). The justification for this choice is based on the characteristics of case study research. These elements are discussed below, along with the rationale in the context of the current study.

Firstly the use of the qualitative case study approach is appropriate for this study, as a substantial body of research has documented the effectiveness of CL in a variety of subjects and settings quantitatively (Gillies, 2003; Johnson & Johnson 1999; Johnson et al., 1991, 1998; Kagan & Kagan, 2009; Slavin, 1995). Having such rich literature, it might be assumed that the teachers have welcomed it warmly however, the use of CL is still to be established in most parts of the world (Hennessey & Dionigi, 2013). Research indicates that CL is still rarely used due to a dearth of adequately trained teachers who perceive that traditional group work is sufficient, and so are not motivated to learn the fundamental features of CL (Gokmen, 2009; Johnson & Johnson 1999; Johnson et al., 1991, 1998). More research is needed to explain how teachers’ knowledge of CL can shape what teachers perceive as barriers to effective implementation, thus affecting the success of CL in practice (Hennessey & Dionigi, 2013). This can be achieved by observing teaching-learning practice qualitatively. Therefore, qualitative case study is appropriate in order to study the process of CL implementation in Indonesian context where qualitative research is limited but CL has shown to be effective.

According to Creswell (2012), qualitative research is worthwhile when the issue is still not understood fully. Qualitative approaches dig deep into a given case in order to elucidate a detailed description of the issue involved. This is in contrast to quantitative approaches which test a theory, and may provide only a shallow understanding of surrounding issues (Malik & Hamied, 2014). Therefore, the

qualitative case study is appropriate for this study, as the intent of the study is to investigate how CL was implemented in an EFL class. Also it can assess whether or not the teacher's concerns change while shifting to active learning pedagogy from the prevailing traditional teaching and learning approaches. The study also tried to explore the challenges experienced when this active learning approach was implemented specifically, in an EFL class in Indonesia.

As summarized by Johnson (1993) “too often, because of the nature of correlational, survey, and experimental research, and their privileged status in L2 research, very little is learned about individual language learners, teachers, or classes. Case studies stand in a sharp contrast to these approaches by providing insights into the complexities of particular cases in their particular contexts” (as cited in Mackey & Gass, 2005).

Secondly, the subject of the study is a class of junior high students. This group of students is a class, a single case selected from ten classes in the ninth grade at the school involved. The single case is sufficient for the study, as the case is special and represents a significant contribution to knowledge and theory building within the literature on using CL in large classes. Case study research is usually characterized as a bounded system (Malik & Hamied, 2014; Punch, 2009; Yin, 2003). It is conducted in a natural context and so has boundaries of ‘time and space’ (Hancock & Algozzine, 2006, p. 15). However, the case is usually not distinctive from the context (Yin, 1994). Therefore, the researcher is required to determine the boundaries of the case in order to develop an in-depth understanding of the investigated issue.

The proposed study uses a case of CL in a large EFL class. Hence, based on Yin (2009), the present study aims at to explore the implementation of CL in a large class by setting the following boundaries. In terms of its organization, it is a large class. In terms of location and educational context, it is a junior high school in Lembang, Bandung, a district in west Java province, Indonesia. The boundaries related to data include qualitative data collection and analysis based on principles and

implementation of CL. Although cases are bounded, they are normally part of bigger systems. As this study intends to explore how CL was understood and implemented in a large EFL class, it is hard to overlook other methods for teaching English used by other teachers, or the use of group work but not CL in its true nature due to their beliefs and lack of understanding of CL.

Thirdly, case study research requires multiple sources of evidence (Yin, 2011) which in this case include, classroom observation, questionnaire, interviews (including focus group discussion with learners) and document analysis. The data were gathered through multiple sources in order to develop holistic and in-depth understanding of the implementation of CL in a large class in a junior high school in Bandung, Indonesia. The multiple data were triangulated in order to improve the credibility of the study (Creswell, 2012; Stake, 1995; Yin, 2003). Triangulation is significant in qualitative research (Yin, 2011).

