

## CHAPTER III

### METHODOLOGY

#### 3.0 Introduction

This chapter discusses the methodology of this study. It comprises the research design, setting, sampling method and the research instruments which were the pre-test, mid-test, post-test, semantic-based explicit contrastive grammar instruction of the use of determiners within the CLT approach between English and Bahasa Malaysia (BM) and questionnaire. In addition, the procedures of data analysis are also discussed.

#### 3.1 Research Design

This is a mixed method research. There are two phases for the study where the instrument (treatment) used in the quantitative approach is developed through the findings from the qualitative data analysis. In the first phase of the study, the qualitative approach was employed to address the first research question which intends to identify the core values/invariant meanings of determiners (i.e. demonstratives and quantifiers) in English and BM. In this phase, the data collected were language samples extracted from editorials which highlighted the use of the demonstratives and quantifiers in materials of established standard (i.e. newspapers). These language samples for English and BM determiners were extracted from 'The Independent' and '*Utusan Malaysia*' respectively published from November 2008 to September 2009. Additionally, language samples from English (Concordancers) and BM (*Dewan Bahasa dan Pustaka*) written corpus were found to be handy as the extensive use of this grammatical category in written text in both languages were featured.

The second phase of the study involves a quasi-experimental design for data collection. ‘*Quasi*’ is used to describe a situation when the researcher is using a research design that does not have all of the control expected in a purely experimental design (Sedlack & Stanley, 1992). Therefore, due to the constraints of creating an artificial group for the purpose of the experiment as the researcher lacks full control over the participants (students) enrolled, the researcher used intact groups as the experimental group and control group. The samples for the experimental group were students from one of the classes taught by the researcher in a normal classroom setting and at the same time, the control group was another class which followed the regular English course conducted by another teacher.

The experimental group was taught by the researcher with the semantic-based explicit contrastive grammar instruction of the use of determiners (i.e. demonstratives and quantifiers) within the Communicative Language Teaching (CLT) approach between English and BM whereas there was no treatment provided for the students in the control group. The instruments used were pre-test, mid-test and post-test which were administered to both groups before, during and after the treatment. A pilot experiment was conducted to students from one of the classes who did not involve either as the experimental or control group in the experiment. This test was carried out to see the feasibility of the instruments whether or not practicable to achieve the desired data. After the preceding method, the instruments were refined to be given as the pre-test and post-test of the study.

The pre-test was administered to the participants from both the experimental and control group prior to the treatment in order to determine these students’ prior knowledge in their English writings in producing determiners (i.e. demonstratives and quantifiers) in English noun phrases. On the other hand, the post-test which was given after the completion of treatment aimed to find out if there is any development in the

students' writings in producing determiners (i.e. demonstratives and quantifiers) in English noun phrases. Another test which was called the mid-test was also distributed to the participants in the process of the treatment to test the students' understanding in distinguishing the grammatical devices (i.e. demonstratives and quantifiers) which have similar semantic properties. For both the pre-test and post-test, the students were required to write two narratives (i.e. BM and English) for approximately 350 words and an hour each whereas objective questions were designed for the mid-test.

This study aimed at finding out whether or not the semantic-based explicit contrastive grammar instruction within the CLT approach helps the Malay ESL learners to be able to make appropriate use of determiners (i.e. demonstratives and quantifiers) in English noun phrases. Thus, in this study, the students were required to write essays but not sentences in isolation because the use of essays (i.e. narrative) as one of the instruments allowed the researcher to figure out the students' appropriate use of these grammar items in context. This corresponds to the objective of the study to introduce grammar items to the ESL learners within the contextualised input but not formal grammar rules per se.

