# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.0 Overview

This chapter presents the various instruments used, formal and informal to assess the reading skills of the subjects under study. By adopting detailed assessment procedures and taking the time to observe the subjects involved, it is possible to identify the weaknesses of the subjects' reading performance brought about by their dyslexic condition.

The five subjects involved in this study are all males of Chinese origin and are between eleven and twelve years of age. The profiles of the subjects are recorded for reference. The collection of data includes general observation, interviews conducted with class teachers and also parents, checklists of dyslexic symptoms and formal assessments of language skills focusing on reading.

All the samplings were carried out in English.

## 3.1 Tests instruments

This study uses formal and informal tests to obtain details about the subjects' dyslexic symptoms and the weaknesses in their reading performance.

### 3.1.1 General Observation

Observation is generally the most important method in detecting the subjects with a dyslexic condition and reading disability. Observational techniques whether formal or

informal can sometimes lack validity because teachers need to develop skills in observing children in ways that will not create false impression or lead to conclusions that are biased to the hopes and wishes of the observer. In order to combat such shortcomings, the teacher needs to work on structured situation for observation and these are the subjects own products, by the broader definition, tests and are valuable source of information about the subjects' progress and current level development.

With a standard guideline from the British Dyslexia Association (Appendix 2 and 2(a) and a general dyslexia checklist from the Federal Territory Dyslexia Association (Appendix 3) the subjects of the study are observed and the results recorded (Appendix 4a – 4e).

The Standardized School-Based Oral/ Reading Assessment Results are also being observed and noted for two consecutive terms (Appendix 5a – 5e).

**3.1.2 Questionnaire for the subjects' parents** (Appendix 6)

The mothers of the subjects were interviewed to obtain personal data about the subjects. A questionnaire was formulated to obtain the details of the subjects' family background. Profiles of the subjects were also drawn up which detailed his personal data. (Appendix 6a)

Additional questions were also presented in the questionnaire to gain more details so as to draw up some clues to account for the present reading difficulties of the subjects.

**3.1.3 Questionnaire for subjects' class teacher** (Appendix 7)

The class teacher of the subjects was interviewed to obtain basic academic details of the subjects. A questionnaire was formulated to obtain details of the subjects' performance in the classroom and academic achievements and behavioral characteristics

**3.1.4 Hearing Skills** (Appendix 8)

This serves as a diagnostic test because phonological recoding contributes to reading development. Phonological recoding refers to the use of systematic 70 relationship between letters and phonemes ( Elbro, Borstrom & Peterson, 1998).

**a) Syllable Identification**

The subject was presented with a single syllable spoken by the tester, while being shown 4 pictures. The subject was then asked to choose the word beginning with that syllable (Pointing or saying the correct response).

The subject was asked to name all the pictures before starting the procedure. By doing so, the researcher hoped to make sure of the subjects' phonological recoding ability which is the prerequisite of reading development. Here, the vocabulary of the subjects would not be tested. There were 2 practice items and 8 test items.

**Scoring**

The number of correct responses was recorded.

**b) Phoneme Identification** (Appendix 9)

The subject was presented with a single initial phoneme spoken by the tester, while being shown 4 pictures. The subject was then asked to choose the word beginning with the phoneme, (pointing or saying the correct response). The subjects were asked to name all the pictures before starting the procedure.

There were two practice items and 8 test items.

**Scoring**

The number of correct responses was recorded.

**3.1.5 Phonemic Segmentation** (Appendix 10)

Dyslexic children are usually delayed in acquiring the ability to detect rhymes and this can lead to difficulties in learning to read. The ability to split words into their constituent sounds by the subjects is an initial measure of an impending reading problem. Phonemic segmentation is part of the (10-Item Diagnostic Screening Test) for dyslexia.

**Procedure**

In this test, the assessor read the words and then asked the individual subjects to segment them (break them down into their constituent parts) by deleting a syllable or consonant.

Examples were given prior to the testing to ensure that the subjects understood the procedure.

