DEVELOPING AN ESP CURRICULUM FOR STUDENTS OF HEALTH SCIENCES THROUGH NEEDS ANALYSIS AND COURSE EVALUATION IN SAUDI ARABIA

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ABSTRACT

The central objective of this study is to create a proposal for the development of the present English for Specific Purposes (ESP) course at Health Sciences Colleges (HSCs) in Saudi Arabia on the basis of a needs analysis and a course evaluation. It attempts to evaluate the ESP course and to investigate the needs of two groups of stakeholders, viz. ESP students and health professionals, as perceived in the first case by the students themselves, by their language teachers and by the course administrators and in the second case by graduates of the ESP course now working in health professions and by other medical staff. A mixed-methods approach was adopted: 246 questionnaires were administered to current students, graduates and language teachers; semi-structured interviews were conducted with 6 students, 7 graduates, 6 language teachers, 5 course administrators, 5 hospital managers and 11 English-speaking health professionals; and document analysis was employed as an ancillary research method. The triangulation of data collection tools, sources and places helps to increase the validity and reliability of the findings. The data collected from the documents and interview transcriptions were analyzed qualitatively by hand, while those collected from the questionnaires were analyzed quantitatively using the SPSS program. Findings of the language needs analysis show that all four of the language skills were important, both for the students' academic studies and for their target careers. Generally speaking, the evaluation results indicate that while the ESP course was helpful to some extent, it had some limitations including its curriculum, the teaching-learning materials used and the assessment procedures adopted. Accordingly, this study proposes a new ESP curriculum based on the stakeholders' needs. The study also recommends the provision of teacher training and the recruitment of additional ESP teaching staff as first steps towards the necessary improvements. It is also concluded that the collection of multiple types of data from various sources and places is necessary to overcome many of the problems commonly associated with needs analysis and evaluation studies.

ACKNOWLEDGEMENTS

DEDICATION

TO MY BELOVED GRANDMOTHER WHO PASSED AWAY JUST AS I STARTED THIS RESEARCH; TO MY BELOVED PARENTS; AND TO MY BELOVED SISTER ZEINAB.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

CLT	Communicative Language Teaching
CNP	Communication Needs Processor
EAC	English for an Academic Conference
EAP	English for Academic Purposes
EFL	English as a Foreign Language
ELT	English Language Teaching
EM-EP	English for Medicine for Educational Purposes
EMP	English for Medical Purposes
EM-OP	English for Medicine for Occupational Purposes
EOP	English for Occupational Purposes
EPP	English for Professional Purposes
ES	Effect Size
ESP	English for Specific Purposes
EST	English for Science and Technology
EVP	English for Vocational Purposes
FL	Foreign Language
F-N	Functional-Notional
GDHCI	General Directorate of Health Colleges and Institutes
GE	General English
HSC	Health Sciences College (in Saudi Arabia)
KSA	Kingdom of Saudi Arabia
K-W	Kruskal-Wallis (test)
L1	First Language
LSA	Learning Situation Analysis
ME	Medical English
MEFS	Medical English Fluency Skills
MELS	Medical English Literacy Skills
NA	Needs Analysis
PSA	Present Situation Analysis
SD	Standard Deviation
SL	Second Language
SPSS	Statistical Package for the Social Sciences

TEFL   Teaching English as a Foreign Language

TESOL   Teaching English to Speakers of Other Languages

TSA   Target Situation Analysis

CHAPTER ONE: INTRODUCTION AND BACKGROUND

This introductory chapter provides a review of the thesis. It is arranged in seven main sections. First, the background to the study is briefly discussed, followed by an overview of the study setting and a statement of the problem. The fourth section describes the purpose of the study and the next presents the research questions. The importance of the study is highlighted in the sixth section and the chapter ends by setting out the organization of the thesis.

1.1. BACKGROUND TO THE STUDY

English is the dominant language in certain scientific fields (Graddol, 1997; Crystal, 2003). For example, it is accepted as the international spoken and written language of medicine, according to Maher (1986a: 216), who observes that 'the dissemination and exchange of medical information' in English has become not only an international but also an intranational phenomenon. Therefore, in some non-English speaking countries information is frequently published in English for local consumption. This means that English is used in a particular community to serve a specific purpose, in a neutral place beyond its native cultural territory. This, in turn, implies that English has a vital role to play in that particular community, as in the case of the medical professions and the healthcare field. This vital role obliges those who want to be healthcare professionals and are non-native speakers of English to study in order to acquire at least a solid command of both written and spoken English. This results in a crucial demand to learn and teach English in the medical field, not only for general purposes but also, more importantly, for specific ones.

