

## **CHAPTER 3**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.0 Introduction**

This chapter focuses on the sample, pilot study, instrumentation, methodology and procedures involved in analysing the data.

#### **3.1 The sample**

There were 9 Form 1 classes studying at Sekolah Menengah Kebangsaan Menjalara, Kepong in 1999. Two classes, Form 1 Anggerik and Form 1 Okid which were of average ability in English were picked by judgemental sampling during the last week of the 1999 academic year. The classes were said to be of average ability based on the judgement of the Form 1 English teachers. However, the bottom Form 1 classes were not selected as the students might have difficulty understanding the questionnaire and answering the cloze test, thereby introducing an extraneous variable into the study.

A total of 25 students was selected at random from Form 1 Anggerik and another 25 from Form 1 Okid, amounting to a total of 50 subjects. The subjects comprised 41 Chinese, 5 Malays and 4 Indians, aged between 13 and 14 years old. The sample was limited to the above-mentioned school for reasons of economy and convenience. The Form 1 students were selected as they had just completed their end-of-year

examination in 1999 and were available for classroom administration of the pilot study as well as the questionnaire and the cloze test. By limiting the sample to one school, the costs incurred in collecting data would be reduced. Furthermore, the school and its students were characteristic of other schools, such as Sekolah Menengah Kebangsaan Kepong Baru, Sekolah Menengah Kebangsaan Bukit Maluri and Sekolah Menengah Kebangsaan Jinjang where 80% - 90% of the student population comprised Chinese students whilst approximately 10% are Malays, Indians and others. A common feature of these schools was that Mandarin was the medium of instruction at the Primary school for the majority of the students. Another characteristic was that the majority of the students came from similar socio-economic background, for example, approximately 60% of the students' parents held blue-collar jobs. Hence, other than reasons of economy and convenience, the sample was selected from one particular school because the school and the students were characteristic of other schools in the vicinity.

From the questionnaire (**Appendix B**), the following information was obtained. Close to 60% of the students' parents held blue-collar jobs (factory workers and construction workers), whilst 40% were professionals (officers and managers). Most of the students came from homes where the household income ranged between RM801.00 to RM1500.00, whereas 14% of the students' parents earned above RM2001.00 per month.

The medium of instruction, while at Primary school, was Chinese for 82% of the students and Bahasa Melayu for 18% of them. Where exposure to English was

concerned, 64% of the subjects read between 1- 4 English books a month whilst 36% read none at all. 20% of the students had access to the English newspaper at least 3 days a week. Approximately, 85% of the students watched at least one English programme on television each week, whereas 15% did not watch any. When watching television, about 75% of the group relied on subtitles to understand the English programme, thus indicating that they had difficulty in understanding spoken English. The subjects were more interested in watching English programmes than listening to English radio programmes. More than half of them (56%) did not listen to English radio programmes. Hence, it can be concluded that the majority of the learners had limited exposure to English.

In social interactions, 76% of the subjects used Chinese to communicate with their friends, parents, brothers and sisters, while 12% of them used Bahasa Melayu with their friends. Only 6% used English in their daily communication. The first language for 80% of the students was Chinese, 12% of the students, Bahasa Melayu, 4% of the students, English and 4% of the students, Tamil.

The students' proficiency in English was gauged from the percentage marks obtained in the English language paper for the end-of-year examination in 1999. 20% of the students scored between 78-100 marks, 56% scored 41-70 marks and 24% scored 0-40 marks. Thus, slightly more than half of the subjects were of average proficiency in English.

### 3.2 A pilot test

The measurement instruments used in the pilot test were a cloze test (**APPENDIX A**) and a questionnaire (**APPENDIX B**). The cloze test and the questionnaire were pre-tested by a Form 1 English teacher in Form 1 Kekwa where 10 students were selected at random two weeks before the end of the 1999 academic year. The purpose of the pilot test was to ascertain that the cloze test did not contain any ambiguous questions, that the questions had one correct answer as far as possible to ensure reliability and that the questions were not too difficult or too easy for the students. The questionnaire aimed to find out if the questions were comprehensible. The purpose of the pilot test was also to find out if students could complete the questionnaire and the cloze test within one hour.

To rule out ambiguous questions, the researcher listed the acceptable responses to every question. For example, in the pilot study, Question 45 first appeared as “She ..... exercises twice a day”. The acceptable responses were “*has*”, “*does*”, “*always*” and an unfilled blank. However, the researcher’s purpose was to test the use of the auxiliary, “*does*”. Hence, in the cloze test, in order to elicit the response “*does*”, the researcher changed the question to “She .... not do aerobics twice a day”. This was to rule out ambiguity.

To ensure that each question had one correct answer as far as possible, the response to every question was marked and noted to ascertain the acceptable responses.

However, 14% of the questions contained more than one acceptable response. Since the items tested subject-verb agreement of the Present Tense form, 14% of the questions with two or three acceptable answers which required the use of the subject-verb agreement of the Present Tense form did not affect the validity of the test.

