

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

#### 3.0 Introduction

The key aspect in this study is obviously the teachers' perspective. Their opinions, attitudes and practices are the major components in deciding the instrumentation for this study to investigate the reading problems among students in urban secondary schools. In view of the time constraint, a single-time description or a cross-sectional study was undertaken to investigate the problem. The data were collected at one point in time from a selected sample of teachers drawn from a predetermined population. The findings would then describe the larger population at that time (Babbie, 1990: 56). According to Fraenkel & Wallen (1996), although the actual data collection procedure may involve a few weeks, the findings would still reflect the problem at just one point in time. Based on this time frame, it was relevant to adopt a research design that collects data effectively in a short period of time.

A methods triangulation research design through a combination of methods was adopted to enhance the validity of the data collected (Fraenkel & Wallen, 1996: 461). Triangulation can be achieved within a qualitative inquiry or by combining qualitative and quantitative methods. For this study, the latter approach was employed whereby a

questionnaire comprising both close and open-ended questions was combined with a semi-structured interview. Patton (1990) has suggested triangulation as an important way to strengthen a study design in which various types of data provide cross-data validity checks. Similarly, Fraenkel & Wallen (1996) have stressed that triangulation enhances the validity of data collected from a number of different instruments. This approach was expected to permit different aspects of empirical reality as Patton (1990) further cites that the use of triangulation recognises that the researcher needs to be open to more than one way of looking at things (Patton, 1990: 193).

### **3.1 Subjects**

The core insight sought in this study was to investigate the reading problems of students from a teacher's point of view. As such, the 30 subjects involved in this study were teachers in urban secondary schools.

#### **3.1.1 Sample Selection Procedure**

A cross-sectional study such as this needs a representative sample who can provide substantial data to validate the findings. Researcher's judgement based on prior knowledge of the population concerned was deemed adequate to support this decision. Babbie (1990) has pointed out that it is appropriate to select the sample based on the researcher's knowledge of the population, its elements and the nature of this study.

Consequently, a non-random, purposive sampling procedure was employed to allow efficient elicitation of data from the selected subjects who are considered reliable respondents. The approach was to study a representative group of a larger population by selecting the "information-rich" cases (Patton, 1990: 169). According to Judd et. al. (1991) the representative group has to be identified based on the assumption of the researcher's good judgement of the subjects' typicality of the population.

The criteria for selection was narrowed in view of the area of study which demands specific knowledge and experience on the part of the potential respondents. Thus, selection proceeded with these pre-determined factors to identify the required sample. Upon finalising the sample description, the teachers were selected as potential subjects through the help of their immediate superiors ("Ketua Panitia") who are required to keep a record of the ESL teachers of their respective schools. As a result, the most suitable senior teachers who have the experience of teaching at the upper secondary level were selected. This move to seek the help of the person-in-charge was beneficial in saving valuable time and cost as all the selected subjects were screened before they participated in this study. Apart from this, it also helped in the matter of cooperation as the selection was not solely by the researcher but also with the consent of their superior. The 26 subjects received the questionnaires directly from their respective superiors (4 subjects) with instructions to complete the questionnaires. Hence, the incidence of denying participation was not foreseen.

### 3.1.2 Selection Criteria of the Sample

The sample selection procedure adopted in the initial stage of the research process counters the subject characteristics threat or "selection bias" (Fraenkel & Wallen, 1996: 242). Tuckman (1972) describes this factor as "people factors" which induces the bias. Fraenkel & Wallen (1996) expected subjects selected for a study to differ from one another in unintended ways that may affect the results. Therefore it was suggested that control is required to minimize their differences although it is acknowledged that the subject characteristics are virtually unlimited. As such, a considerable number of prerequisites have been imposed on the potential subjects.

In order to establish favourable and reliable data, the selection of teachers was narrowed to meet a set of criteria. It is a known fact that in the present situation in Malaysian schools, we have ESL teachers who have been trained in disciplines other than TESL but have been teaching English from the beginning of their careers. This group of teachers would not have been exposed to the teaching methodologies of reading which is relevant to the techniques used in a reading lesson. They may be language teachers but it is questionable whether their practices coincide with the requirement of a reading lesson. Their lack of exposure to the reading process and skills would prevent a systematic focus on the students' reading ability which is the crucial aspect of this study. Thus, to obtain substantial quality data, it was deemed fit to have the following set of criteria to shortlist the subjects.