**Scoring**

One point was given for each correct answer. The assessor repeated the word once. If the subject was not able to give an answer or gave a wrong answer, the assessor would continue with the next word.

**3.2 Tests to assess Decoding Skills and Reading Skills**

The observational techniques, interviews, questionnaires and phonemic segmentation used earlier, are basically for detecting a dyslexic condition of the subjects under study. The decoding test was relevant as it tested the knowledge of alphabets, letter sounds and

blending skills that are useful phonological skills for reading and spelling (Stackhouse 1990). These tests will give an idea of the subjects' phonological awareness.

### 3.2.1 Assessing Decoding Skills

Letter-name knowledge has proven to be a remarkably good prediction of eventual reading and spelling attainment (Stackhouse 1995). Children with good letter-name knowledge are more likely to have phonological skills.

The decoding test consisted of a number of sub-skills. They are:

a) The ability to divide the word into its speech sounds. For example: "jam" to [ j ] [a] [m]

b) The use of letter-sound knowledge to translate each letter to appropriate speech sounds.

For example: c to [k]

c) Blending the speech sounds to form a word.

d) Identifying the correct word and its meaning.

**Procedure**

The subjects were given a piece of paper and pencil and were asked to write down all the letters of the alphabet. Then, the subjects were asked to recite the speech sounds for each of the letters. Next, the subjects were asked to recite all the sounds of the letters. They were also asked to read four sets of letter blends (CV, CVC, CVVC,CVCC) (Appendix 11).

**Scoring**

The errors made by the subjects were observed and noted down.

### 3.2.2 Testing reading skills

What is meant by difficulty in learning to read?

Reading is a developmental skill and it is one of the major skills of language development. It improves with the age and increasing maturation of the child. There are also degrees of reading failure. A child of six may have hardly made a beginning in reading, but this is quite a different matter from a child of nine or ten who is reading at the level of a very beginner. It is quite evident that children with dyslexia have acute difficulties with their reading skills which will affect their overall literacy development.

**a) Reading single words** (Appendix 12)

When a child first learned to read, he would start off with simple skills of recognizing letters. A list of single words was drawn up from Level 1 to Level 10 with 10 words in each level. The words were tested on the subjects.

**Procedure**

The graded word list was found in the normal school curriculum for children between 7 to 12 years old. Most of them were common words of various syllabic (CV) combinations and complexity. This test was to assess the word attack skills of the subjects. The test was given in a friendly atmosphere where the subjects were relaxed and thoroughly at ease.

The subject started the test by reading the words. If he failed to read any word, however, the preceding group of ten words was given until all the ten were read correctly. Credit was given for all words preceding this point. Testing was discontinued when the subject failed to read the consecutive 10 words.

**Scoring**

The number of mistakes and the type of errors made were recorded.

**b) Reading word phrases** (Appendix 13)

Once the subjects had completed their tasks in word recognition, they would progress to the reading of word phrases in the form of doubles.

**Procedures**

Ten word doubles were drawn up and the subjects were tested individually. Examples are: bread and butter, fish and chips, milk and honey. These word doubles were found in the English textbooks of the subjects targeting students from 10 to 12 years old. Each of the subjects was given around one minute to look through the word doubles before reading them out.

**Scores**

The number of mistakes and the type of errors made were recorded.

**c) Reading sentences** (Appendix 14)

The subjects would have progressed from word recognition skills to reading of phrases. At this point they would be tested on sentence reading.

**Procedure**

Ten simple sentences were written out on a piece of paper and the subjects were given one minute to look through the sentences. Then, they would read the sentences once through line by line.

**Scores**

The number of mistakes and the types of errors were recorded.

**d) Reading sentences in a paragraph** (Appendix 15)

This would be the final stage of testing for the subjects.

**Procedure**

Each of the subjects was given a simple paragraph to read from their English textbook. They were given around one minute to look through the text before they were asked to proceed. They would read the text once through.

**Scores**

The number of mistakes and errors were recorded.