To determine whether the questions were of average difficulty, the researcher noted the scores of the students, added them up and divided the total score by 10. The scores of the 10 students in terms of percentage were: 23, 24, 53, 53, 55, 57, 58, 58, 76 and 84. Hence, the average score of the 10 students in the pilot study was 54.1 %. Based on the average scores of the students, the cloze test administered in the pilot study was found to be of average difficulty.

As for the questionnaire, students understood what was required of them as most of the questions required a “yes” or “no” answer. However, Question 12 posed some problems as one student asked for clarification. Hence, the original Question 12, “In what language do you speak with your non-Malay friends, your Malay friends, your parents, brothers and sisters?” was simplified to “In what language do you speak with your friends, parents, brothers and sisters?” In the first column, the words, “Mandarin” and “Chinese dialect” were deleted and replaced with “Chinese”.

The majority of the students completed the questionnaire and answered the cloze test within an hour. A few took an extra ten minutes. Thus, administering the questionnaire and the cloze test was not time-consuming.

### **3.3 Measurement instruments**

The research tools used for the study were a pilot test (3.2), a cloze test and a questionnaire.

#### **3.3.1 A cloze test**

The term cloze procedure means the “systematic deletion of words from the text” (Heaton, 1975; Oller, 1979) and replacing these deleted words with blanks. Chitravelu et al. (1995) suggest that the term cloze procedure can be divided into two types of systems:

1. Random cloze - when words are deleted not according to any criteria fixed by the writer but wherever the nth word falls, such as, the deletion of every fifth word from the text.
2. Rational cloze – when the test writer chooses the kinds of words he wants to delete, such as, prepositions.

The researcher adopted the rational cloze which was preferred to a free-writing task for a number of reasons. Firstly, a fairly large number of previous studies focussed on free-writing compositions (Chee, 1969; Mohideen, 1984; Faridah, 1985; Nair, 1990; and Wee, 1995). So, there is a need to employ a cloze test to elicit data. Secondly, cloze is used to test grammar, vocabulary, reading and writing skills (Chitravelu et al., 1995). Thus, the researcher felt that a well-designed cloze test would cover several aspects of the Present Tense subject-verb agreement forms at

full range. On the other hand, a free-writing topic would not generate a text with the full range of the Present Tense subject-verb agreement items. This is because students tend to employ the avoidance strategy (Schachter, 1974). In other words, learners have a tendency to avoid TL items they are not sure about so as not to commit errors they would be expected to commit. Hence, the cloze test has an added advantage as it helps to eliminate the avoidance strategy. Thirdly, the cloze test is fairly easy to construct, easily administered and scored (Oller, 1979; Madsen, 1983). Fourthly, being largely objective in nature, it has a high degree of reliability (Chitravelu et al., 1995), as responses are marked either correct or incorrect, thus reducing the element of subjectivity. Lastly, since the cloze test is contextualised, it is meaningful to the students. Hence, the rationale for a cloze test.

The cloze test was designed to focus on the various aspects of the Present Tense subject-verb agreement forms within the scope of the study. Students were required to fill in the blanks with one-word answer using the Present Tense subject-verb agreement. There were 80 blanks, testing a total of 32 singular pronouns, 32 plural pronouns, 8 singular countable nouns and 8 plural uncountable nouns. The test could be considered reliable since there were 80 blanks. As Heaton (1975) suggested, for a test to be reliable, there should be forty or fifty blanks.

As stated earlier, it is beyond the scope of this study to include all forms of “subjects” relevant to verb agreements. Consideration was also given to the frequency of each item being tested. Each item was tested at least twice to enable the researcher to determine whether the deviant form made was an error or a mistake.

### **3.3.2 A questionnaire**

A questionnaire (**APPENDIX B**) was designed to elicit information about the students. Data from the questionnaire were analysed according to frequency counts and then converted to percentages.

## **3.4 Method of data analysis**

The method of data analysis employed in this study comprises the following steps:

- i. Collection of data
- ii. Identification of errors
- iii. Classification of errors
- iv. Quantification of errors
- v. Description of errors
- vi. Analysis of errors

### **3.4.1 Collection of data**

As stated earlier, a questionnaire and a cloze test were administered during the last week of the 1999 academic year. Altogether, 50 sets of the questionnaire and 50 sets of the cloze test were administered to 50 Form I students. The students answered and

returned the 50 sets of questionnaire and cloze test. The data obtained from the cloze test were marked and the errors were identified.

### **3.4.2 Identification of errors**

The errors were identified by means of checking the response to each numbered blank to assess if it contained the correct subject-verb agreement and whether it conformed to the L2 grammar. For the purpose of this study, an error is defined as a deviant form which does not conform to the standard British English usage. The incorrect responses extracted from the cloze test were checked against the grammar of the English language as described by Palmer (1965).

In this cloze test, any word that seems appropriate for the blank is accepted. Since 86% of the questions required exact answers, the responses were marked either right or wrong. However, the answers to Questions 6, 8, 13, 49, 52, 66, 67, 69, 72, 77 and 80 which have more than one correct and acceptable answer, were marked correct. As suggested by Chitravelu et al. (1995), it is common to allow semantically acceptable replacements as correct. Hence, the marking is about 86% objective and highly reliable, thus reducing the element of subjectivity.

