CHAPTER THREE

RESEARCH METHODS

3.0 Introduction

As stated before that the aim of this study is to assess and investigate the English language needs of the students in the General Nursing Department, Faculty of Medical Sciences, Hodeidah University, Yemen. Chapter 2 in this study discussed some theoretical issues related to ESP such as register approach, discourse approach, the concept of language needs analysis and the different approaches to the identification of students' language needs. It also discussed some studies based on the concept of needs analysis.

This chapter identifies the context of the study, gives a description of the two methods, refers to the sources of data collection and identifies the procedures of how data are going to be processed.

3.1 Context

This study was conducted in the academic year 2007-2008. It was done to investigate the English language needs of the students of FMS and study the present situation of teaching ESP courses in the same Faculty, Hodeidah University, Yemen.

The investigation of this study involved students studying at the four levels (I-II-III & IV), graduates of Medical Sciences Faculty, General Nursing Department, subject teachers and ESP teachers who are teaching in the Faculty. The total number of participants who were included in the study is 295, (219 students, 30 graduates, 43 subject teachers, and 3 ESP teachers).
3.2. Kind of Data to be Obtained

It seems important that before starting the discussion of the methods of data collection, it is worth mentioning the data that was aimed at. As stated in the research questions, the main aim is on the language needs of the students and the graduates. In this study the researcher makes use of the different approaches discussed in chapter 2 and the students’ needs were sought under three different aspects.

The first aspect dealt with needs on the ‘target situation’ as adopted by Munby (1978), Hutchinson and Waters (1987). Various elements of the target situation in which the students/graduates would be using the language were identified.

First, it seemed important to know who the learners are and their level of study. The focus on level of study is necessary especially that the research questions ask about the preference in needs in the different levels of study. This information of level of study would help in prioritizing needs in course design. For example, the needs of the 1st year students will come before the 2nd year and the 3rd year students.

It also seemed reasonable to know or to have an idea as to what language is needed for ‘target situation’- for academic studies or professional work. This would also throw some light on the kind of communicative activities (Munby’s communicative events) they need to carry out in English e.g. English is needed to listen to lectures, read textbooks, discuss medical cases, etc.

It would also be necessary to know where the language would be used i.e. the setting whether it is in the Faculty or in the hospital. With whom it would be used i.e. if the language would be used with doctors, patients, lecturers, colleagues or nurses. Besides that it would be thoughtful to consider the students and graduates’ future
needs. At this stage and through the ESP courses it is considered necessary to make the students aware of their needs.

Such information would not only give an idea of the communicative activities that the students have to carry out in their studies but it would also throw some light on the skills needed: listening, speaking, reading and writing. In addition, it would elicit something on the instrumentality i.e. if the medium of language would be spoken or written, if the channel would be indirect like tape, radio or direct like lecture. All this will help in giving the right weight to different language skills when adjusting, evaluating or designing the English programme.

The second aspect of the students' needs covered present situation needs analysis which refer to the kind of difficulties the learners have in language use i.e. during their academic studies or in their professional commitments. In other words, Present situation analysis, which is also called Deficiency Analysis, deals with the gap between what the target trainees know at present and what they are required to know or to do at the end of the programme (Hutchinson and Waters, 1987). Knowing the students' difficulties in the language would give some practical solutions to remedy such 'lacks' and overcome the linguistic problems.

The third aspect dealt with the factors that inevitably influence the learning/teaching situation( the learning needs). Therefore, the constraints that affect the teaching/learning situation are to be taken into consideration, 'and should occur in conjunction with the needs analysis', (Robinson 1991, p. 42 ). This study would consider those constraints concerned with the students' attitudes, wants and expectations towards language, the status of English in the Faculty i.e. the Faculty members' attitude towards English in terms of importance in the students' academic
studies. It needs to be mentioned here that this attitude is considered as an information relevant to the cognitive and affective theories of learning and therefore need to be considered in the initial needs analysis (Hutchinson and Waters, 1987). Availability of resources (such as video, tape-recorder, etc.), which could also be a main constraint in fulfilling the students’ needs, had to be considered.

3.3 Participant Categories

Four populations were the sources of data for this study. These were:

(a) Students

(b) Graduates

(c) Subject teachers and

(d) ESP teachers

These four different sources of information made the data gathered more authentic, valid and relevant to the objectives of the study. This will make it possible to have as much and varied information as possible. In the sub-sections that follow, the participant categories will be discussed in detail.

