

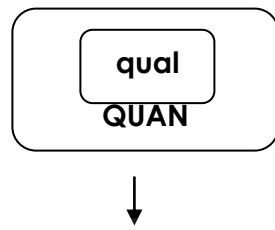
Chapter 3

Methodology

In this chapter of the study, a framework of the research method is presented to provide a description of how the study is conducted.

3.1 Research Design

This study employed *mixed method research design*, a way of investigating and comprehending social phenomenon through a combination of both quantitative and qualitative forms (Cresswell, 2009:4). Applying the paradigm of *pre-experimental design* (one-shot case study) with *qualitative data* and *interpretive analysis* (Nunan, 1992:6), the study itself emphasizes on the peer feedback approach in writing activities. The research design is a *concurrent embedded design* (as shown on figure 3.1.1), where the quantitative data represents the expected outcomes and the qualitative data explores the processes experienced by the subjects through the treatment (Creswell, 2009: 214). Morse (1991) c.f. Creswell (2009, 215) stated that both approaches could enrich the description of the subjects, or else when qualitative data could be employed to describe an aspect of a quantitative study that cannot be quantified.



Analysis of Findings

Figure 3.1.1 Concurrent Embedded Design

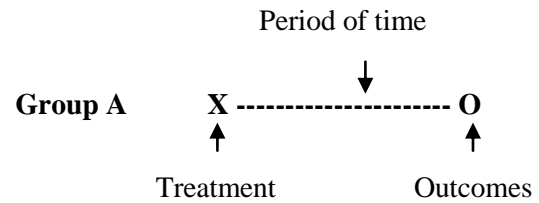


Figure 3.1.2 One-Shot Case Study

The one-shot case study is illustrated in figure 3.1.2, it shows the process of the study where the subjects (group A) receive treatment (X) for a period of time (----) and reach the expected outcomes (O). In a usual science class atmosphere, like any other day in campus, the respondents will be undergoing lab work, which follows the task of making reports on what they have examined through lab experiment. The respondents are put into groups of three, and they hand in their writing product (or first draft) to the other member of the group. For example, in a group there is A – B – C, the pattern of distribution would be $A \rightarrow B$, $B \rightarrow C$ and $C \rightarrow A$. This is where the treatment starts when participants give/receive feedback on their writing towards/from peers, and then re-evaluates or rewrites their original written work – in this case a lab report. Based on this cycle, participants will be able to create and justify their original piece of writing thus endures a stronger foundation of their writing ability and knowledge.

The study took place in the Science Department of a State University located in *Bandung, West Java* which is a government owned institution where there is a

program that gathers a group of selected students, which utilizes English as a means of instruction in class.

3.2 Population and Sample

The population of the study is students who are in the sixth semester. The samples were taken from a class with the number of 15 students. Most of the students would be around the age of 20 to 22 years.

The sampling of the study applied *purposive sampling* since the research would like to gain data from related respondents of the issue in hand. There are four objectives in purposive sampling that Maxwell (1996) c.f Alwasilah (2009:147) stated as follows:

1. The uniqueness and representation of the setting, individuals, or event
2. Heterogeneity of the population
3. Study critical cases of established theories
4. Finding comparisons to differentiate the rationale of the setting, individuals, or event

Based on the framework above, this study would purposively chose respondents who are undergoing the *Kimia Sekolah 2* course in their classroom, which employs peer feedback as one of the techniques in the teaching-learning process.

3.3 Research Instruments

In acquiring the data and informational knowledge, text analysis on learners' written composition, questionnaire and structured interview were applied.

3.3.1 Respondents' Compositions

Respondent's written composition is collected to analyze and investigate the types of peer feedback, feedback points and revision types. The collected data were taken from 15 respondents' first draft and revision of their lab reports which were written in English (a sample of a student's written work and peer written commentary feedbacks are enclosed in appendix 1). From the first draft, all the commentary feedbacks written by respondents towards their peer work were compiled to be categorized into the types of written feedback, namely *praise*, *criticism*, and *suggestions* (adopted from Hyland 2001). The feedback points consisting of *possible*, *usable*, and *used feedback* (adopted from Miao, Richard & Yu, 2006) were also taken from the respondent's first draft and second draft to obtain information on whether the feedbacks were incorporated into revision. The commentary feedbacks were put into those three categories. The second draft or revised text comprised of information and data that were categorized into revision types. This classification was put into two major revision points proposed by Faigley and Witte (1981), namely *surface changes* (including formal and meaning-preserving changes) and *meaning changes* (including microstructure and macrostructure). This was carried out to investigate the

types of revision that were put into the learners' writing after the peer feedback session.