In addition, the nature of the research questions also play role in determining the research design. The present study aims to investigate the “how” and “what” research questions. According to Yin (2003), case study is appropriate for seeking the answer to the ‘how’ ‘what’, and ‘why’ research questions. The present study seeks to reveal how CL was understood and implemented, what benefits were likely to be gained from CL and what challenges were likely to be encountered in order for its implementation in a public junior high school in Bandung. Case study permits a researcher to reveal the way a multiplicity of factors have interacted to produce the unique character of the entity that is the subject of the research (Bahanshal, 2013; Thomas, 2003).

### **3.3 Context of the Study**

The current study is confined to a junior high school in Lembang, Bandung, Indonesia. Lembang is the capital town of Lembang district with a population of approximately 17,000 people. Students across Lembang district attend the school.

Lembang is located 16 kilometers north of Bandung city center. The school is conveniently accessible, as it is located on the main road. All traffic from Bandung town to Lembang town itself, other sightseeing venues around, and neighboring cities passes in front of the school. It is not far from a famous volcanic mountain Tangkuban Prah. Eruptions of the volcano have spread ash in the region which resulted in fertile soil, good for agriculture. That is why the major portion of the community around the school comes from farming families. Some parents are local traders and a minority are office workers. As a whole, the income of the parents categorizes the students as middle class.

It was determined during the preliminary research that many teachers at the school held to a traditional teacher-centered pedagogy and were reluctant to try out widely recommended active learning methodologies, including CL. There are five English teachers at the school, one of them holds master's degree and other four possess bachelor degrees. The participating teacher, Mrs. Nur (pseudonym) is currently pursuing her masters as a part time student. Mrs. Nur is attempting to implement a kind of CL in her classes. She invites her colleagues to implement CL, however they seem to lack confidence to try out a new method due to their fear of failure. The participating teacher explained the situation.

There are five English teachers at this school. I try to invite some teachers to my class. They still agree with CL. But when they go back to their class to implement by themselves, it is a kind of their laziness so I couldn't force them to implement this strategy... (Mrs. Nur, April 4, 2015).

Her explanation implies teachers are reluctant to implement CL, a new pedagogy. They are afraid of the demand and the challenges of a learner-centered approach. It is potentially challenging to control the class where the teacher is only a facilitator. Thus this study attempts to explore how CL was understood and implemented in order to develop teaching-learning that is more learner-centered in a context of some level of professional peer reluctance.

### **3.4 Participants**

The participants for the study included the teacher and the pupils in one of Mrs. Nur's English classes at a state junior secondary school in Lembang, Bandung. The class was comprised of thirty six pupils including nineteen boys and seventeen girls. The class was observed where CL activities, as defined by the participating teacher, were conducted by the teacher.

The research site and participants were chosen purposefully for the following reasons. Firstly, the school was located within easily accessible distance by public transport from the university where the researcher was pursuing his doctoral degree. Secondly, the researcher had an opportunity to visit the research site during a teaching practice assignment part of his a course work during the second semester. There, the researcher taught a lesson to a first year junior high school class comprising of forty one students. The researcher felt at home while teaching and communicating with the students. The administration and the teachers welcomed the researcher warmly, and the class teacher was very supportive, even giving help to video record the lessons. And thirdly, the English competence of both the teacher and the learners was good enough to use English only throughout the class, which enabled the researcher to take field notes comfortably.

The selection of participants was made due to the following reasons.

The participating teacher, Mrs. Nur was chosen because she was recommended by a friend of mine who teaches at the same school. Mrs. Nur is experienced, having taught English for over 20 years. Mrs. Nur is one of the senior English teachers at the school. The researcher's supervisor is familiar with her diligence and dedication to teaching as well, so he spoke highly of her. She was also recommended by the researcher's colleagues who had teaching practice at the same school.

Moreover, Mrs. Nur's perception of CL had been shared during an informal discussion with the researcher when research proposal was being finalized for the current study. According to her, CL improves learning and makes the learners autonomous. She believes in group work activities, so she utilizes small groups in most of her classes. Thus the teacher was interested in supporting an effort to research CL implementation in her class. It cannot be denied that this teacher is a big fan of cooperative group learning and that is why she always employs group work approaches in her classes. It was noted in one of her interview responses:

... I try to implement it (CL) nearly all the time because teaching a large class needs kind of grouping very much... (Mrs. Nur, November 29, 2015).