The subjects were strictly required to be trained ESL teachers with a minimum qualification at diploma level in TESL. This group includes all graduate teachers trained to teach English as well as teachers with a teaching certificate who furthered their studies to diploma in TESL at a university. Teachers with this academic qualification are expected to be self-motivated in gaining knowledge through reading after the years of exposure at the tertiary level. Their experience as advanced readers will help focus their observation on their students with reading problems. A teacher with TESL training would have undergone the pedagogical training in the teaching of reading. This exposure is important to equip teachers with knowledge in the area of reading. They would have encountered areas of reading process, reading skills and various teaching methodologies for reading lessons. Their knowledge in this area would assist them to render quality data through the questionnaire to be administered.

The subjects were also required to have teaching experience in English in a secondary school of urban setting. The study was confined to an urban area as it would eliminate the possibility of having a mixed nature of reading problems. These areas are often seen in contrast in most cases as the environment differs from one place to another. Chitravelu et. al. (1995) have mentioned that "urban pupils" are believed to have greater exposure to English than "rural pupils". Hence, looking at one area in isolation would aid in concluding the findings.

Furthermore, the urban context here was further restricted to the Klang Valley with subjects from Kuala Lumpur, Petaling Jaya and Klang. The restriction was crucial in this study since the findings are expected to reveal some of the prevailing reading

problems in a highly urban setting. The state of urbanisation varies from town to town. It is not accurate to view the urban context in Kuala Lumpur to be similar to Ipoh or Malacca. It would not serve the purpose of this study if the context was not restricted and considered relevant in obtaining conclusive results.

Teaching experience in an urban secondary school was set at a minimum of three years since the data collected for teaching practices has to be reliable. With at least three years of experience, the subjects would have taught three different sets of students. Their approach to one class may differ from another. Therefore, with three different years they would at least have a reliable source to support their practices and attitudes toward students with reading problems. The years of experience would provide the maturity to identify these students and further assist in providing the required information in the questionnaire.

Among the thirty subjects chosen from 4 schools there were four teachers holding the post of Head of English Committee ("Ketua Panitia"). The rest i.e. 26 were ordinary teachers teaching English as one of their subjects. Apart from that, 6 teachers from one of the 4 schools are currently conducting a remedial reading programme in English for students with reading problems. Only 9 of the 30 teachers were teaching English as a single subject whereas the remaining 21 teachers taught another subject other than English. All these 30 teachers were from the national or national type schools.

### 3.2 Instruments

Fraenkel & Wallen (1996) described "instrument" as a device used by the researcher to collect data. The main instrument employed in this study was the self-constructed questionnaire which was administered to the 30 subjects. Prior to this, piloting was carried out in an attempt to improve the questionnaire and maximise the validity of the data collected. To further probe into the responses which were seen as incomplete, interviews were conducted. These methods lend themselves to a triangulation design to gather reliable data.

#### 3.2.1 Questionnaire

Questionnaires have been widely used in educational research to obtain information about certain conditions or practices and to inquire into opinions and attitudes of an individual or a group (Langenbach et. al., 1994). Questionnaires have been defined by Tuckman (1972: 173) as a device to gain access "inside a person's head" to obtain information. Elsewhere, Nunan (1992: 140) has described questionnaires as a method to obtain a "snapshot of conditions, attitudes and/or events at a single in time".

A questionnaire was preferred as the main tool to other instruments due to its appropriateness to be used on teachers as the respondents. With a demanding teaching schedule, they would prefer a questionnaire rather than observation, interview or any other form of assessment as the major elicitation device. The questionnaire was also a

time and cost saving tool (Fraenkel & Wallen, 1996) that proved comprehensive in gathering data for this study. Being assured of anonymity, unrestricted free response was anticipated. It was useful in gaining the necessary data within a short period of time with considerable defensibility of the inferences sought from the data collected.