The increasing demand for both learning and teaching English in the medical and healthcare fields is an example of English for Specific Purposes (ESP), which emerged from within the overall field of English Language Teaching (ELT) family in the early 1960s (Orr, 2001: 207)[1] and continues to be an important and dynamic area

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[1] Although 'much in the history of ESP remains unknown' (Orr, 2008: 1) and it is difficult to establish a specific date for the emergence of ESP (Garcia Mayo, 2000: 21), Hutchinson and Waters (1987: 6) observe that three key factors led to the emergence of ESP: worldwide demand, the revolution in linguistics and a focus on the learner.

of specialization within ELT (Flowerdew, 1990: 326). The need for such courses (e.g. English for Science and Technology and English for Business) has been and still is a major concern both in English-speaking countries and elsewhere (Salager-Meyer, 2000: 11). The subspecialisation of ESP which is the focus of the current study is called English for Medical Purposes (EMP) (Maher, 1986a; Dudley-Evans and St John, 1998; Master, 2005; Puentes, 2008). EMP has become an important component of the curriculum at many health sciences and medical colleges, with the goal of addressing learners' specific needs and thus helping them to be proficient and successful in English, both in their academic studies and in the professional workplace. EMP is explained in detail in Chapter Two (section 2.2.1).

One set of factors which led to the emergence of ESP were the developments in educational psychology (e.g. Maslow, 1968; Rogers, 1969) which meant that 'learners were seen to have different needs and interests, which would have an important influence on their motivation to learn and therefore on the effectiveness of their learning' (Hutchinson and Waters, 1987: 8). Influenced by these developments, many English language teachers began to pay attention to their learners' needs and many ESP courses were designed to better meet these needs (Hutchinson and Waters, 1987). That is, ESP was seen as 'responding to the new education requirement: to study the learner, to analyze his/her needs' (Biria and Tahririan, 1994: 94). Richards (2001: 28) also asserts that the concern to make language courses more relevant to learners' needs led to the emergence of ESP. Basturkmen (2010: 17) explains that 'ESP courses set out to teach the language and communication skills that specific groups of language learners need or will need to function effectively in their disciplines of study, professions or workplaces'. This implies that learners' language needs in the highly specialized fields of science and technology, as in many other fields of business and industry, go beyond the standard format offered in general ELT courses 'and that certain, perhaps major, adjustments in orientation, methods and materials may be required to satisfy these needs' (Mackey and Parlmer, 1981: 29). The assumption is that these major adjustments would be made in ESP courses.

What makes ESP courses narrower in focus than general ELT courses is that 'they centre on analysis of learners' needs' (Basturkmen, 2010: 3). However, as Long (2005c: 62) observes, although English language course designers spend large

amounts of money in developing their curricula, they often neglect the process of needs analysis (NA), which is considered to be an important first step when planning any English language course. A number of scholars (e.g. Van Els et al., 1984; Berwick, 1989; Savignon, 1997; Feez, 1998; Brown, 2001; Flowerdew and Peacock, 2001b; Hamp-Lyons, 2001; Nunan and Lamb, 2001; Savage and Storer, 2001; Grabe, 2002; Turner, 2004; Long, 2005b; Tajino et al., 2005; Belcher, 2006; Balteiro, 2007; Galova, 2007b; Harmer, 2007; Master, 2007) emphasize the important role of NA in learning and teaching English as a foreign language (FL) or second language (SL) in general and in designing and developing ESP courses in particular. This is because:

> Needs analysis has had the beneficial effect of reminding teachers and syllabus designers that the final objective in language teaching is to enable the learner to communicate. Needs analysis has also helped to emphasise the range and variety of uses to which the language is put. Generally, the outcome has been a greater sensitivity to students' needs seen in terms of a profile consisting of a number of variable and interrelated features including stylistic appropriateness, level of attainment, receptive/productive abilities, medium (speech/writing), units of meaning and forms of English (Cunningsworth, 1983: 154).

Lepetit and Cichocki (2002: 384) also affirm that 'curriculum designers and planners must understand the students' perceptions of language, their needs in the area of FL learning'. Basturkmen (2010: 25) points out that NA 'plays a role in refining and evaluating ongoing ESP courses'. NA has been used successfully in Europe as a first step in both designing new course curricula and revising existing ones (Lepetit and Cichocki, 2002).