A 9<sup>th</sup> grade class was observed for fourteen sessions comprising of two 40 minute periods presented consecutively twice a week on Wednesdays and Thursdays. The observations took place over three months (September to November 2015). After the onsite observation, a questionnaire was administered, followed by interviews with the teacher and focus group discussion with the pupils.

### **3.5 Large Class Context**

The class was comprised of thirty six pupils including nineteen boys and seventeen girls. The participating teacher as well as the students perceived the class as large (see section 4.3 for details).

### **3.6 Preliminary Research**

The researcher gathered preliminary data for this study through observing an English class in a state junior secondary school in Bandung, Indonesia. It was not surprising for the researcher to come across a crowded class of forty students. The researcher had experienced teaching English in large classes comprising of fifty plus secondary pupils in Pakistan, or over forty in Japan. The conditions in Indonesia are identical regarding large class sizes, particularly at state run schools.

The class was comprised of thirty six students, a large class according to the definition given in chapter one. One of the reasons given for the large class was that the status of the school had been changed from an international standard to a normal national standard school by the Ministry of Education. One consequence of this change was a shift in the pupil number in the classes from below thirty to forty, or even forty plus.

Two English teachers (T1 and T2) were interviewed employing semi-structured items. They represented both genders. T1 was interviewed about the most effective ways to handle a class for the maximum learning outcome. T1 revealed that the traditional teacher-centered method was dominantly employed in the class. Cooperative group learning was occasionally used. T1 further explained that he first picked out and taught ten students for a few minutes during the class and then each of these students joined a group to be responsible for the entire group's learning. The teacher called it a jigsaw technique. This type of CL technique was employed for twenty to forty minutes in an eighty minute class period. T1 believes that CL is a useful technique in terms of students' involvement and teacher's workload. He plans to implement it during each class meeting. T1 explained that although CL is beneficial to teaching-learning, there are challenges as well when the students are put together to work collaboratively. The formation of equal size groups was a challenge as a few students were always adamant to work with their close friends, ruling out the participant equal number instruction and resulting in uneven group members which eventually affect the outcomes.

Another teacher (T2) enthusiastically implements CL approaches and techniques in her English classes. The teacher has recently adopted this methodology in 90% of her lessons due to the large class sizes. The researcher was given access to a group of eight students to interview them. The participants were chosen by the teacher according to criteria of their English language proficiency, bearing in mind the researcher was a foreigner.



A focus group discussion was conducted with the eight students with equal representation of both genders. The year eight students' responses triangulated with the teachers' observations. The students commented that CL made learning easy, pleasurable and better than other classes. The classroom atmosphere was perceived as more conducive to learning. CL also provided opportunities to socialize and build strong bonds among classmates. Furthermore, it was perceived to enhance confidence, teamwork and leadership skills. However, the students pointed out a few challenges, such as difference of opinion and imposition of one's ideas, making it hard to reach consensus. The findings are in line with Macaro (1997). Joining a favorite group of friends and thus violating the instructions for group membership was another issue.

During the observation of an English class in a state junior secondary school in Bandung, Indonesia as part of preliminary research for this study, both T1 and T2 seemed uncomfortable in handling a large number of students, categorizing the class as crowded. Both the teachers were adapting their teaching method in order to engage students in teaching-learning appropriately due to large class sizes. T1 was employing cooperative group learning in most of her classes. T2 was also planning to shift his teaching method to more active learning employing jigsaw, a CL method. Therefore, the current study is significant for investigating the understanding and implementation of CL in large class sizes.

### **3.7 Data Collection**

In order to obtain data, multiple sources were used including classroom observation, pupil questionnaires, institutional document examination and interviews (teacher interviews and pupil focus group discussion).

#### **3.7.1 Classroom Observation**

Data gathering began with onsite classroom observation. Two types of data were collected through observation by video recordings and field notes. Day (1990) proposes that audio and video recordings are the most neutral techniques for

observation. Along with their complete objectivity, audio and video recordings have the potential of capturing the essence of the classroom, and can be listened to, or viewed, over and over, allowing the participants to agree on an interpretation of an event or behavior. These data describe the activities of the students in the teaching process. A great deal of literature has emphasized the importance of observation in language research and practice (Gebhard, 1999; Mackey & Gass, 2005). Observation is “a non-judgmental description of classroom events that can be analyzed and given interpretation” (Gebhard, 1999, p. 35). According to Hatch (2002, p. 72), observation aims at understanding “the culture, setting, or social phenomenon being studied from the perspectives of the participants”. Observers attempt to see the world through the eyes of those they are studying.