### 3.4.3 Classification of errors

The subject-verb agreement items incorporated in the cloze test were classified and analysed according to five categories. Each category comprised the singular and plural subject-verb agreement errors. It should be noted that the First Person Pronoun, I is treated as a singular subject as in “Singular subject *I + am*” and as a plural subject in “Plural subject *I + do*”, “Plural subject *I + have*” and “Plural subject *I + full verb*”. The distribution of the subject-verb agreement forms in the cloze test appears in the order shown and is as follows:

#### Category 1

##### Singular subject + auxiliary *does* and Plural subject + auxiliary *do*

Pronoun	Auxiliary verb	Question number
Third Person Singular ‘She’	does	45,46,48
Third Person Singular ‘He’	does	25,26,27
Third Person Singular ‘It’	does	59,60
First Person Plural ‘I’	do	6,8
Third Person Plural ‘They’	do	16,19
Second Person Plural ‘You’	do	76,77
First Person Plural ‘We’	do	67,70

## Category 2

**Singular subject + auxiliary *is*, Plural subject + auxiliary  
*are* and Singular subject + auxiliary *am***

Pronoun	Auxiliary verb	Question number
Third Person Singular 'She'	is	39,47,51
Third Person Singular 'He'	is	28,29,33
Third Person Singular 'It'	is	53,55,61
Third Person Plural 'They'	are	12,14
First Person Plural 'We'	are	65,68
Second Person Plural 'You'	are	73,75
First Person Singular 'I'	am	2,4

## Category 3

**Singular subject + auxiliary *has* and Plural subject + auxiliary *have***

Pronoun	Auxiliary verb	Question number
Third Person Singular 'She'	has	40,49,52
Third Person Singular 'He'	has	23,24,30
Third Person Singular 'It'	has	54,56,57
Third Person Plural 'They'	have	17,18
First Person Plural 'We'	have	66,71
Second Person Plural 'You'	have	74,78
First Person Plural 'I'	have	7,9

#### Category 4

**Singular subject + *full verb* and Plural subject + *full verb***

Pronoun	Full verb	Question number
Third Person Singular 'She'	takes/goes	43,50
Third Person Singular 'He'	gives/feeds	34,35
Third Person Singular 'It'	flies/falls	62,63
First Person Plural 'I'	live/help	3,10
Third Person Plural 'They'	work/make	13,15
Second Person Plural 'You'	give/keep	79,80
First Person Plural 'We'	try/ask/request	69,72

#### Category 5

**(i) Countable nouns + *auxiliary verb***

Countable nouns	Auxiliary verb	Question number
My name	is	1
Tom	is	20
Aina	is	38
Tom and Aina	are	11
The cats	are	31
The dogs	are	32
The dogs	are	36
The wings	are	58

### Category 5

#### (ii) Uncountable nouns + auxiliary verb

Uncountable nouns	Auxiliary verb	Question number
Mathematics	is	5
Sports	is	64
His hair	is	21
Her hair	is	41
His skin	is	22
Her skin	is	42
The food	is	37
Health	is	44

The analysis of the five main categories is seen in Chapter 4.

#### 3.4.4 Quantification of errors

The data on the subject-verb agreement of the Present Tense were corrected based on the British English Usage as described by Palmer (1965). It should be noted that every erroneous answer was given a numerical value of one, whereas, correct answers were not scored. The total number of errors for a particular numbered blank was converted to percentages. The percentage of errors is derived by dividing the total number of errors by 50 and multiplying the number by 100.

The frequency for the different types of incorrect responses for every question was collated and the incorrect response with the highest number of occurrence was noted as the most common error for that particular question.

### **3.4.5 Description of errors**

The description of the errors was based on the English rules for the subject-verb agreement of the Present Tense form cited in Palmer (1965). Though the cloze test examined students' proficiency in subject-verb agreement of the Present Tense form, the grammatical errors made by students also showed the use of non-verbs instead of verbs. Among the different kinds of grammatical errors made for each numbered blank, the error which recurred often and had the highest frequency was noted and was regarded as the most common error (**Appendix C**). The most common error was then described in terms of deviations from the English language grammatical rules and the probable causes of error explained based on intralingual or interlingual factors. At the end of the analysis of every category of errors, a comparison was made as to which aspect (singular or plural subject) posed more problems to the learners, and the causes of errors gleaned from the analysis were stated.

### **3.4.6 Analysis of source of error**

The main aim of the analysis of source of errors is to identify the possible causes of errors. As suggested by Cook (1993), the researcher attempts to explain the sources of deviations based on the grammar of the second language. The possible sources of

errors were gleaned from intuitions about the L1 (Mandarin, Bahasa Melayu and Tamil) rule system, intralingual causes of errors, teaching methods, learning strategies and other probable sources of errors. By analysing the sources of errors, the teacher may be able to understand the learning problems faced by the students and thus, be in a better position to help the students resolve their language problems.

The application of the above description is seen in Chapter 4.