Needs change, or at least, perceptions of needs can change, new perceptions emerge as the course goes on and objectives may need to be modified (Robinson, 1991; West, 1994). Curriculum evaluation, as an integral part of course development (Fashola, 1989; White et al., 1991), could be an effective tool to help identify the extent to which needs are met. Richards (2001: 288) explains that 'evaluation may be carried out as part of the process of program development in order to find out what is working well, what is not, and what problems need to be addressed'. Dudley-Evans and St John (1998: 129) add that 'evaluation will also show weakness or features that were just not suitable for the particular groups of learners'. Rea-Dickins and Germaine (1992: 26) explain that 'this is known as formative evaluation. Such evaluations are

ongoing and monitor developments by identifying the strengths and weaknesses of all aspects of teaching and learning'.

This research utilizes these two important activities (NA and evaluation) in the process of curriculum development in order to address the question of whether the present ESP course at the Health Sciences Colleges (HSCs) in the Kingdom of Saudi Arabia (KSA) fulfil the needs and demands of the students for both present academic and future professional purposes. A central aim of this study is therefore to propose an ESP course curriculum which would be more effective and appropriate to the students' needs. Before the main research topic is explained in detail, the following section provides a brief description of English education in the KSA and the ESP course at the HSCs, to enable the reader to understand the research context.

1.2. OVERVIEW OF THE STUDY SETTING

In the KSA, English is the only FL taught in public schools, for students at grades 5 and 6 of the elementary stage (aged 10 to 12 years), the intermediate stage (13 to 15) and the secondary stage (16 to 18). In addition, English language is offered either as an optional subject or as a major at the higher education level, in universities and colleges. In many higher education colleges, English is used as the main medium of instruction. An example is that of the HSCs. Established in cities throughout the Kingdom, their major goal is to qualify and train graduates of general secondary schools and secondary health institutes to work in hospitals, local clinics and other medical facilities as healthcare assistants (e.g. nurses, dental assistants, pharmacists, radiology and lab technicians) (Ministry of Health, 2007: 44). The current study was undertaken in three of these HSCs.

The KSA, like many countries, has decided to teach its people health sciences through the medium of English in the higher education institutions (Gallagher, 1989; Alshehri, 2001). This decision can be justified by the fact that English is accepted as both an intranational and international language of science and medicine (Maher, 1986a; Phillipson, 1992; Belcher, 2006). Congreve (2004: 5) asserts that English is the most commonly used language in medicine in the KSA. He goes on to claim that Saudi Arabia uses English as an SL, but offers no explanation for this claim, which seems

unpersuasive because a second language is one which, while not the speaker's mother tongue, is usually used in the community/cultural context concerned, for instance as a medium of communication in government or education (Phillipson, 1992). Using English in such contexts in Saudi Arabia is relatively rare, with the exception of some workplace contexts such as hospitals, international companies and organizations that hire foreigners. Therefore, English can be generally regarded as an FL rather than an SL in Saudi Arabia.[1] That is, it often has no significant institutional or social role in the local Saudi community. However, it can be regarded as an SL, or perhaps a first language (L1), in a very few specific contexts, as in the case of doctor-nurse communication.

Both the absence of a significant role of English in most aspects of life and the teaching of English as an FL in Saudi Arabia have two important implications for the current study. First, in an FL context, like the one in which the study takes place, the degree of exposure to the language outside classroom settings is very much less than that of an SL context, implying that English language teaching and learning needs will be quite different in each context (Phillipson, 1992). Second, English does not have a prominent role at the elementary, intermediate and secondary education levels in Saudi Arabia, whereas it has gained a more prominent role in many higher education colleges, being the medium of instruction, as in the case of the HSCs. Accordingly, when students move on to college, it can be very difficult for them to understand and accept the new major role of English in the study of health sciences. This is likely to affect their English language learning needs and attitudes.

In summary, it could be said that English is generally used in the KSA for specific purposes, often academic and/or professional ones. The current study seeks to determine the English language needs of learners in one of these specific contexts, namely healthcare students and future professionals.

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[1] Following Kachru's (1985) framework of world English use, Rogerson-Revell (2007: 105) categorizes Saudi Arabia as belonging to the 'expending circle' countries which use English as a foreign language.