3.3.1 Students Category

The target students’ population is students of General Nursing Department, Faculty of Medical Sciences, Hodeidah University, Yemen. The system in this Faculty provides four years of instruction that qualifies the students to graduate with a B.A degree in the specialization mentioned above. The first year is more general in terms of the subjects they study. That is, they study some specialist subjects besides some requirement subjects such as Chemistry, Physics, English, etc.
The intention to include a sample of students from FMS, General Nursing Department is justified by the fact that these students are the core of the process of learning and teaching. All kinds of educational planning and curriculum reforms are meant for the benefit of students. These students will be a good source of data for this study for these reasons. First, they are the first and foremost party who are affected by any change in the English syllabus. Second, they will provide information about their problems and difficulties in learning the language. This information will also be of help for curriculum designer and for suggesting a change in or a replacement of the current English courses. Third, they will express their needs, wants, wishes and desires, which will be the base for any English course.

On the whole, learner involvement in the process of curriculum development is an essential step in learner-centered approach to course design. In fact, any needs analysis model has to incorporate information about the learners’ perception of what they want to learn and how they want to learn it. This has recently become an important dimension added to needs analysis approach, which is distinguished from earlier more mechanic approaches (Nunan, 1990).

3.3.2 Graduates as Nursing Doctors in the Field

Nursing doctors, who graduated from Hodeidah University, represent a second informant category as a source of data for this study. They were contacted for these reasons. First, they are ex-students of FMS and the people in the field. Their views will be of great value, particularly those that are related to the English courses that these people had studied at the Faculty. Second, information given by the people in their workplace will yield information that could be used to develop authentic and relevant Medical English course components.
3.3.3 Subject and ESP Teachers Category

Subject teachers who teach in FMS represent a third informant category and ESP teachers represent the fourth informant category as sources of data for the present research. The teachers of English in this Faculty (GND) as well as the subject teachers are helpful to this research because they are always in touch with the students. They are fully aware of the students' difficulties, lacks, wants and learning needs. They also know the content of the course (whether this course is an English course or medical course); what is lacking and what actions should be taken. They can also help in the evaluation of the learning/teaching situation in their context. Feedback given by the subject and ESP teachers may help, the researcher believes, in developing and improving ESP course.

3.4 Data Collection Methods

Since the data to be collected is that of students' language needs, the appropriate data collection procedures were next to be decided on. In the studies discussed on needs analysis have introduced several examples of data collection methods such as interviews, questionnaires, observations, tests, group discussion, etc. In this present research the researcher made use of interviews and questionnaires. In this study the kind of data that was obtained in the interviews was qualitative data whereas that obtained in the questionnaires was quantitative data.

**Qualitative data** is the data that is process-oriented and that includes the understanding of human and social behavior (responses) from 'insiders' perspective' as it is lived by the informant in a particular social setting (e.g. Faculty or hospital). Therefore, interpretations of human actions, answers, etc. are found in this kind of
data if the data has constructed a ‘reading’ or portrayal of what is being studied. Qualitative data contains sample of ‘the natural language of the participants’ (Nunan, 1992, as cited in Bin-Tyeh, 1996, p.25).

Quantitative data is outcome-oriented which includes controlled measurement. It also includes beliefs and studies relationship of one set of beliefs to another from the students’, teachers’ and graduates’ perspective, (Nunan, 1992, as cited in Bin-Tyeh, 1996, p. 25).

3.5 The Interviews

The researcher made use of ethnographic interviews. Spradley (1979, as cited in Bin-Tyeh, 1996, p.25) points out that ethnographic interviews are “a series of friendly conversation into which the researcher slowly introduces new elements to assist informants to respond as informants”. This kind of interviews also give the informants a degree of power and control over the course of the interview and second the interviewer is given a great deal of flexibility. The advantage of using this kind of interviews is that the informants would respond freely which would help in ‘portraying’ their language needs without the interviewer manipulating this. This means that needs would be explored from the ‘insider perspective’.

3.5.1 The Interview Questions

Two versions of interview were used, one for students and graduates and one for subject teachers. The questions of the interview had been adopted in Bin-Tyeh’s Ethnographic Interview (1996) with some modifications. The first question of the interview is the broadest possible question which explores the situation and the study.
The broadest question in this study is ‘Do you use English?’ If yes, Q 2, when do you use it? (Refer to appendix 1 & 2).

3.5.2 Discussion of Interview Questions

The two interviews of students/graduates and subject teachers consisted of six questions each. The questions aimed at identifying and giving a primary picture of the language needs of the students in the Faculty of Medical Sciences, General Nursing Department. As said in (3.5.1), the first question is the broadest question and all the informants responded positively to this question, indicating that English is used in the academic study.

