Chapter 4  Research Methodology

4.1 Introduction

In this chapter, the sampling procedures and the research methodologies used are discussed. The first section (4.2) describes the data collection instrument, which was a questionnaire. The advantages and disadvantages of the questionnaire are discussed, followed by a justification for selecting this particular approach from among possible alternatives. Secondly, an explanation is given of the procedures for designing, translating, validating, and piloting the research questionnaire in sections 4.3, 4.4, and 4.5. The last two sections, 4.6 and 4.7, are devoted to a discussion of sampling issues and statistical analysis techniques.

4.2 The Data Collection Instrument

Survey research has been the most common means by which researchers in any subject area collect data (Tull and Hawkins 1987). While this approach lacks the scientific thoroughness of laboratory experiments, the data obtained permit inferences to be made about associations and relationships among variables. In addition, the survey method allows the investigation of intangible phenomena that cannot be observed directly by the researcher (Bagozzi 1996). Three major survey research methods are commonly suggested in the literature: the questionnaire, the personal interview, and the telephone survey. Each has its own advantages and disadvantages, which have to be evaluated in order to suit the context in which each method is employed.

In this research, a questionnaire was chosen as the data collection instrument because it offered a feasible solution to the problem of distance between subjects and researcher. Beside, the questionnaire is self-administering, and easy to classify and analyse. (See Appendices A1-A5, Questionnaire).

4.3 The Questionnaire Design

Developing and designing the questionnaire was one of the major tasks of this research. The process is usually based on learning from experience. Bagozzi (1996) states that, in the process of designing the questionnaire there is no substitute for experience based on trial and error. Consequently, the design of the questionnaire went through two stages in order to ensure its capability to collect the relevant data needed to conduct this study. First, the questionnaire was reviewed by two staff from the school of Education in the University of Leeds. Based on their suggestions and recommendations the questionnaire was amended. Some questions
were added, and others that were not clear or led to misunderstanding were modified.

Second, the questionnaire was translated into the Arabic language because, given the students’ current level of English, they would lack the skills required to answer a questionnaire accurately (see Appendices B1-B5, Arabic version of the questionnaire). The original form of the questionnaire was translated into the Arabic language by the researcher. Then, the Arabic version and the English version were reviewed by an interpreter to compare between them in order to assess the translation. Another reason for translating the questionnaire is that there were theoretical and methodological measures taken into account to ensure the validity and reliability of what is called “people data” or cultural differences (Dant and Barnes 1988). The effect of cultural differences is caused by the fact that concepts are developed in a culture different from the culture in which people will provide data. Hence, after the translation of the questionnaire, the Arabic version was reviewed by two English teachers at Al-Abna’a secondary school, Riyadh, Saudi Arabia.

The questionnaire was developed to provide four types of data:

1- Biographical data (age, place of birth), and the time spent living in Riyadh for those born anywhere else; also, information about the students’ actual use of the language outside the classroom. These questions were intended to give a brief profile of the students, to ensure accurate grouping of the questionnaires, and to see if students’ perceptions are affected by variables such as the actual use of language, or living in Riyadh.

2- There were eight questions in “Part Two”. These questions focused on what the students perceived as their reasons for studying English. Questions 5 to 11 of the questionnaire asked about their needs of English now and in the future. Each item stated a possible reason for needing English. Students were asked to indicate the salience of each reason for them by ticking one of three choices: very important, fairly important, not at all important. If the respondent ticked very important in response to any question, he was asked to specify which skills are most needed to achieve success for that reason. Instructions on the questionnaire stated that a maximum of two skills could be chosen (see Appendices A2-A3, Part two of the questionnaire). Question 12 was an open question to give the respondents opportunity to express their own reasons if different from the seven mentioned in items 5-11; also the respondents were asked to specify the most needed skills to achieve success for that reason. The instructions were similar to the previous one. The rationale for questions 5 to 12 was to find out how many of the respondents were able to express a fairly immediate need for English use, immediate perception of the future needs, and what these needs might be.

3- There were five questions in “Part Three”. These questions focused on the students’ perception of their
textbooks (EFSA). Question 13 of the questionnaire asked about respondents’ overall perceptions of the textbooks. Students were asked to tick one of four choices to indicate how helpful the textbooks are in improving their English. Question 14 asked about the helpfulness of the textbooks in developing the students’ abilities in each area of the language covered in them. Students were asked to tick one out of four choices. Question 15 and Question 16 of the questionnaire asked about how closely the situations presented in the textbooks (EFSA) correspond to the language which the students meet outside the classroom, and which units of the textbooks best achieve that. In Question 15, students were asked to choose the two units that they think best provide them with the language they need outside the classroom. In Question 16, students were asked about the other units and how closely they meet the students’ needs. Question 17 asked the students to rank in order of the actual amount of time spent on each skill (with “1” for the “most time” and “6” for the “least time”) the activities in the following list: Grammar, Listening, Reading, Speaking, Vocabulary, Writing. These language elements are referred in the questionnaire as well as in the whole study as English skills.

The rationale for Questions 13 to 17 was to find out how well the textbooks meet the students’ needs. The questions asked the students about how well they perceived the textbooks overall and detailed questions about the situations presented and the skills covered in them (see appendices A4-A5, Part three of the questionnaire).

1- There were two questions in “Part Four”. These questions asked about whether the textbooks need to be changed or not, in the students’ opinion and, if so, how the students think the textbooks (EFSA) might be changed to meet their needs better. In Question 18, students were asked to tick “Yes” or “No” for the question: “Do you think that EFSA would benefit from being changed?” If the respondent ticked YES to the question, he was asked to answer the supplementary questions about which skills should be focused on in the change, and which situational theme should be added to make the textbooks more realistic and useful. In Question 19, students were asked to give any other suggestions they thought should be taken into consideration in the change (see appendix A5, Part four of the questionnaire). The rationale for Part Four of the questionnaire was to find out whether the students would be able to express their need and to participate effectively in the textbook development process.