1.2.1. THE HSCs AND THE ESP COURSE

Before describing the ESP course, it is necessary to outline the history and status of the several existing HSCs for boys.[1] At the time of the study, they are independent of each other and are fully sponsored and controlled by the Ministry of Health in Saudi Arabia.[2] Within the Ministry, the General Directorate of Health Colleges and Institutes (GDHCI) was created to coordinate and supervise them. The specific aims of the HSCs are: (1) to qualify the graduates of secondary schools and secondary health institutes scientifically and technically to be competent in different healthcare professions and to keep pace with recent developments in the concepts, science and technology of healthcare, and (2) to meet the needs of healthcare services in increasing the size and quality of the current and future workforce (Johali, 2003: 69). The GDHCI imposes a number of conditions for the admission of students who apply to any HSC, which Johali (2003: 70) sets out as follows:

1. The applicant must be a Saudi;
2. The applicant must have the Secondary School Certificate (Natural or Applied Science mainstream), or the Secondary Health Institutes Certificate with a very good grade;
3. Graduates of secondary school must not be over 22 years old and those of secondary health institutes must not be over 30;
4. The applicant must be a recent graduate of secondary school or a two-year in-service healthcare professional for graduates of secondary health institutes;
5. The applicant must pass an interview (oral exam) and a medical test.

The HSCs were established in 1991 (Johali, 2003: 168). They all award an Associate University Degree of Science in a range of specialized fields: Nursing, Radiology, Dental Assistant, Pharmacy, Epidemiology Inspection, Medical Secretary, Nutrition and Laboratory. English is the medium of instruction in the HSCs. administration

The duration of study, as in all HSCs, is three years, followed by a clinical internship period of six months. These three years are divided into seven semesters of four months each. The first year is preparatory and consists of two semesters. The First

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[1] This study is concerned only with male students, since females are taught apart in different courses and under a different administration.
[2] It should be noted that the HSCs are now in the process of moving under the administration of the Ministry of Higher Education.

Year Programme is a unified core course. According to GDHCI (2007: 3), the general objectives of the programme are to:

1. Prepare the students to study health sciences;
2. Improve the students' English language and enable them to use it for study and in communication;
3. Build a solid scientific foundation for the students in the basic medical sciences;
4. Help students to adopt the appropriate attitude for healthcare professions.

About 120 students join the First Year Programme every year in each college. They are usually divided into four groups of about 23-29 students. As all 20 courses in the First Year Programme are obligatory, all students must take the EMP course over two semesters and must pass all 20 to be accepted into the second year. If a student has failed a course, he has to retake it and be re-examined. Table 1.1 below sets out the First Year Programme for the academic year 2007-2008.

Table 1.1: The First Year Programme

FIRST SEMESTER						SECOND SEMESTER					
	COURSE TITLE	HOURS					COURSE TITLE	HOURS			
		CREDIT		ACTUAL				CREDIT		ACTUAL	
		T*	P	T	P			T	P	T	P
1	Islamic Studies (1)	1	-	1	-	1	Islamic Studies (2)	1	-	1	-
2	Arabic Language (1)	1	-	1	-	2	Arabic Language (2)	1	-	1	-
3	Medical Terminology	1	-	1	-	3	Medical Terminology	1	-	1	-
4	Writing & Grammar	3	-	3	-	4	Writing & Grammar	3	-	3	-
5	Listening & Speaking	3	1	3	2	5	Listening & Speaking	3	1	3	2
6	Reading	3	-	3	-	6	Reading	3	-	3	-
7	Professional Ethics	1	-	1	-	7	First Aid & CPR	-	1	-	2
8	Anatomy & Physiology (1)	3	1	3	2	8	Anatomy & Physiology (2)	3	1	3	2
9	Healthcare Basics	1	-	1	-	9	Biostatistics & Epidemiology	1	-	1	-
10	Introduction to Computers (1)	-	1	-	2	10	Computer Applications (2)	-	1	-	2
	SUBTOTAL	17	3	17	6		SUBTOTAL	16	4	16	8
	TOTAL	20		23			TOTAL	20		24	

*T= Theoretical; P= Practical. (GDHCI, 2007: 4).

Students who graduate from the First Year Programme are distributed over the eight specialized fields listed above, according to their overall scores and preferences.

1.2.1.1.   ESP COURSE CURRICULUM

For the purpose of the current study, Graves' definition of language curriculum is used: '...planning what is to be taught/learned, implementing it and evaluating it' (Graves, 2008: 149). Every course has its own curriculum in which objectives are set according to the target specific needs of its learners. The ESP course at the HSCs is no exception. The needs were supposedly analyzed, the goals and objectives were consequently established and the teaching materials (textbooks) selected.[1] In short, the curriculum of the ESP course was planned and implemented by the GDHCI.

The course is considered to be a two-semester extensive course (30 weeks in total) with 11 credits (12 actual hours per week = 360 hours in total). This means that the ESP course constitutes about 51% of the first year syllabus. As shown in Table 1.1 above, the course comprises four major components: Writing & Grammar, Listening & Speaking, Reading and Medical Terminology. A description of each component is given below.