The next two questions (2-3) were meant to elicit information on the extent to which English is used e.g. when, where, with whom English is used, if there is any other situation in which English is used. In fact, the questions (2-3) were developed to elicit the activities, situations in the students’ academic studies and professional commitments in which English is used i.e. what English is needed for. Question 4 asks about the need to learn English. Question 5 asks for the future needs i.e. for what purposes, fields and domain English would be needed for. The last question asks about the problems and difficulties faced by the informants (students) in their use of English.

3.5.3 The Sample of Interview Informants

This study had been conducted in the General Nursing Department at the Faculty of Medical Sciences, Hodeidah University, Yemen in the academic 2007-2008. Since this study is concerned with the language needs of the students of the
General Nursing Department, the target population should belong to the department concerned.

3.5.3.1 Criteria of Informants' Selection

The target population should be presented by

1. All the students who study in the General Nursing Department at all levels of study. These students are expected to reflect their language needs during their academic studies.

2. All graduates who graduated from this particular department in the Faculty of Medical Sciences, Hoeidah University, Yemen. It is expected that these graduates would not only be aware of the language needs during their academic studies but also would reflect the projected professional language needs which can or need to be fulfilled during the academic studies.

3. All subject teachers who are teaching in this department and who are also supposed to have been aware of the students language needs.

Therefore the sample of subjects to participate in the interview of this study was selected from this target population mentioned in (3.5.3.1). The sample comprised 60 informants- 40 students from a population of 179 students (10 students from each level), 10 subject teachers from a population of 33 teachers teaching in the Faculty and 10 graduates (working doctors) from all those who graduated from the Faculty.
Table 1: The number of informants for the interviews

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of students</th>
<th>No. of informants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1\textsuperscript{st} year</td>
<td>320</td>
<td>10</td>
</tr>
<tr>
<td>2\textsuperscript{nd} year</td>
<td>87</td>
<td>10</td>
</tr>
<tr>
<td>3\textsuperscript{rd} year</td>
<td>102</td>
<td>10</td>
</tr>
<tr>
<td>4\textsuperscript{th} year</td>
<td>91</td>
<td>10</td>
</tr>
<tr>
<td>Subject Teachers</td>
<td>33</td>
<td>10</td>
</tr>
<tr>
<td>Graduates</td>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

The selection of the students' sample depended on some factors such as their willingness to participate in the interview, their attendance in the lecture hall, their availability in the library, Faculty compound, hospital compounds and etc.

The subject teachers' sample comprised teachers lecturing in the General Nursing Department at the Faculty concerned. The teachers selected were from each department or subject unit e.g. biochemistry, Fundamental of Nursing, Histology, Anatomy etc. This selection also based on the teachers' availability at the Faculty or hospital. Some of these teachers have great experiences in their field and some are heads of departments who had been teaching in the Faculty for long periods and who were expected to be more aware of the students' language needs and difficulties. With regard to the graduates' sample, it was made up of 10 graduates selected from different hospital and private clinics. Those, who were willing to participate in the interview, comprised graduates who graduated from the Faculty from 2002-2006.
3.5.4 Administration of Interview

The following key elements were taken into consideration during the implementation of the interviews:

1. Before administering the interviews the researcher explained to the participants the nature of the study and the purpose of the interview, for instance, what the research is about, why it was important, how the informant could help the researcher, etc.

2. The interviewees were told that their talk would be recorded or audio-taped. All permitted the researcher to record their talk except two who had a bad experience about audio-taping. In that case the researcher had to take down notes of the contents of the interview. It is worth mentioning that about 45% of the interviews was conducted in English.

To draw the interviewees' attention and to involve them into discussion, an opening question (the broadest question as said in 3.5.1) was used at the beginning of the interview. This type of question provided hot flow of responses. The question was “Do you use English ...?” With the subjects’ response to this question, the base for the flow of discussion was ready, and the researcher threw questions at natural points, keeping in mind the list of questions to be covered during the interviews.

3.6 The Questionnaires

The main and major research tool used in this present study was questionnaires. Four questionnaires covering different areas of English language needs in the General Nursing Department were used. These questionnaires were for students, graduates, subject teachers and ESP teachers. The statements and questions
of these questionnaires were selected and adopted with some modifications from some previous studies, such as Bin-Tyeh (1996), Homadi (2003) and Shuja' (2004). The items of the questionnaires represented students' needs in the form of communicative activities. The items were followed by Likert scale where the respondent responds to the items by indicating the importance of each item whether it is 'somewhat important', 'important' or 'very important'. A covering letter, which explained the purpose of the study and invited the informants to respond and cooperate with the researcher, introduces each of the questionnaires.