3.3.2 Questionnaire

Questionnaire was applied to explore respondent's perceptions towards the underpinning issue and to investigate their understanding based on knowledge and experience. This was distributed to 15 science students in a chemistry class after school hours. It comprised of 13 closed-ended questions in the form of statements, which employed the *continuous scale* (Creswell, 2009: 150) (e.g. strongly agree, agree, neutral, disagree, and strongly disagree). The questionnaire was constructed through a series of drafts where discussions and considerations were made based on the research scope and importance between the researcher and the classroom instructor (who was familiar with the classroom situation). Some criteria were made in the construction that the questions were clear and easy to understand, and also easy to read, pleasant to the eye and the sequence is easy to follow (Kumar, 1996: 110). The acquired data was intended to investigate the respondents' viewpoints towards the peer feedback session including the benefits and obstacles they experienced. The data was tabulated based on three classifications (peer feedback, benefits & obstacle) and then put into percentages based on the previous scale.

3.3.3 Structured Interview

A *structured interview* is carried out to investigate and to intensify the interpretation gained through respondent's writing product and questionnaire result. According to Kumar (1996: 109) defined a *structured interview* as a set of pre-determined questions which was specifically applied in the same order towards the respondents. This will provide unified information to assure the comparability of data (Kumar, 1996). There were three specific open-ended questions (enclosed in appendix 3) that was conducted to 7 randomly chosen respondents. The interview took around 5 – 10 minutes of the respondents' time (which was done after class hours) and recorded using an audio recorder. The collected information are transcribed and analyzed to enrich the findings and attempt to perceive respondent's standing point of behavior and beliefs undergoing the practice.

3.4 Data Analysis

The obtained data collected through the instruments as previously presented were subjected to quantitative analysis and qualitative analysis.

3.4.1 Quantitative Analysis

Text analysis was conducted to identify the number of commentary feedbacks, the number of feedbacks used into revision, and the revision types from the respondents' drafts. This was done to answer the first research question (What types

of feedback are given by learners towards their peer's writing drafts?), where the commentary feedbacks were categorized based on the types of feedback (praise, criticism & suggestions), feedback points (possible, usable & used feedbacks), and revision types (surface & meaning changes). The results were quantified into percentages of frequency based on the classifications. This is enclosed in appendix 1.

A questionnaire was also quantified based upon respondents' responses towards 13 closed questions, displayed into percentages of frequency. This was to address the second research question (What are learner's perspectives towards peer feedback?), which is enclosed in appendix 2.

3.4.2 Qualitative Analysis

In answering the third research question (How do learners take their peer's written feedbacks for future writing?) a structured interview was assembled as quantitative analysis would not be able to capture the nature of the issue. The transcribed interview results were classified into three categories based on the structured questions given to 7 randomly chosen respondents (enclosed in appendix 3), aiming to explore the responses and beliefs towards their peer's commentary feedbacks.

3.5 Research Procedure

In undergoing the research, the process of the study was conducted is illustrated as follow (also shown on Figure 3.4.1):

1. Preparing the research by exploring information and theories on websites and books related to the study.
2. Designing the research method and generating the research question(s).
3. Collecting data and information on the related issue.
 - a. Distributing questionnaires to the respondents to comprehend a better overview of the issue from their understanding and experience.
 - b. Analyzing respondents writing composition to discover the types of peer feedback, feedback points and revision types.
 - c. Carrying out an interview towards respondents to venture their minds and to capture a better interpretation of their outlook.
4. Analyzing and Interpreting the collected information/theories and data to obtain a grounded theory/s on the issue, namely categorization and tabulation of text analysis (types of feedback: praise, criticism & suggestion; feedback points: possible, usable & used feedbacks; and types of revision: surface & meaning changes), and interpretations of the findings through questionnaire and interview.
5. Drawing the conclusion of the study from the results based on the research question(s) and related theories.

Through this process the study would like to obtain data that could correlate to the research questions underpinning the phenomenon.