1.2.1.1.1. WRITING & GRAMMAR

This is a two-semester component in which grammar is integrated with writing. It consists of 90 taught theoretical hours (45 hours for each semester: 30 for grammar and 15 for writing). It has four main instructional objectives.[2] According to the GDHCI (2007: 18), at the end of the component students should be able to:

1. Write a text using the acquired writing techniques;
2. Produce good writing in terms of spelling, punctuation, cursive handwriting and grammar;
3. Express ideas correctly and follow writing techniques;
4. Apply all grammatical points in both spoken and written English.

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[1] Personal communication with two educational administrators at GDHCI.
[2] Instructional objectives describe the goals that teachers aim for when teaching (Genesee and Upshur, 1996: 16).

Three textbooks are used in this component: one for grammar and two for writing.

The grammar textbook used in is *English Grammar in Use* (3rd edition), by Raymond Murphy (2004), which is intended mainly for intermediate students. The textbook consists of 145 units organized in grammatical categories (e.g. Present and Past, Articles and Nouns). Each unit consists of two pages, one of explanation and examples and the other of exercises. Seventeen units are taught during the first semester and 26 during the second.

In writing, one textbook is used in the first semester and another in the second. The first is *Keep Writing: A Writing Course for Arab Students*, by Richard Harrison (1989), which is intended for elementary/intermediate students. It has two parts, each consisting of six units. The author states that the main aim of the textbook is to familiarize students with the basic conventions of spelling, punctuation and capitalization and to enable them to write simple and accurate paragraphs on a variety of themes. For example, part one includes topics such as introducing yourself and describing places, while part two focuses on describing a scene, a day and so on.

The textbook used in the second semester is *Interactions (1) (Writing)* (4th Middle East edition), by Cheryl Pavlik and Margaret Keenan Segal (2004), which is intended for lower intermediate students. It consists of 12 chapters covering a range of topics (e.g. health, social life, cultures of the world). Each chapter is divided into four parts: the first explores ideas about the topic, the second is devoted to writing practice, the third to editing and revising, while the fourth part is an exercise.

It is intended that the main teaching strategies used in this component should be 'lecturer discussions, individual works, pair-work and conferencing' (GDHCI, 2007: 18).

1.2.1.1.2. LISTENING & SPEAKING

This is a two-semester component in which listening is integrated with speaking. It consists of 90 theoretical hours (45 per semester) and 60 practical hours (30 per semester). In the first semester, it is claimed that both listening and speaking are dealt with and taught together in the same classes, whereas they are taught in separate

classes in the second semester (45 hours for listening and 30 hours for speaking). According to GDHCI (2007: 18), at the end of the two semesters students should be able to:

1. Understand any spoken or written instruction in English;
2. Form everyday statements and questions;
3. Explain study-related problems to their teachers in spoken English with fluency of speech and accuracy of pronunciation;
4. Comprehend lectures in English; take notes and dictation in English;

In this component, the two textbooks which are used belong to the *Tapestry* series, Middle East edition. In the first semester, *Tapestry (2): Listening & Speaking*, by Mary McVey Gill and Pamela Hartmann (2005) is used. The authors state that it is intended for intermediate students. The text consists of 9 chapters, each of which focuses on one idea. For example, the focus in Chapter three is on introducing oneself.

The textbook used in the second semester is *Tapestry (3): Listening & Speaking*, by Karen Carlisi and Susana Christie (2005), which is designed for high-intermediate students. It consists of 8 chapters, each of which starts with a passage to focus the students' attention on the learning they will do in the whole chapter, followed by a variety of speaking and listening activities (e.g. role plays, debates).

It is claimed that the main teaching strategies used in this component are 'introducing self to others, understanding and giving directions and instructions, talking about general and specialized issues, expressing feelings and needs, describing people and things, asking and giving information about related topics, retelling what you hear and answering oral and written questions about listening texts' (GDHCI, 2007: 21).

1.2.1.1.3. READING

The reading component also lasts two semesters and consists of 90 taught theoretical hours (45 per semester). According to GDHCI (2007: 24), having completed it the students should be able to:

1. Read English with pleasure and interest and comprehend what they read;
2. Read faster and read in ways that meet the expectations of a college student;

3. Understand and practice English reading strategies;

4. Talk and think about a text in new ways;

5. Formulate and articulate ideas more precisely;

6. Experience the connections between reading and writing;

7. Find out new ideas, facts and experiences;

8. Think in English (build linguistic competence as well as performance).

The textbook used in this component is *More Reading Power* (2nd edition), by Beatrice Mikulecky and Linda Jeffries (2004), designed to help intermediate and high-intermediate students develop their reading skills. It is divided into four main parts: Reading for Pleasure, Comprehension Skills, Thinking Skills and Reading Faster. Each part has several sections. For example, Comprehension Skills consists of 10 sections such as scanning, skimming and summarizing.