The subjects' view of this study and their participation were considered a potential threat to obtaining their genuine responses. Hence, the questionnaire was very discreetly administered with great assurance of confidentiality and stressed the need for a true picture of the existing phenomena. However the subjects, being experienced teachers, were cooperative and had a favourable understanding which aided the administration of the questionnaire.

### **3.2.1.1 Questionnaire Construction**

Fraenkel & Wallen (1996) stated that there are some basic considerations every researcher needs to think about with regard to the choice of instrument. The first is validity, measuring what is supposed to be measured. The second is reliability or consistency of the results and finally, there is objectivity or the elimination of subjective judgements. Judd et. al.(1991) outlined a step-by-step guide in constructing the questionnaire. With these in mind, the researcher constructed the questionnaire as the main instrument.



### 3.2.1.1.1 Questionnaire Format

The specific content areas to be covered by the questionnaire for this study were decided in accordance with the four research questions, which covers the central areas i.e. students' reading problems, teachers' attitudes, teachers' practices and measures adopted. These areas gave rise to sections B, C and D respectively. Existing questions and scales were referred to for the construction of questions for each of these sections. As a result, questions from DeFord's Theoretical Orientation of Reading Profile (see Appendix A) and Estes Attitude Scale (see Appendix B) (McCormick, 1995) were modified for the questionnaire. Section A was included to gather information on the respondents' background which was used to validate the data collected from sections B, C and D.

The questions written for the 4 sections covered both close-ended and open-ended types. Several open-ended questions were converted into close-ended questions based on the responses obtained from the pilot testing. Wherever possible, an "others" option was provided to allow the subjects to give free response. The sequence of questions was designed to facilitate data analysis. Questions were grouped according to specific areas within each section with consideration for data tabulation.

Tuckman (1972) stressed the application of certain criteria in preparing a questionnaire. He stated that the questions might influence the respondents to respond in a particular manner such as showing only the positive side of themselves or trying to please the researcher. He also cautioned researchers to avoid questions which are beyond

the respondents' knowledge. All these considerations were taken into account when wording the questions for the questionnaire used in this study.

Babbie (1990) has pointed out that every questionnaire should have clear and appropriate instructions. This aspect was adhered to by providing specific instructions to elicit the required response. All the 4 sections have individual instructions and introductory comments.

The response modes chosen for the questionnaire were unstructured response, fill-in response and scaled response (Tuckman, 1972). The choice had been made based upon the type of data desired for analysis, flexibility in responding through the open-ended questions and ease of response. In section A, a demographic scale has been used to elicit personal information about the respondents. Sections B, C and D use a scaled response. The scale developed by Likert (1932) with a five-point scale with the options "strongly agree", "agree", "uncertain", "disagree" and "strongly disagree" was used for items 23-34. Judd et al. (1991) indicated that a Likert-type scale is used for monotone items i.e. items which show a clearly favourable or unfavourable response. A scale with the options "always", "frequently", "sometimes" and "never" was used for items 8-17 and 36-41. This scale indicates frequency options similar to the scale used by Halpin (1966) in his Organizational Climate Descriptive Questionnaire (OCDQ) (Tuckman, 1972). He used the options "rarely occurs", "sometime occurs", "often occurs" and "very frequently occurs".

The format of a questionnaire or the layout of the questions is very important in influencing the respondents to respond (Fraenkel & Wallen, 1996: 376). According to

Babbie (1990), the questions should be spread out with a lot of "white space". Based on these suggestions, a questionnaire of 10 pages (see Appendix C) was prepared for this study.

### **3.2.1.1.2 DeFord's TORP and Estes Attitude Scale**

In an attempt to construct a comprehensive questionnaire, 2 existing tools were referred to in the formulation of several items, namely the DeFord Theoretical Orientation to Reading Profile (TORP) (see Appendix A) and Estes Attitude Scale (see Appendix B). They could not be administered as a complete instrument due to the varying subject characteristics since DeFord's TORP focuses on reading instructions for children. This implies that the teacher should be involved with children to be able to answer all the questions. This context did not apply to the subjects of this particular study who are currently teaching students at the secondary level. Therefore, it was modified to suit this study. Similarly the Estes Attitude Scale has been validated for students to respond to but in this study, the respondents were teachers. Therefore necessary modification was made to accommodate this study.