3.6.1 Description of the Questionnaires

This section provides a detailed description of the questionnaires used in this study. As mentioned in (3.6), four questionnaires were used for the four groups of informants. We will start with the students' questionnaire.

3.6.1.1 The Students' Questionnaire

This questionnaire was composed of five sections. Section I covered some personal information of students. The first 5 items elicit information on sex (male/female), level of study, extra courses in English, language used in lectures and the language of the textbooks. There were male informants and female informants participated in responding to the questionnaire. The number of male or female students participated from each level was not necessary to be equal because this study does not consider or examine the "gender" variable. Item 6 in section I was meant to elicit the problems and difficulties faced by the students in their academic studies (see appendix 3).
Section II of the students’ questionnaire was made up of 6 questions. Questions 7 and 8 ask the students about the importance of the main English Language skills in their academic and future career. Here the students have to put a tick to indicate the degree of importance of each skill. Questions 9-12 contain 27 items in form of communicative activities (appendix 3). These communicative activities covered the different sub-skills of the four main skills in the English language- listening, speaking, reading and writing. These communicative activities represent students’ needs. In the interviews, most informants mentioned some of these communicative activities.

Section III of the students’ questionnaire contained seven items. This section was meant to elicit students’ views regarding the current English programme. The first four items are about their views on the kind of language they would prefer (general or specific language) and the last three items on their future needs. These seven items in section III are intended to reflect ‘learners’ wants’. ‘Wants’ here means what learners feel they want (Hutchinson and Waters 1987).

Section IV of the students’ questionnaire consisted of nine questions (15 items). This section was meant to determine the degree of suitability and appropriateness of the teaching materials currently taught at the Faculty of Medical Sciences, to the needs of students concerned. Q1, for example, asks how useful these two ESP courses were in (i) developing each language skill and (ii) presenting and explaining grammatical points. The questions in this section would also help to see if the materials could satisfy and harmonize with what the learners perceived their needs to be.
Section V contained three questions. The first two questions look at the different types of interaction patterns and class activities that the students used to do in ESP classes. The last question asks about the different resources (teaching and learning aids, supplementary materials, etc.) that were used during the teaching of these courses.

3.61.2 The Subject Teachers’ Questionnaire

This questionnaire consisted of four sections. Section I of the subject teachers’ questionnaire consisted of five items. These items elicit biographical data, specialization, medium of instruction and the language of the textbooks. The two items, the medium of instruction (4) and the language of the textbooks (5) run parallel with the students’ items 4 and 5 of section I of their questionnaire.

Section II contained 4 four questions. The first two questions ask the teachers about the importance of each English language skill in the students’ academic studies and their future career. The last two questions of section II ask about the importance of teaching of General and Specific English in the students’ academic studies and future career. (See appendix IV)

Section III consisted of 4 questions (27 items) and section IV contained 7 items. The 34 items in these two sections mentioned above run parallel with the students’ items in section II (Questions 9-12) and section III. The justification for including the same items in the subject teachers’ questionnaire was to check what the learners’ language needs are, as perceived by these teachers and to compare the degree of importance.
3.6.1.3 The Graduates' Questionnaire

There are three sections in this version of questionnaire (see appendix V). The first section is about personal or background information. The items 3-6 in the graduates’ questionnaire run parallel with the same items in section I of the students’ questionnaire since these items can be responded by the two groups. Moreover, the items in section III of the graduates’ questionnaire run parallel with the students’ and teachers’ items in sections III and IV of their questionnaires respectively (see the appendices III, IV and V). But section II of the graduates’ questionnaire is based on communicative activities which are said to be carried out in the target language in their professional commitments. These will reflect the students’ projected professional needs which can only be implemented during their academic studies.

3.6.1.4 The ESP Teachers’ Questionnaire

The fourth questionnaire was given to ESP teachers who taught and those who were still teaching these courses in the FMS. The ESP teachers’ questionnaire was different from the subject teachers and graduates’ questionnaires but shared some items with the students’ version. In addition to focusing on the language needs of the students, more emphasis was also given to evaluation of teaching methods practiced and teaching materials used. The items in section IV of the students’ questionnaire correspond with the same items in section IV of the ESP teachers’ version. In addition, the items in section V of the students’ questionnaire correspond with the items in section II of the ESP teachers’ version.

The ESP teachers’ version contained six sections. Each section contains some questions in form of items. (See appendix VI). Section I contains four items about
background information such as name, qualification, academic title, and the number of years teaching ESP/EGP.