### **3.2 The Setting**

This study was conducted in a classroom of Department of Information Technology and Communication at Politeknik Sultan Idris Shah, Sabak Bernam, Selangor. As the participants were chosen from the intact groups, the researcher cum teacher utilised the normal classroom setting to implement the treatment which was conducted during the English period. This was found rather effective due to the constraints to find a strategic place and convenient time to implement the treatment successfully. Consequently, the participants managed to overcome the feeling of anxiety due to the tests and treatment conducted as there was no change of environment or

seating arrangements. The feel of being in an ordinary classroom has made these students to participate in this study without any distractions which has become one of its strengths.

### **3.3 The Subjects**

The samples were first semester Malay students of Politeknik Sultan Idris Shah, Sabak Bernam, Selangor. There were seventy-six participants altogether where thirty-nine students were from the experimental group and another thirty-seven students were from the control group. For ethical consideration, each subject was distinguished by numbers (E1 to E39) for the experimental group and (C1 to C37) for the control group and therefore their identities were strictly kept confidential. In addition, all the students from both groups were equipped with sufficient explanation on the purpose of the study and their roles throughout the study before participating. The students' consents were gathered through the consent forms which were distributed before the study was carried out officially.

As the researcher lacked control over the population of first semester students, the intact groups were used as the experimental and control group of the study. The students from Diploma in Programming 1 Section C (DIP 1C) were identified as the experimental group whereas the students who have enrolled into the same course but different section that is Diploma in Programming 1 Section B (DIP 1B) were chosen as the control group. These students were homogeneous as they were enrolled into the programme and placed into different sections by following their identification numbers which were allocated during their enrolment and hence, their results in SPM did not distinguish them.

### **3.4 The Research Instruments**

There were five instruments altogether which were used throughout the study as the method of data collection. They were; the pre-test, mid-test, post-test, semantic-based explicit contrastive grammar instruction of the use of determiners (i.e. demonstratives and quantifiers) within the Communicative Language Teaching (CLT) approach between English and BM and questionnaire.

#### **3.4.1 Pre-Test**

The pre-test was given to the students before the treatment in order to determine the students' prior knowledge in their writings in producing determiners (i.e. demonstratives and quantifiers) in English noun phrases. The students were instructed to write a narrative in English and another narrative in BM within two hours. They were advised to spend at least an hour for each of the essays. The essay questions in both English and BM versions were designed to be identical. The narrative in English which entitled "*An Unforgettable Experience in My Life*" was required to be written for approximately 350 words. Likewise, the length of the BM narrative which entitled "*Satu pengalaman yang tidak dapat dilupakan di dalam hidup saya*" was also limited to 350 words based on the SPM requirement.

As it was mentioned earlier, a pilot test was performed before the pre-test was designed. The result of the pilot experiment has led to a minor change to the real instrument where the students were provided with a list of the grammatical category of determiners (i.e. demonstratives and quantifiers) for both English and BM essays that were obtained from various grammar books (i.e. English and BM) on the market. The students were strictly reminded to include or rather use at least 80% of the words equipped to see the appropriacy of use in their writings. There were four demonstratives

and forty-three quantifiers supplied for the English narrative and two demonstratives and thirty-six quantifiers for the BM narrative (see Appendix, Pre-test, page 356).

### **3.4.2 Mid-Test**

The mid-test was another test which was distributed to both the experimental and control group in the middle of the treatment. This was carried out after a few weeks of treatment before its completion. This test is objective in nature where all the determiners (i.e. demonstratives and quantifiers) were grouped in pairs by identifying the slight differences found through the invariant meaning analysis (from the first phase of the study). These grammar items were grouped in pairs and tested with the students to see whether or not the use of these items can be easily distinguished by the students. There were fifty and forty objective questions which were constructed for the English and BM mid-test respectively (see Appendix, Mid-test, page 360).