The main teaching strategies used in this component should be 'building background, retelling, pre-reading and post-reading, questioning a text, drawing inferences, determining importance, synthesizing information, pair-work, individual and group work' (GDHCI, 2007: 24).

1.2.1.1.4. MEDICAL TERMINOLOGY

This is again a two-semester component, of 30 taught theoretical hours (15 per semester). According to GDHCI (2007: 16), at the end of it the students should be able to:

1. Use the newly learned medical terms in all four skills of language;

2. Use the medical terms in professional communication;

3. Recognize all body systems with their names and medical courses;

4. Comprehend and write short medical situations using the medical terms;

5. Understand, read and write short medical reports.

The textbook used in this component is *Medical Terminology: A Short Course* (4th edition), by Davi-Ellen Chabner (2005). It has five chapters: (1) Basic Word Structure, (2) Organization of the Body, (3) Suffixes, (4) Prefixes and (5) Medical Specialists and Case Reports. Each chapter comprises a number of sections with

exercises. For example, Chapter 2 has six sections: Word Analysis, Combining Forms, Exercises, Review, Pronunciation of Terms and Practical Application. Chapters 1 and 2 and the first part of Chapter 3 are taught during the first semester, while the second part of Chapter 3 and the remaining two are taught during the second semester. The main teaching strategies used in this component should be discussions with lecturers, individual work, pair work and conferencing (GDHCI, 2007: 16).

1.3.   STATEMENT OF THE PROBLEM

The English proficiency of many Saudi public school students is poor. Indicating that this has long been the case, Jan (1984: 4) writes that 'the English proficiency and achievement of the majority of Saudi students is completely unsatisfactory and disproportionally low'. In a more recent assessment, Alseghayer (2007: 9) maintains that the level of English language ability of Saudi students is very low after they complete their secondary education. One reason for this poor proficiency might be that English is given an insignificant role and taught as an isolated subject in the school curriculum. Saudi students thus have poor English proficiency in the stages prior to their enrolment in colleges and universities; but do they also have the same level after they enrol in a college where they follow an extensive English course and where English is often the medium of instruction?

In the position of teacher of English for more than three years at a Saudi HSC, I was able to observe that the students of this college encountered difficulty in learning English in the ESP course they followed in their first year. Despite having spent a good deal of time studying English at intermediate and secondary schools (more than 800 taught hours) and one year at the HSC, their English ability and proficiency level remained below the desired and expected standard. Moreover, the level of fluency and accuracy of most HSCs graduates working now as health professionals in the KSA has long been unsatisfactory in the view of the officials concerned at the Ministry of Health, which sponsors and controls the HSCs. They argue that although the KSA has made learning English a requirement for those who aim to work in public hospitals,

dispensaries and clinics, most Saudi nurses are not able to perform their duties reliably because of their poor English proficiency (Alhossaynee, 2006: 34).

It could also be argued that success in the ESP courses does not necessarily mean that HSC graduates are proficient in work-related English or have the ability to communicate without difficulty in the language. This suggests that there may be something wrong with the present ESP course as taught in the HSCs. It might be expected that the course would face such problems, because since its inception in 1991, two essential steps in its development, namely needs analysis and course evaluation (Dudley-Evans and St John, 1998; Flowerdew and Peacock, 2001b; Long, 2005c), have never been followed in order to establish whether it addresses the academic and professional needs of its students, although an NA is obligatory in every genuine ESP course (Johns and Price-Machado, 2001: 49). When target career and learning needs are not identified according to the actual use of the language within a specific context, learners may be disappointed with the language proficiency level that they have once they begin their careers, despite the effort that they have devoted to their language training.

The problem of students' low achievement as well as the weak communication skills of HSC graduates could be ascribed to a possible mismatch between the students' needs, interests and aims and the present English language course. Issues like motivation and attitudes may also play a role here. It must be established whether the underlying problem is the motivation, attitudes or needs of the students, the teaching methodology, the content of the course or the existence of a gap between what the students want to learn and what the HSCs think that they should learn. It is also important to know in what respects HSC graduates are considered to be lacking. That is, what exactly are they able to do and not able to do when communicating in English at work?

In order to enhance learners' motivation, to improve their English language competency and skills and to meet their specific needs, the content of the syllabus, the teaching techniques and the activities followed in their classrooms need be related to the English the students will come across in their medical studies in the college and in their target careers in hospitals and other healthcare establishments. Some research

studies (e.g. Mparutsa et al, 1991; Baird, 2000) have shown that the use of related and specific content might motivate ESP learners.