Section II was about methods of teaching and classroom activities and it contained 3 questions (Q5-7) (16 items). (Q5) asks teachers about the frequency of putting their students into different ‘students groupings’. (Q6) asks teachers to check which of the classroom activities (listed in this item) they asked their students to do in English classes. And (Q7) asks teachers to check the different resources and teaching and learning aids they used in their classes.

Section III was about medium of instruction and it consisted of two questions (8-9). (Q8) was meant to elicit the medium of instruction used most of the time in teaching. (Q9) directly asked if Arabic was used in teaching. In case of affirmative response, teachers were asked to tick the situations and cases in which Arabic was used.

Section IV, which was about material evaluation, included 9 questions (Q10-18) (15 items). Q10, for example, asks about the usefulness of the two ESP courses currently taught in helping students to develop their skills and in introducing grammar points (items a-e). This section was meant to determine the degree of the suitability of the current teaching materials taught at the Faculty of Medical Sciences, General Nursing Department, to the needs of students investigated earlier.

Section V was devoted to the evaluation system followed in the Faculty concerned. This section had two main parts (A and B). Part (A) (Q19 (7) items) was about the present evaluation system. It asks about the language skills and areas that this type of test tested. Part (B) was titled ‘Suggested Evaluation System’. It contained
two questions. In (Q20) asks teachers to choose one of the given options about how frequently students should be assessed and by which means. In (Q21) respondents are asked about the language skills and areas that should be included in the test in this particular context. These two parts would indicate how often students should be evaluated, in what areas, and the type of assessment.

The last section of ESP teachers' questionnaire was meant to elicit the difficulties that teachers faced and had been facing in the teaching of English in this context. This section had ten different difficulties and problems which ESP teachers might probably face in their teaching.

3.6.2 Subjects

The subjects for the sample of the questionnaires were chosen randomly. 30% of the students in each level was selected. The selection of the subjects for the questionnaires followed the same procedures/criteria used for the interviews. The only distinction was that the questionnaires covered a large sample. The table below shows this.

Table2: The number of informants for the questionnaires

<table>
<thead>
<tr>
<th></th>
<th>Level</th>
<th>No. of students 2007-2008</th>
<th>No. of subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level One</td>
<td></td>
<td>320</td>
<td>96</td>
</tr>
<tr>
<td>Level Two</td>
<td></td>
<td>87</td>
<td>26</td>
</tr>
<tr>
<td>Level Three</td>
<td></td>
<td>102</td>
<td>30</td>
</tr>
<tr>
<td>Level Four</td>
<td></td>
<td>91</td>
<td>27</td>
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<tr>
<td>Subject Teachers</td>
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<tr>
<td>Graduates</td>
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<td></td>
<td>20</td>
</tr>
<tr>
<td>ESP Teachers</td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
3.6.3 The Administration of the Questionnaire.

Before starting the administration of the questionnaire among informants, the researcher contacted the vice-dean of the Faculty of Medical Sciences and head of General Nursing Department for their permission to meet the students for the purpose of distributing the questionnaires. The vice-dean and the head of the department concerned whom the researcher approached were very cooperative in facilitating the researcher’s job and asking other faculty members to assist him in fulfilling his task.

In order to avoid low responses rate, the researcher, with the help of the professors (subject teaches) entered the classes during lectures. The researcher had the chance of having a face-to-face talk with the subjects before distributing the questionnaires. Before starting filling out the questionnaires the purpose of the study and the procedure to be followed were explained. Every attempt was made to make sure that the students understood the questions and were responding candidly. The respondents were given enough time to fill out the questionnaire. The questionnaires were to be answered and returned in the presence of the researcher so as to avoid low rate return.

The subject teachers (doctors), ESP teachers and graduates were allowed to take the questionnaires home since they were too busy in the Faculty and in the hospital. It took more than 20 days to get the questionnaires back.

3.7 Statistical Procedures

Frequencies, percentages, and means were calculated for all questions in the questionnaires. To assess the degree of importance of both GE & ESP and the main skills and sub-skills, material evaluation, and classroom interaction patterns, numerical values were assigned to all responses for all these aspects. The mean was calculated in the way below:
1 to less than 1.44 = 'somewhat important', 'not at all', 'never', 'not useful', etc.
1.45 to less than 2.44 = 'important', 'sometimes', 'to some extent', 'easy', etc.
2.45 to less than 3 = 'very important', 'always', 'to a great extent', etc.

The data collected in the questionnaires was then transferred onto four separate coding sheets. They were then transferred to the computer database. The Statistical Package for Social Sciences (SPSS) was used to analyse the data according to the research questions. Therefore, the statistical procedure, one way analysis of variance (ANOVA), had to be carried out for the Likert type items to find out the different language needs of the students in the different levels of study.