### **3.4.3 Post-Test**

The post-test which was given after the completion of treatment aimed at finding out if there is any development in the students' writings in producing determiners in the English noun phrases. Initially, the questions which were constructed for the pre-test and post-test were identical. In other words, the same essay questions were planned to be distributed after the period of treatment. Nevertheless, along the process of the treatment for a few weeks, the researcher found that the list of words (i.e. quantifiers) for both English and BM was insufficient and needed to be added to test on a few other quantifiers which were found to be necessary. Hence, there were three other quantifiers which were included in the list for the English narrative whereas another two quantifiers were added into the list for the BM narrative. Consequently, as the students were required to use at least 80% of the words given, the total number of words to be used in

the English essay was increased from thirty-eight words in the pre-test to forty words for the post-test and thirty words in the pre-test to thirty-two words in the post-test for the BM narrative (see Appendix, Post-test, page 358).

#### **3.4.4 The Semantic-based Explicit Contrastive Grammar Instruction of the Use of Determiners (i.e. demonstratives and quantifiers) within the CLT Approach (The Treatment)**

The treatment was implemented to the experimental group whereas there was no treatment given to the students from the control group. The students from the control group followed the ordinary English course along the process of the experiment. The treatment which was conducted to the students in the experimental group was a semantic-based explicit contrastive grammar instruction of the use of determiners (i.e. demonstratives and quantifiers) between English and BM within the CLT approach.

The treatment execution was initially planned to be conducted within eight hours, nevertheless, along the process of its implementation, the researcher realised that the eight hours of instruction was inadequate and therefore, the duration was extended to ten hours. The treatment started a week after the pre-test and it lasted for five weeks consecutively which means two hours a week. After the last session of the treatment, the post-test was administered.

##### **3.4.4.1 Treatment Implementation (Day 1)**

Determiners are grammatical category which functions to determine the nouns that follow them and therefore they always precede nouns (Celce-Murcia & Larsen-Freeman, 1999). Hence, the teaching of determiners can best be presented to the learners by introducing the types of nouns in English. At the same time, the determiners in BM which are labelled as '*kata penentu*' function to determine the nouns which follow or precede them (Nik Safiah Karim et al., 2008). The English nouns are divided

into two main categories which are countable nouns and uncountable nouns (Azar, 2002). On the other hand, nouns in BM are classified into two main classes namely animate nouns (i.e. human and non-human) and inanimate nouns (Nik Safiah Karim et al., 2008).

Thus, on the first day of the treatment implementation, the students were introduced to the types of nouns in both English and BM with examples. However, the idea of what a noun is and its type in both languages were generated through a brainstorming session before the input was presented to the students. Then, two diagrams which indicate the types of nouns in both languages were distributed to the students while the researcher cum teacher explained by giving relevant examples (see Appendix, page 378 and 382). Additionally, the students were also equipped with useful contextualised input which was taken from a grammar book which emphasises the teaching of grammar through its form and function (see Appendix, page 379 and 383). Apart from that, a list of uncountable nouns was provided as a supplementary handout (see Appendix, page 381).

For the practice, the students were distributed two articles which were taken from 'The Independent' and '*Utusan Malaysia*' to locate all the nouns and categorise them into their respective types (i.e. singular and plural countable and uncountable nouns for English and animate and inanimate nouns for BM) (see Appendix, page 385, 386, 388 and 389). Before completing the session, the students were given another practice which was extracted from a grammar book whereby they were instructed to identify and correct all the mistakes in the use of count and non-count nouns in an informal letter (see Appendix, page 390).

### 3.4.4.2 Treatment Implementation (Day 2)

This session was initiated by introducing the definition and types of determiners in English and BM. According to Celce-Murcia & Larsen-Freeman (1999) determiners in English are classified into four types which are possessives (e.g. ‘my’, ‘your’, ‘his’, ‘our’, Dr. Mahmud’s and Radika’s), demonstratives (e.g. ‘this’, ‘that’, ‘these’ and ‘those’), articles (e.g. ‘a’, ‘an’ and ‘the’) and quantifiers (e.g. ‘many’, ‘a few’, ‘either’, ‘all’ and ‘enough’). Alternatively, in BM, Nik Safiah Karim et al. (2008) identify two types of determiners (tr. *kata penentu*) which are demonstratives (tr. *kata penentu belakang*) (e.g. ‘itu’ and ‘ini’) and quantifiers (tr. *kata penentu hadapan / kata bilangan*) (e.g. ‘segala’, ‘beberapa’, ‘dua’, ‘para’ and ‘sedikit’). Although there are several types of determiners, the students were informed that for the purpose of the study, only two of them (i.e. demonstratives and quantifiers) would be focused throughout the treatment.