The DeFord Theoretical Orientation to Reading Profile (TORP) created by DeFord in 1985 to assess teachers' practices and beliefs on reading and reading instruction was used to focus the areas to be investigated in gauging the reading problems of students. It provided a guide to the formulation of several items on teachers' attitudes and practices. Items 2,3,8,23,30, and 31 in DeFord's TORP were rephrased to

fit the questionnaire administered in this study bearing in mind that the 'child' in DeFord's TORP would now be secondary school students. Significant problems in reading were given due reference in the questionnaire through this tool. From this tool, we can infer the various areas in reading which require attention. The phonetics, structural analysis and comprehension of a text did appear relevant in assessing the reading problems of students.

Apart from the abovementioned tool, Estes Attitude Scale (Estes, 1971) was referred to for item 22 in the questionnaire where respondents were asked to indicate their students' attitudes towards reading. This particular item stressed an important principle in improving the reading performance of an individual. Among the 20 item scale, only items 1,3,4,5,23,26,27 and 35 were suitable. These were then rephrased to accommodate the differing class of respondents in this study since the Estes Attitude Scale is meant for students to respond to.

To engage oneself in a reading activity, one has to develop a positive attitude toward reading. Thus, item 22 was relevant in gaining an insight into the reading problems of students in secondary schools and teachers can perceive their students' attitudes about reading through the experience and from the students' response in their ESL classroom.

### **3.2.2 Pilot Questionnaire**

Piloting the questionnaire was a vital feature of the entire research process. As

cited by Nunan (1992: 145), "it is imperative to pilot any questionnaire". The pilot was conducted to ascertain whether the items had the desired qualities of measurement and discriminability. It allowed a variety of failings such as ambiguous and poorly worded items and poor instructions to be diagnosed and corrected for the final administration. In other words, the pilot "debugs" the questionnaire (Tuckman, 1972: 200).

The pilot was administered to gauge the flaws in the questionnaire items. The main focus was to diagnose and correct any errors in the items and to rephrase, delete or add to the existing construction of the questions. Items which appear inappropriate, vague, inadequate, misleading, redundant or even limiting would be attended to. It was also a device to recommend the best layout of the various sections and the spacing of the items.

The pilot questionnaire was administered to 5 ESL teachers with at least 10 years of teaching experience in English in urban secondary schools. Their responses and comments were valuable in amending the items concerned. Their exposure in the field provided a reliable perspective desired for this study. The teachers completed the questionnaire with the researcher present and in the process any problem that emerged was given due attention. The problems were dealt with on the spot after discussing the possible solution for improvement. The respondents were indeed very supportive in rendering their personal ideas on this matter to the researcher. Their cooperation allowed a thorough scrutiny of the questionnaire items.

The respondents were informed of the motive in engaging them as subjects for the pilot. This fact prompted them to supply concrete and informative ideas in amending

the items. Their readiness to offer these ideas was also probably due to the fact that all of them have the relevant exposure in this field. Their cooperation to respond as required by the researcher provided various valuable points of views. In addition, the personal contact with the respondents helped tremendously with the smooth administration of the questionnaire later and their contribution was essential in achieving the objectives of conducting the pilot.

The administration of the pilot questionnaire did serve its objective as some minor changes had to be made to improve the items. Modifications in rephrasing and spacing of specific items were made but the total number of questions was maintained. Content-related evidence of validity was also obtained during the pilot. The format of the instrument was given due consideration including the clarity of printing, length, working space and appropriateness of terminology used. Based on all the feedback from the pilot, a final questionnaire was prepared for administration.