Hatch identifies the following characteristics of observation for general qualitative research.

- Direct observation of social phenomena permits better understanding of the contexts in which such phenomena occur.
- Firsthand experience allows the researcher to be open to discovering inductively how the participants are understanding the setting.
- The researcher has the opportunity to see things that are taken for granted by participants and would be less likely to come to the surface using interviewing or other data collection techniques.
- The researcher may learn sensitive information from being in the setting that informants may be reluctant to discuss in interviews.
- Getting close to social phenomena allows the researcher to add his or her own experience in the setting to the analysis of what is happening. (Hatch (2002, p. 72).

Classroom observation includes descriptions of the learning environment, including all the elements in the learning process such as teachers, students, materials and the place where the learning is conducted. Observation can help how these components interact to achieve the learning outcomes.

For this study the classroom observation was conducted during fourteen meetings in one semester over three months, September- November. The duration of

the English class was 80 (40 x 2) minutes twice a week. The class was held on Wednesdays from 07:10 – 08:30 a.m. and Thursdays from 10:20 – 11:40 a.m.

The study used observation as the major instrument to gather data. The purpose of the observation was to monitor the teacher's role in implementing CL, the behavior of the learners during the group work activities, the quality of their group product and the group presentation for group and individual assessment. All the class sessions were videotaped. Using the video camera did not bother the students as they were accustomed to be videotaped during the participating teacher's class. The teacher explained the presence of the researcher as an observer undertaking a research project. The researcher usually sat at the back right corner of the classroom where the video camera could be set up on a tripod. Since it was not the first time at the school, the researcher felt very at home asking for any help needed from the school administrators and the teachers. In the beginning, the learners seemed to be a bit disturbed of the presence of the researcher. However, they soon took it as routine and a good rapport with the class was established. The class observation was confined to fourteen meetings because the setting in the same class with a small sample meant the saturation stage was reached during the observed class meetings. Some of the field notes are given below as examples.

### **Session 3**

Setting: Government junior high school (SMPN) ... Bandung, West Java, Indonesia

Subject: English      Class: 9

Date: September 9, 2015      Time: 10:20 -11:40 (40×2 minutes)

Total number of students in the class: 36    Number of present students on the day: 36

T opens the class with Islamic greetings as usual: Assalamu alaikum wa rahmatullihi wa barakatu

Class: wa alaikumussalam wa rahmatullihi wa barakatu.

T: let's sing together. T starts to sing goodbye song.

Class: No. No...it is wrong

T: picks a student to lead the good morning song.

Class: sings good morning song.

T: introduces the novel way of getting the pupils attention by saying Hi/Hello. Class responds Hello/Hi.

It was observed throughout the observation period that the teacher got pupils' attention by cooperatively agreed rule in the class. When the amount of noise raised to the disturbing the class or the neighboring classes, the teacher shouted either hello or hi and the class responded hi or hello. It was a very convenient way to minimize the discipline issue when pupils were unaware of the level of noise.

T: let's clean around the class. And make sure there are only English books on your desk. Today we introduce a simple class rule. Response hello for hi and vice versa when I say hi say hello and vice versa.

### **Social skills building**

Teacher asked the class to work in groups but one student preferred to work individually. Then the teacher motivated the students to work in groups by talking about advantages working together.

### **Social skill training**

Informal post lesson talk

The researcher: was any training regarding CL was conducted in the beginning of the semester?

Teacher: Not particular training but the teacher motivates the students to work in groups because it lessens the burden and sharing of ideas in groups help create better group products. It also helps learning as a result of presenting ideas by all the groups.

### **Group composition**

T introduces a new way to form the groups by picking up a rolled piece of paper with planets names. The same planet people would gather in the same group. T asks the students to stand in six lines as they are in **six** groups. T assigns seats to each group.