From the first phase of the study, that is through the analysis of invariant meaning which was obtained for each of the demonstratives and quantifiers in both English and BM, these grammatical items were grouped into their respective classes based on their meanings explored. Thus, the English demonstratives and quantifiers were found the equivalent in BM and grouped. As there were nine groups identified for the quantifiers, in this session, the indicators of large entity (i.e. ‘hundreds of’, ‘ratusan’, ‘beratus-ratus’, ‘thousands of’, ‘ribuan’, ‘beribu-ribu’, ‘jutaan’, ‘berguni-guni’, ‘many’, ‘banyak’, ‘para’, ‘ramai’, ‘a large number of’, ‘a large amount of’, ‘a great number of’, ‘a great deal of’, ‘the majority of’, ‘an abundance of’, ‘plenty of’, ‘a lot of’, ‘lots of’, ‘much’, ‘more’, ‘most’, ‘numerous’, ‘various’ and ‘pelbagai’) were introduced explicitly to the students.

This was achieved when the students were instructed to highlight all the demonstratives and quantifiers located in the English and BM texts which were

provided during the first day of treatment. The students were asked to group these determiners into their respective classes based on their meanings that they know. Then, a handout on the analysis of invariant meaning and another handout which consists of the analysis of count and non-count nouns and animate and inanimate nouns were distributed to the students (see Appendix, page 315 and 326). These handouts were prepared through the findings obtained from the first phase of the study.

Furthermore, sample sentences which highlight the use of the demonstratives and quantifiers which indicate large entity were distributed to the students and explained to expose the students to the functions or rather use of these words in real context (see Appendix, page 392). As for the practice, the students were given two cloze passages (English and BM) which were taken from ‘The Independent’ and ‘*Utusan Malaysia*’. These passages were modified and retyped by omitting some of the demonstratives and quantifiers and hence, the students were asked to fill in the blanks with the correct words (see Appendix, page 404 and 408). At the end of the session, the original texts were revealed and discussed with the students while the researcher explained the answer (see Appendix, page 406 and 412).

#### **3.4.4.3 Treatment Implementation (Day 3)**

The third day of treatment was totally employed for a few other groups of quantifiers which are indicators of small entity (i.e. ‘a little’, ‘*sedikit*’, ‘a bit of’, ‘less’, ‘least’, ‘some’, ‘*sesetengah*’, ‘several’, ‘*beberapa*’, ‘a few’, ‘fewer’, ‘fewest’, ‘a couple of’ and ‘a number of’), individual entity (i.e. ‘each’, ‘*tiap-tiap*’, ‘every’, ‘*setiap*’ and ‘*masing-masing*’), the whole entity (i.e. ‘all’, ‘*semua*’, ‘*segala*’, ‘*sekalian*’, ‘*seluruh*’, ‘both’ and ‘*kedua-dua*’), optional entity (i.e. ‘any’ and ‘either’) and zero entity (i.e. ‘any’, ‘neither’ and ‘no’). The researcher provided a handout with a list of quantifiers and required the participants to fill in the tables by placing these quantifiers with the

noun types that they can co-occur (see Appendix, page 416 and 417). Then, the students were allowed to verify their answers with the handout given in the previous treatment session which featured the analysis of count and non-count nouns and animate and inanimate nouns.