#### **3.2.2.1 Evaluation of the Pilot Study**

The type of questionnaire adopted for this study is not entirely a closed questionnaire. The pilot questionnaire had a combination of closed questions where the respondents were just required to tick responses of their choice as well as open-ended questions. Working space was provided for the subjects to respond freely to several items. The piloting revealed a preference for the first format by all the 5 respondents since it did not take much of their time to complete the questionnaire.

The pilot study also revealed some weakness in the layout. One of the subjects had missed item 9 completely and the oversight was attributed to the cramped layout. Here the inadequate spacing was the cause for non-response and adjustments were made to the layout in the revised version.

Apart from that, errors were found in the wording of item 16 (iii) where the past tense is used unlike (i) and (ii) which uses the present tense. A minor addition was made to avoid misreading.

Items 7,23,34 and 36 were provided with the "others" alternative to elicit responses other than the stated alternatives. These responses are expected to reveal some of the factors that the researcher may have overlooked. As such, the responses for the alternatives provided were added but the "others" alternative was still maintained for the larger sample.

One particular question, item 35, was identified as limiting response from respondents who are currently engaged in a remedial reading programme. The question had been formulated based on the contingency question format (Fraenkel & Wallen, 1996: 377) i.e. it is contingent upon how a respondent answers the first portion of the question. However, this had to be modified to elicit responses from respondents who answer either "yes" or "no". This was unique because the follow-up question which deals with problems implementing remedial reading programmes applies to both groups of respondents. Therefore, in the improved version, the implementation obstacles also applied to teachers who were conducting remedial reading programmes. This item also had the open-ended portion modified with the provision of alternatives including an

"others" alternative. This was deemed relevant since only one respondent attempted to answer it and the rest claimed it was time consuming to think of the relevant suggestions.

Based on this thorough evaluation, 30 copies of the questionnaires were prepared for administration together with the cover letters (see Appendix D).

### **3.2.2.2 Revised Questionnaire**

A cover letter was prepared to be attached to the final questionnaire. The pilot questionnaire did not have a cover letter since the researcher met all the 5 respondents personally and relevant information regarding the study was given in person. The cover letter explained the purpose of the study. Fraenkel & Wallen (1996) pointed out that the cover letter motivates the respondents to respond. It explained the objective of the study, requested the cooperation of the respondents and most important of all, assured confidentiality.

The questionnaire was specifically designed to collect data on the reading problems of students in urban secondary schools from the teachers' point of view. A teacher's perspective is sought rather than a diagnosis of the existing reading problems of the students per se. Therefore, the items were formulated to elicit information on the teachers' attitudes, practices and the nature of reading problems prevalent among their students. The sequence of the items was in accordance with the research questions and to facilitate analysis.

The questionnaire was subdivided into 4 sections (A, B, C & D) with separate



instructions for each section. This division was essential to focus on the areas of study and avoid redundancy and overlapping. Section A (items 1-7) contained questions aimed at eliciting information about the respondents' background and their teaching experience and knowledge in the remedial reading area. Their response would justify their eligibility to participate as subjects of this study. The data would be meaningful in understanding their responses in the following sections. It is indeed vital to gather information in order to substantiate their credibility as respondents since they are the only group to be involved.

In section B (items 8-22), there are 15 items altogether to elicit data related to the description of the reading problems among students in urban secondary schools. Items 8-11 focus on word recognition skills with an emphasis on phonetic and structural analysis. Items 12-14 look into the vocabulary knowledge of these students and items 15 -16 deal with comprehension skills of students during reading activities. The main components of reading are dealt with here as the responses would expose the nature of the reading problems exhibited by students in the classroom.

Probing into miscues is relevant in identifying reading problems since they affect comprehension skills. Items 17-18 directly gather information in this area. Item 18 is an elaboration of the errors mentioned in 17. The details of the errors exhibited would facilitate an understanding of the nature of the reading problems observed.

Items 19-21 deal with a description and classification of problem readers. They provide a range for the type of problem readers which would aid in identifying to a certain extent the continuum on problem readers that is prevalent in these settings.

Item 22 is specifically on students' attitudes toward reading as perceived by their teachers. This factor is vital in understanding reading problems as some may emerge due to attitudinal causes and not an inability as such.