It was quite interesting and beneficial considering the names of planets to form the groups since the topic of the lesson was related to it. Six groups (Venus, Mars, Saturn, Pluto, Jupiter, and Earth) were formed comprising six members since the entire number of the students, thirty six students were present.

Group work lasted for the rest of the period for about 40 minutes.

### **Group size**

All groups comprised six members... teacher was unsatisfied due to large groups, she will try to not make large groups again. She prefers groups of fours.

### **Less participation**

Owing to large groups, it was hard to establish face to face interaction. Off task, playing with friends... problem was observed due to long group activity.

### **Group processing**

No such time was given to students to ponder on positive and negative behaviors for the day's group work activity.

Teacher: closes the meeting with goodbye song and greeting as bell rings as well.

### **Session 7**

Date: October 8, 2015      Time: 07:10 - 08:30 (40×2 minutes)

Total number of students in the class: 36      Number of present students on the day: 35

Setting: Government junior high school (SMPN) ... Bandung, West Java, Indonesia

Subject: English      Class: 9

### **Group composition**

The teacher divided the class into four groups, the groups were formed randomly as the students were sitting in the four rows.

Mrs. Nur used another strategy just forming the four groups consisting of eight to ten pupils in each group as they were sitting in four rows.

### **Group size**

Each group comprised of eight to ten members

### **Face to face interaction**

Though very convenient and quick group forming whereas to some extent this strategy compromised the learning as the pupils were struggling to communicate due to group seating from the front of the classroom to the rear end.

### **Social skills**

Teacher: Hello! (HELLO/HI response worked well to normalize the noise).

Class: Hi!

### **Group processing**

No time assigned for reflection on the day's working together.

**Group activity:** Presenting a recipe of their own choice

Two groups were done and they had displayed their work on the board.

Teacher: Two groups are done and the two are still working on the projects. A group made rainbow cake recipe and the other **INDONESIAN SWEET MARTABAK RECIPE**. You can explain the recipe next class meeting. Today all of you have written the recipe and next week each group will explain how to make it. But today I want to check your handwriting. I will check your work. Time is up. Thank you for your patience. I always love to teach in this class. See you next time.

Class: sings goodbye song. Goodbye teacher, goodbye teacher. See you next week.

Teacher: there is an addition. Next week after you perform your recipes, Y (a student) will tell you about digital storytelling and Y will show the digital story telling about the recipe. Thank you, Y...

## **3.7.2 Student Questionnaire**

A questionnaire was used in order to give a chance for the student participants in the study to express their knowledge, experiences, and ideas as freely as possible. The questionnaire was only for pupils, and was originally prepared by the researcher in English. It was subsequently translated into Indonesian by Mr. Ade, an English teacher at the school, who also helped administer the questionnaire and facilitate the focus group discussions with the students. The purpose of the translation into the national language was to make it easier for the students to express their responses. Their responses were translated into English for data analysis. Both versions are attached in the appendices. The questionnaire items were intended to capture the perception of the pupils on class size, challenges in learning English in the class, and the implementation of CL. The questionnaire was made up of a combination of closed-ended and open-ended items (Dawson, 2007). It contained nine items, the first eight with a few choices, and the ninth item was open ended regarding their opinion about CL.

### **3.7.3 Interview**

The third data source was interviews. The data from the interviews are very important for confirming the participants' responses to the questionnaire, and the participants' conduct during the classroom observations. Interviews are significant as "they can provide insights into people's experiences, beliefs, perceptions, and motivation at a depth that is not possible with questionnaires" (Richards, 2009, p. 187). The purpose of the interview was to triangulate the observed practice of teaching-learning in the classroom in order to make a contrast and comparison of all the data obtained from different sources (Freebody, 2003), i.e. classroom observation, questionnaire, document examination and interviews. This approach enhances the validity of the conclusion of the study (Stake, 1995; Freebody, 2003).

The semi-structured interviews were conducted with the teacher, and the focus group discussions were conducted with the learners. The venue of the interviews was the school. The pupil focus group discussions were conducted on

November 26, 2015 whereas the teacher was interviewed on November 29, 2015 and on April 2, 2016 and again on January 20, 2017.