Hull (2004: 3) observes that the level and methods of basic English language teaching are not adequate for teaching medical English. In the study of health sciences, for example, there is specific lexis which is essential for those who intend to work in the healthcare professions. This suggests that there should be a specific curriculum that would help students to gain proficiency in English in the different areas of healthcare. However, the question arises as to what level of English proficiency future healthcare professionals should have in the Saudi Arabian context. Therefore, this study uses an NA framework to investigate the extent of English use in the HSC students' academic studies and target careers, and the required level in each of the four main skills (reading, speaking, listening and writing) in these contexts.

In addition, given the important role of students' attitudes in affecting the outcome of the process of learning an FL (Gardner, 1985; Harmer, 2007), it is necessary to explore the students' attitudes towards learning English in general and ESP in particular. For example, do they think English will help them to get a better job? Do they think it will be necessary for future study? What do they want from their ESP course? How important is it for their target careers?

1.4. PURPOSE OF THE STUDY

Observing the plans of the Saudi government to increase the quality of the national workforce and to encourage citizens to become specialized in health and medicine, it becomes clear that there is a great need for those who intend to work in these fields to be competent, especially in terms of English, which is often the language of medical communication in Saudi health facilities and hospitals. Wazan (2007: 7) notes that English is the most frequently used language in Saudi hospitals and medical centres, from the patient's file to his/her diagnosis and treatment, as well as at medical conferences. For example, when a patient is about to have an operation under a multinational surgical team, whose members are discussing the details of the operation and its probability of success or failure, they find it easier for this discussion

to take place in English, because most of the necessary medical terms are in English and have no exact Arabic equivalents. Hence, English is used by most if not all physicians and healthcare professionals as a means of communication, although they live and work in an Arabic-speaking country. This reflects the need for all Saudi healthcare professionals to have a high level of proficiency in English, since they deal with a large number of English-speaking employees in their workplaces. According to the Ministry of Health (2007: 103), the proportion of non-Arabic-speaking employees (physicians, nurses, allied health personnel and others) in public hospitals who use English as their usual tool of communication is more than 70%. Furthermore, as Maher (1986a: 206) maintains, English is seen as the main international and intranational language of medical communication. This means that it often plays an important role in both health education and the healthcare professions. Confirming this, a recent study by Alhossaynee (2006: 34) concludes that the low level of English proficiency among Saudi nurses is a major obstacle to effective performance and good health services in Riyadh's hospitals.

English language courses have formed an obligatory part of the curricula of Saudi medical and health colleges and institutions since their establishment. Although these ESP courses aim to equip students with the specific language skills needed for their academic studies and target careers, the question arises as to whether they do indeed address and meet these needs. The importance of needs in ESP courses is in no doubt. It could be argued that ESP promotes learners' motivation because it closely addresses their English language needs. Orr (2001: 208) confirms that 'the first step in ESP is to identify the specific needs of the learner' when creating a university course or designing a workplace training programme. This can help teachers to identify the actual skills that their learners will need for the activities they have to carry out in their academic or professional fields (Hadley, 2006: 4).

This study aims at evaluating the present ESP curriculum of the HSCs in order to improve it in the light of their students' needs as HSC students and as future healthcare professionals. The researcher aims to do this by evaluating the present curriculum and by investigating both the students' perceived needs (from the points of view of students, language teachers and the HSCs) and the needs of healthcare professionals (from the points of view of HSC graduates and non-Arabic-speaking

medical staff now working in healthcare). Through a needs analysis and evaluation using questionnaires and interviews to elicit the subjective perceptions of these populations, as well as document analysis, this study pursues the following objectives:

1. To produce a profile of the English language needs of typical HSC students while at college;

2. To produce a profile of the English language needs of typical HSC students at the early stages of their healthcare careers;

3. To determine to what extent these sets of needs are met by the present ESP course at the HSCs;

and based on these insights,

4. To construct a proposal for improving the ESP curriculum and course to better meet the students' needs.

It is hoped that this study will help to foster further understanding of students' current and future English language needs from a pedagogical perspective in the Saudi setting. In my view, to meet learners' needs we should find out what these needs are and assess them. We may then be able to devise a practical strategy for satisfying learners' goals suited to their needs and interests, because a successful language learning programme is one which fulfils the learners' needs. It is important to explore the specific needs of learners before designing or developing language courses (Munby, 1978; Hull, 2006). The suggestion is that identifying the specific needs of students, as a necessary starting point, would help in the process of successful curriculum development. We also need to evaluate the ESP course in order to assess how well the academic and professional language needs of the students are being met and to describe its strengths and weaknesses.