Items in section C (items 23-35) were intended to elicit the subjects' opinions regarding students with reading problems. The research question on teachers' attitudes would be answered from the feedback here. Items 23-28 focus on the teachers' perception toward students with reading problems in their classroom while items 29-33 deal with the teachers' role in attempting remedial reading activity with their students. Item 34 brings in the role of parents as perceived by a teacher in addressing reading problems among students. Finally, item 35 gathers data on teachers' predicament in conducting a remedial reading programme. Their suggestions would aid in understanding this serious issue and developing appropriate measures to counter it.

Section D (items 36-42) specifically attends to the existing teaching practices adopted by teachers when faced with problem readers. It is aimed at gathering data related to actual measures used during a lesson. Items 36 and 37 directly attempt to elicit information on practices in a classroom setting. However, items 38-41 focus on teachers' efforts other than in the classroom setting in order to emphasise the fact that teachers' tasks seldom end within the four walls of the classroom. Item 42 provides the space and opportunity for the respondents to put forth their ideas and thoughts on the approaches. This is particularly important as some have concrete ideas on how to handle students with reading problems but are faced with constraints beyond their control. Valuable suggestions from experienced teachers can supply a feasible solution to this problem.

### 3.2.3 Interview

This tool was employed to uncover further clarification on issues that were not clearly answered in the questionnaire. Respondents may not reveal all their attitudes and practices involved despite being assured of confidentiality. In addition, open-ended items may be insufficient for some who prefer to elaborate their opinions. This restriction will reduce the quality of data collected. Being members of the teaching staff, their responses are crucial to enable us to understand the issue being studied. In view of these factors, it was relevant to have interviews as one of the tools to investigate the issues in this study.

According to Fraenkel & Wallen (1996), interviews need to be conducted at the end of a study to avoid influence on the researcher's perspectives. The type of interview conducted in this study was the standardized open-ended interview which increases the comparability of responses and facilitates the analysis of data collected (Fraenkel & Wallen, 1996: 449). With a standardized set of questions, (Appendix E) the interview sessions were focused to maximise the use of limited time and thus reduced the possibility that certain areas may be missed or asked in the wrong way (Patton, 1990: 285). Furthermore, the quality of data collected is enhanced through this instrument (Judd et. al. 1991).

In addition, interviews correct the respondents' misunderstanding, probe inadequate or vague responses, answer questions and allay concerns (Judd et. al., 1991: 218). According to Patton (1990), interviews find what is in and on the respondents' minds. He justified that the interview is conducted with the assumption that the

respondent's perspective is meaningful and can be made explicit.

Separate interviews for 30 teachers were not feasible as it was too time consuming. With teachers having less free time and additional clerical burden, it was quite doubtful if they would consent to an interview. Therefore, the subjects to be interviewed were selected.

Based on their responses in the questionnaire, a thorough study of all the responses of the thirty subjects revealed a few significant features. Some of the teachers had left out all of the open-ended items. It could not be concluded that they lacked relevant information to answer the questions as the sample was strictly limited to experienced ESL teachers. Here the probable cause could be a lack of time or dislike in expressing their thoughts and ideas in writing. Some had also attempted all the open-ended items which seemed to indicate that they had more to write than the space provided.

These findings presented the necessity to conduct interviews with these particular respondents to enhance the quality of the data collected. Subsequently, 5 were interviewed and the interviews were based on semi-structured questions (see Appendix D) and conducted face-to-face. The interviews were informal but the focus was maintained throughout the sessions. The respondents were cooperative in allowing in-depth probing to elicit information.

### **3.3 Data Collection Procedure**

The pilot was administered to 5 ESL teachers who were identified as potential subjects because they were Heads of the English Committee in their schools. They were approached and clearly informed of the objectives of this study. They were informed of the rationale in selecting them. The pilot questionnaire was given out on an appointed day and time to avoid reluctance to participate. It was completed on the spot with the researcher present. The inappropriate and vague items were studied for improvement. All the ideas and suggestions of the 5 subjects were noted for further reference. The questionnaire was then studied for modification.