The teacher interviews were conducted in English. She had been provided with a copy of the questions before the first interview. She was accommodating and could comply with the request to spare some time for the first interview on a weekend. The interview was conducted in a very relaxed atmosphere in the school lobby. The timing and the quiet background also contributed to achieving an in-depth understanding allowing “the interviewee [to] develop ideas and speak more widely on the issues raised by the researcher” (Denscombe, 2007, p. 176).

The second interview took place on April 4, 2016 after school hours. Its main purpose was to clarify certain points from the first interview. In both cases, items discussed were about the class size and effects of class size, on the teaching-learning process, the implementation of the CL approach, as well as suggestions for a cooperative school. The interview was audiotaped with the consent of the teacher and subsequently transcribed.

The third interview was conducted on January 20, 2017 in the morning. The purpose of this interview was to strengthen the data regarding the participating teacher’s understanding of the elements of CL and the ways to implement it in a classroom. This interview was audiotaped with the consent of the teacher and subsequently transcribed.

Focus group discussions were conducted on November 26, 2015. Six participants were selected in order to have all three ability levels represented by a pair of students, and to represent male and female students equally. The participants were chosen with the consultation of the teacher, and confirmed by the learners’ result reports (school documentation). Focus group discussion time was arranged with the pupils instead of the teacher because they were more available in terms of time. Focus group discussions allowed the young people to be more comfortable and



willing to express themselves with their peers than would be case in an individual interview. The participants' responses were sought in Indonesian for the convenience of the participants and with the support of another English teacher. The researcher read each question to the group and then displayed the question till all the learners expressed their view on it. Mr. Ade helped probe answers or comments further if that was necessary. The discussion was videotaped with the consent of the participants.

#### **3.7.4 Document Analysis**

Document examination evidence was another source of data on the nature of the activities, implementation of group activities and learners' academic achievement in this study. The following institutional documents were analyzed: learner result reports, lesson plans, group products, and the English textbook used. Yin (2009) maintains that "documents must be carefully used and should not be accepted as literal recordings of events that have taken place" (p. 103). Therefore, all relevant documents were always carefully examined in the larger contexts of their creation, reception and distribution (Newman, 2006).

#### **3.8 Data Analysis**

The data gained through interviews and focus group discussions were transcribed. All the data were classified, according to the research questions. Thematic analysis was employed to analyze the data. The objective of this thematic analysis was to deepen the understanding of the implementation of CL in the classroom (Creswell, 2007; Yin, 2003). Thematic analysis is typical in the use of an inductive approach to coding where themes emerge from the textual data. The aim of the thematic analysis is "to allow research findings to emerge from the frequent, dominant, or significant themes inherent in raw data" (Thomas, 2006, p. 238).

Data analysis of this study began with transcribing lesson videos, interviews and focus groups discussions, allowing the data to be read repeatedly (Malik & Hamied, 2014). Then the steps suggested by Miles & Huberman (1994) - data

reduction, data display and conclusion making were followed. After reducing irrelevant, data codes were found according to the research questions and some tables and charts were also displayed. Finally conclusions were drawn with help of different data sources.

Data gathered from the focus group discussions were transcribed into the language they were collected, that is Indonesian. Since the researcher is not fluent in Indonesian, the data were subsequently translated by Mr. Ade.

All the files of data gathered from classroom observations in the form of video files and field notes and the responses gathered from the pupil questionnaire were compiled and organized. All the data were read repeatedly to identify themes and answer the research questions.

Coding (codes developed the general picture of the data), interpreting the meaning of the findings, relating the results to theory and conducting strategies to validate the accuracy of the findings by triangulating results from the classroom observations, the questionnaire, the interviews (including focus group discussions) and the institutional documents.

### **3.9 Ethical Considerations**

Confidentiality was ensured throughout the study by using pseudonyms for all participants (Silverman, 1993). With their prior permission, the onsite observation and pupil focus group discussions were videotaped and the teacher interview was audiotaped.

### **3.10 Summary**

This chapter has discussed the selected methodology for the study including research design, context of the study, large class context, preliminary research, participant selection, data collection methods, data analysis procedures, and ethical

considerations. The following chapter will present study findings and discussion on findings

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