Before explaining the meaning of these quantifiers by looking into their similar and different characteristics, the researcher called the students to share their knowledge on how these words function. Besides, some sample sentences which were extracted from the English and BM written corpus as well as the authentic resources such as ‘The Independent’ and ‘*Utusan Malaysia*’ were supplied to enlighten the explanation (see Appendix, page 418). In addition, the two texts which were discussed in the previous treatment session were distributed again to the students to highlight these groups of quantifiers and see how they have been used in these written materials (see Appendix, page 406 and 412). As for the final task, the students were asked to complete two conversations with the correct quantifiers and nouns in brackets (see Appendix, page 433 and 434). The mid-test was held after completing the session.

#### **3.4.4.4 Treatment Implementation (Day 4)**

The Day 4 treatment covered the remaining groups of the quantifiers which are partitives / classifiers (i.e. ‘a piece of’, ‘a slice of’, ‘an item of’, ‘*sekeping*’ ‘*sehelai*’, ‘*sebihi*’, ‘*seorang*’, ‘*seseorang*’, ‘*sebuah*’, ‘*sebatang*’ and ‘*seekor*’), cardinal numbers (i.e. ‘one’, ‘*satu / se*’, ‘two’, ‘*dua*’, ‘*dua puluh*’, ‘*tiga ratus*’, ‘*sepuluh ribu*’ and ‘*sejuta*’) and fractions (i.e. ‘two-thirds’, ‘*dua pertiga*’, ‘half’, ‘*setengah*’ and ‘*separuh*’). At the same time, another three quantifiers (i.e. ‘another’, ‘enough’ and ‘twice’) that occur independently were also explained. A list of these quantifiers was provided and the students were asked to fill in the table in the handout by looking at the noun types that these words can co-occur. The students were also asked if they could group these

words into a few categories (see Appendix, page 437 and 438). Then, the meanings were explained by the researcher by extracting examples from the sample sentences from the authentic materials (see Appendix, page 439).

After delivering the input, in order to measure the students understanding of the use of these quantifiers as a whole, the handout on the analysis of count and non-count nouns and animate and inanimate nouns which were modified by omitting all the ticks in the chart were presented to the students by requiring them to place a tick into the appropriate boxes (see Appendix, page 451).

#### **3.4.4.5 Treatment Implementation (Day 5)**

The students were exposed explicitly to the meaning of fifty words (i.e. demonstratives and quantifiers) in English and another forty words (i.e. demonstratives and quantifiers) in BM throughout the treatment. Subsequent to that, for the last treatment session as an overall practice, the students were asked to sit in a group of four and construct short or rather simple sentences for each of the words learned throughout the treatment sessions. Each group was instructed to produce ninety sentences which highlight the use of these demonstratives and quantifiers. The students were then asked to share their sentences with other groups by explaining the meaning of the words in context with the nouns which co-occur. The researcher played a role as a facilitator who explained the appropriate use of these words in context. Although there were only a few of the words discussed due to the time constraint, this session has expanded the students' involvement. Suffice to say, this was not merely a practice session but it also served as an output sharing session by the students.

### **3.4.5 Questionnaire**

Although questionnaire was not included as one of the methods of data collection in the initial stage, some recurring patterns identified in the students' writings in both English and BM inspired the researcher to distribute a list of open-ended questions to the students to explore further, the reasons for such occurrences in their writings. Questionnaire was found more appropriate than interview as a method of data collection at this stage as the students faced difficulties in articulating their thought verbally. Hence, these students expressed their views through writing by answering the open-ended questions (see Appendix, Questionnaire, page 372). There were 20 students from the experimental group who were randomly selected by the researcher. This group was chosen for the distribution of the questionnaire as there was no difference identified in the students' patterns of writings from pre-test to post-test despite the ten hour treatment.

### **3.5 Data Analysis**

For the first phase of the study, the data collected were language samples extracted from the editorials of authentic resources (i.e. 'The Independent' and '*Utusan Malaysia*') and English and BM written corpus. These language samples were analysed using the Tobin's (1990) and Reid's (1991) concept of grammatical number analysis (i.e. the Entity Number System). The findings or rather the invariant meaning of the demonstratives and quantifiers found through this analysis were used as the scoring guide for the second phase of the study which involves a quasi-experimental design (see Appendix, Table 4.1.2.1, page 315 and Table 4.1.2.2, page 326).