4.4 Validity Analysis

Validity analysis is necessary for any social research. The objective of validity is to ensure that the scale (each item or question of the questionnaire) measures what it is supposed to measure. Therefore, a scale is valid to the extent that measures what it is intended to measure. In the literature, there are many types of validity
analysis such as content validity, construct validity, and criterion validity. In this study content validity of the construct (composing, wording) measurements (i.e.: of questionnaire items) was of concern from early stage of questionnaire development. As suggested by Bagozzi (1996) three approaches can be used to obtain content validity. Firstly, it can be approached by carefully defining what is to be measured. Secondly, a thorough literature review can be conducted to identify possible items for inclusion in the scale. Thirdly, experts can be asked their opinions on whether an item should be included. Based on these suggestions, these stages were followed when the questionnaire was developed. Firstly, a review of the relevant literature, as well as a set of exploratory interviews with students and teachers, was conducted in Saudi Arabia, October 1998 (Alshumaimeri 1998). This resulted in the development of an initial list of items representing each of the study’s constructs. Secondly, this list of items was modified based on recommendations from two academics in Leeds University. Thirdly, the amended list of items was then piloted to ensure that the items were adequately worded. In the next section the result of the pilot study will be presented.

4.5 Pilot Study

A pilot study was undertaken to discover any possible problem related to the design of the questionnaire in terms of the degree of clarity and its validity. Two stages were conducted for the purpose of testing the validity, objectivity, and clarity of the questionnaire. Firstly, the questionnaire design was critiqued by other members of the researcher’s academic tutorial group, who offered valuable suggestions. Secondly, a random sample of 13 students was drawn from the sample to fill in the pilot version of the questionnaire. The basic aim was to evaluate the validity and objectivity of the study, and to assess the method and the procedure of collecting the questionnaire. All the questionnaires were returned. The pilot results raised no major questions and the respondents did not have any difficulty in understanding and answering the questions. Responses to the pilot yielded several suggestions for improving the questionnaire. As a result, changes were made to the questionnaire, such as simplifying the rubrics of part two, adding more choices to it, and adding new items in both parts two and three of the questionnaire.

4.6 Sampling Issues

Sampling is an important component of most educational research projects. The significance of sampling comes from the fact that the precision of conducting the sampling procedures will determine the extent to which the research findings are generalisable. Sampling refers to the selection of a subset of elements from a large group of objects, for the purpose of being able to draw general conclusion about the entire population.
The discussion of sampling issues will cover two main issues: the population of the study, and sample size.

To the best of the researcher’s knowledge there is no single systematic research on needs assessments for English for the students of all general education stages in Saudi Arabia. At the same time this was an encouraging motivation to the researcher to investigate the applicability of western literature, discussed in this research, in a developing country such as Saudi Arabia. Another reason for choosing Saudi Arabia is that the researcher is a Saudi; therefore, he would be more familiar with issues relating to the context of the study.

The sample of this study is students of the first year secondary at AlAbna’a secondary school in Riyadh. They are 125 students and all of them were included in the sample. AlAbna’a Secondary school is a subsidiary school, supervised by the Department of Education and Culture at MOD. The school follows completely the national curriculum, and it is classed as a state school, but it has its own inspectorate section that follows directions from the General Inspectorate Department at the Ministry of Education. The students of the school are the sons of the Ministry staff who live in the Ministry campus nearby. The students’ descent or ancestry varies as they represent all parts of the country.

One reason for choosing this school is that the students, as mentioned above, are believed to fairly represent all Saudi citizens. Another reason for the limitation of the study to AlAbna’a school was to facilitate data collection, and thereby increase the response rate. The data collection necessitated making telephone calls to organise the collections. Also, the questionnaires were collected by hand. Therefore, it is not feasible to include many schools in the sample.

The survey was conducted between April and June 1999. English teachers of Al Abna’a school participated in the data collection by distributing the questionnaire personally to the students in the regular English lesson. Most students were enthusiastic to participate in this study. Therefore, a satisfactory number of questionnaires were found to be complete and usable.

4.7 Statistical Analysis Technique

A number of criteria are proposed by Tabachnick and Fidell (1989) to select an appropriate statistical technique, two of which are the appropriateness of the technique to the research question, and the characteristics of data. Accordingly, two statistical techniques were used in the analysis based on their relevance to the research questions. They were frequency analysis and cross-tabulation analysis.

Frequency analysis produces a table of frequency counts and percentages for the value of an individual variable. It was used in this research to provide descriptive information of the data such as frequency, and distribution of the responses, and to summarise the responses to each question. The frequencies of various variables in
this research have been tabulated.

The second statistical technique used was cross-tabulation. Cross-tabulation allows researchers to see whether or not there is a relationship between two variables. To say that there is a relationship between two variables means that the distribution of values on one of the variables is in some way linked to the distribution of values on the second variable (Robson, 1997). The cross-tabulation analysis will fairly help to answer the research questions.

**4.8 Conclusion**

This chapter focused on the research design and methodology used to accomplish the study objectives. Firstly, the structure of the research methods employed in this study was discussed, and the considerations that were taken into account in adopting the research methodology were presented. Secondly, detailed descriptions of the population of the study, data collection instrument, and the main survey procedures were given. Finally, the chapter ended by presenting the statistical analysis techniques used in this study. An analysis and interpretation of the empirical data collected through these methods will be presented in the next chapter.