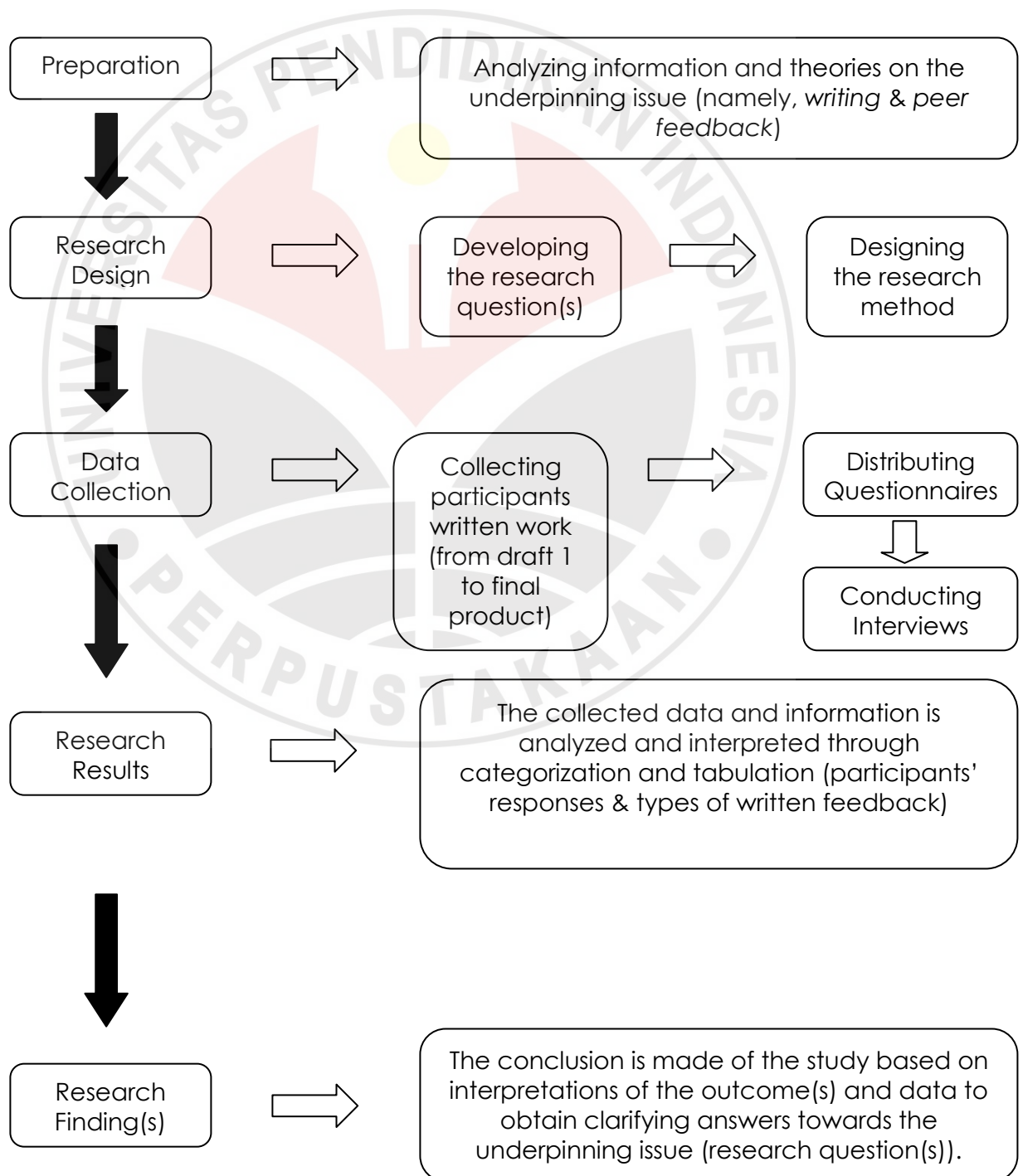


Figure 3.4.1 Research Procedure

3.6 Validity

Since the data is collected through documentary studies, respondent's written composition and questionnaires, the data validity is checked through thick description of the issue. As Alwasilah (2009:171) stated that to avoid the inaccuracy and incompleteness of the data, the interview is then made into transcripts which are presented in the appendices of this study as authentic and natural as possible.

To ensure the validity of the data, the interpretations of the data are then given back to the respondents to check the accuracy of what was interpreted through the questionnaire. This is called member checking, to make sure what we interpret is in line with the respondent's point of view (Alwasilah, 2009:178).