In the second phase, the students' English essays that were obtained through the pre-test and post-test were marked by the researcher and another English language teacher from the same institution whereas the BM essays were rated by the researcher

and a BM teacher to establish interrater reliability. For the purpose of this study, in order to see the effectiveness of the semantic-based explicit contrastive grammar instruction of the use of determiners (i.e. demonstratives and quantifiers) within the CLT approach in English and BM, the students' performance were measured by looking at the appropriate use of the determiners. As for that reason, the spelling mistakes made by the students when producing the noun phrases in their essays were ignored.

Besides, before the analysis, the language teachers were given a briefing that other elements of writing such as cohesion, clarity and content are excluded in the scoring procedure as the only focus is the use of the noun phrases (i.e. the appropriate use of the determiners). There are certain words which may function not only as determiners but also as other parts of speech. For instance, the word 'this' is not only a demonstrative but it may also take a form of a pronoun depending on its use. Hence, the teachers were reminded that these words are not the targeted ones (i.e. determiners) and should be omitted in their scoring.

There were two methods applied to calculate the scores. In the first method (i.e. score 1), the number of appropriate use of the determiners was multiplied by 100% before dividing it upon the total number of use of determiners in a particular essay. Alternatively, another method (i.e. score 2) was also employed whereby the number of appropriate use of the determiners was multiplied by 100% before dividing it upon the number of obligatory occurrences (which means the minimum number of determiners that should be used based on the instructions for the pre-test and post-test).

Along the process of scoring, the researcher found that the first method was inadequate as it may not reveal the true scores obtained by the students. This was evident in some of the students' writings who have used a very limited number of demonstratives and quantifiers which were all unexpectedly correct. This has led to a circumstance where the more words used in the writings resulted in a lower score as

there were more inappropriate uses of the determiners identified. Thus, in the second method, the figure (the number of obligatory occurrences) was determined as thirty-eight for English and thirty for BM pre-tests whereas for the English and BM post-tests were forty and thirty-two respectively. Before finalising the scores, a discussion among the researcher and the other two raters was held to justify or rather negotiate the scores awarded to the students' essays in order to achieve a general consensus. The mid-test was marked by the researcher by counting the percentage of the number of correct answers over the total number of objective items.

Although the purpose of the study is to investigate the effectiveness of the semantic-based explicit contrastive grammar instruction between English and BM in producing the English determiners (i.e. demonstratives and quantifiers), the BM pre-test, and post-test were also analysed to identify the scores to see if there is any effect or development in the students' BM writings due to the ten hours of contrastive grammar treatment.

### **3.5.1 Descriptive Statistics**

The data analysis involves both the descriptive statistics and inferential statistics. For descriptive statistics, in this research, the measures of central tendency (i.e. mean, median and mode) were calculated. Mean represents the average score of a distribution whereas median is the exact centre of a distribution of scores (i.e. middle score having half the cases above and another half below the score). On the other hand, mode is identified as the most frequently occurring value in a distribution of scores. The scores obtained in the post-tests were compared with the scores in the pre-tests. Likewise, the scores of the post-tests between the experimental and control group were also compared to find out the effectiveness of the treatment. The comparison between the mean,

median and mode scores within the group and in between groups is presented in the form of histograms.

### **3.5.2 Inferential Statistics**

To test the null hypothesis whether or not to be accepted, the paired samples t-test and independent samples t-test were performed to find out if there is any difference in producing determiners in English noun phrases between the experimental group (which received the semantic-based explicit contrastive grammar instruction of the use of determiners, i.e., demonstratives and quantifiers) and control group (which received no treatment).

### **3.6 Conclusion**

In this chapter, the procedures of data collection and data analysis have been described. The following chapter will be discussing the results and findings that were obtained through this methodology.