The modified questionnaire was subsequently administered to 30 ESL teachers in various schools in the Klang Valley. The subjects for the pilot helped to distribute and collect the questionnaires. They were given ample time to return the questionnaires to the researcher. Since the pilot subjects were well acquainted with the questionnaire items, they took the responsibility to explain the items to the respondents whenever the need occurred. This invaluable contribution assisted the administration process whereby all the questionnaires were returned. The questionnaires were systematically collected according to the respective schools as it would aid in identifying the subjects for interviews should the need arise.

Through a cover letter, respondents were assured of confidentiality and trust. This aspect was further stressed with the pilot subjects being requested to inform the respondents that their responses would be treated with the utmost confidence and the

entire responses were intended for this study only. No reference would be made to any individual or school.

Based on the responses in the returned questionnaires, 5 respondents were interviewed. They were contacted through the initial pilot subject of that school and the interviews were conducted on a preferred day and time. No tape recordings were done and this allowed an uninhibited response. Notes were taken to complement the questionnaire items which needed probing. The interviews were informal in nature and took 15-20 minutes. The 5 respondents did not welcome the idea of being interviewed but nevertheless, they cooperated. The researcher adopting the role of interviewer could have eased the tension as it could be perceived as a teacher-to-teacher talk. Despite these shortcomings, fairly successful sessions were carried out.

### **3.4 Method of Data Analysis**

Having administered the instruments, the responses are required to be collated and interpreted. Henning (1987) has stated that a nominal scale permits frequency counts of categorical data and is used to quantify the number of occurrences or instances of objects or phenomena under specific categories. The responses from the questionnaire need to be quantified and analysed. This task would be easier with closed items in contrast with open-ended ones. However, the qualitative data can be condensed and quantified. The responses have to be summarised into quantitative validation in order to draw conclusions from the results. Frequencies of the responses on each item are counted

and converted into percentages. The same is done to the ordinal scale whereby they are summarised into percentages based on the frequency counts.

The findings will be tabulated for statistical evaluation and presented graphically in the form of tables. Prior to reduction, data will be coded accordingly. Coding is done to describe the translation of the responses into specific categories for purposes of analysis. Tabulation will be done to record the numbers of the types of responses in the appropriate category and followed with statistical analysis.

### **3.5 Limitations of Study**

This study was conducted to obtain teachers' perspective on the reading problems of students in urban secondary schools. It was confined to 30 subjects from a few selected schools in the Klang Valley. The researcher is well aware that a sample size such as this would limit the generalization capacity of the findings. The researcher is also aware that areas within the Klang Valley may differ in urbanisation level and some schools cannot be categorised as urban though geographically they are. A thorough study of the schools selected was done but the element of misinterpretation is a possibility. Furthermore, a teacher may have been teaching in various schools within the urban area concerned. Although all of the schools taught in are in the Klang Valley, the culture adopted by the schools would differ.

The subjects were selected based on their qualifications. Teachers who have been teaching for many years but lack a TESL background were not considered. This decision

may have excluded significant feedback from this group. Conversely, not all teachers trained to teach English have all the relevant skills in identifying students with reading problems. So, while all attempts were made to select subjects with care, there is always an element of subjectivity.

The subjectivity of the responses of subjects is a real limitation in any study including this one. Subjects may respond with extreme caution to items in the questionnaire as they want to portray a good picture of their practices in the classroom. They may hold back the reality and produce responses favourable to them as they want to look at themselves as efficient teachers. The teachers may have different criteria in identifying the problem readers.

Observation as a qualitative method would have permitted a naturalistic inquiry (Patton, 1990) which would have enhanced this study. However, it was not used for various reasons. The presence of an observer in the classroom may affect the situation in a way that it may distort the data collected (Fraenkel & Wallen, 1996). Subjects may reluctantly allow observation to be done because this may intrude into their classroom activities.

This would probably disrupt their normal class routine and therefore defeat the purpose of observation. Furthermore, it is only a focus on external behaviour and not what is in the teachers' minds. This method is time-consuming and it was not feasible to observe 30 teachers over a short period of time.