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learning programme is one which fulfils the learners' needs. It is important to explore the specific needs of learners before designing or developing language courses (Munby, 1978; Hull, 2006). The suggestion is that identifying the specific needs of students, as a necessary starting point, would help in the process of successful curriculum development. We also need to evaluate the ESP course in order to assess how well the academic and professional language needs of the students are being met and to describe its strengths and weaknesses.

1.5.   RESEARCH QUESTIONS

This study attempts to answer the following overall research question:

> *Does the current ESP course at the HSCs adequately prepare the students for their studies and for their target careers?*

More specifically, a number of subsidiary questions are explored as follows:

1. To what extent are the four main skills required in the HSC students' academic studies?

2. To what extent are the four main skills required in the HSC students' target careers?

3. To what extent is the current ESP course at the HSCs appropriate and effective?

This study employs a mixed methodology in an attempt to answer these questions, triangulating the research tools (document analysis, interviews and questionnaires), the sources of information (course students, graduates, teachers, administrators, hospital managers and medical staff) and the settings (three HSCs and five hospitals). These factors will be discussed in depth in Chapter Three.

1.6.   IMPORTANCE OF THE STUDY

The importance of this topic can be attributed, first and foremost, to the shift of focus in the field of language teaching and learning from the teacher to the learner (Hull, 2004: 2), whereby

> ...everything starts from [the learner] and everything goes back to him. It is not merely in relation to him, but with him, and depending on his resources that his learning objectives will be defined, that the methods of judging when and how they have been attained will be selected, and that a curriculum of learning (by curriculum we understand all the means employed to attain the objectives: teachers, teaching materials, technical aids, methods, timetable etc.) will be made available to him (Richterich and Chancerel, 1980: 4).

Having adopted such a learner-centred stance, it is important to analyse students' learning and target needs. The understanding of these needs which emerges can then be used as the basis on which to define appropriately the effective objectives, goals, syllabus and teaching methodologies which constitute the major part of the curriculum.

There is a need to customize the present ESP course at the HSCs to meet the demands of studying health sciences and of working in the Saudi healthcare environment. This need has stimulated my curiosity as to what HSC students need to make their language learning successful and how this language can be used effectively in their academic studies and target careers. This curiosity is a motivating factor for choosing this particular topic. Interestingly, the decision to investigate needs and evaluate the course, rather than to explore some other related topic, can be ascribed to the crucial role that these academic and professional needs play in course design and development, in materials production and in the methodology of teaching ESP to a specific group of learners. An analysis of students' needs, interests, abilities and difficulties is necessary in order to identify what they would like to do with the language, what kind of language they already know, what kind of language they lack and what kind of problems they encounter. An analysis of what and how the language is used in the Saudi healthcare context is also important. Understanding these needs and identifying the kind of language that learners will use in their target careers is likely to be of great importance in the ESP learning and teaching process.

The need to address this topic is highlighted by a number of Saudi researchers who are interested in improving both healthcare quality and health education in the KSA

(e.g. Al-Doghaither et al., 2001; Alshehri, 2001; Alhossaynee, 2006; Alfehaid, 2009). For example, Alhossaynee (2006: 34) asserts that little or no research effort has been made to investigate the present ESP courses for healthcare professionals or to identify their English language needs in the workplace. The assumption is that in order to have a high or even a satisfactory level of healthcare quality, all healthcare workers should have a good command of English. Among the reasons for this is that the quality of spoken and written communication between physicians and nurses (which as argued above is likely to have to be in English) will influence the outcome of patient care both directly and by helping to reduce any barriers that may exist between professional groups (Al-Doghaither et al., 2001: 315).

The main concern of the current study is to investigate whether the ESP course at the HSCs is effective in preparing students for their health studies and for their target careers in the light of students' and graduates' needs, whether its content and methodology are appropriate to its objectives, and whether its stakeholders[1] are satisfied with it. The assumption is that course objectives are always set according to an analysis of students' present and target needs. It follows that the content and methodology of the ESP course will be appropriate only if they serve these needs. Content and methodology refer to the key components of the course, including its 'real' and 'carrier' contents (Scott and Scott, 1984: 211) and 'how teachers and learners work upon' them (Breen, 2001: 151). In this study, these key areas include teaching and learning materials and aids, class activities and methods, syllabus type and organization, and assessment schemes.

The study is intended to help those affected by the course itself to refresh their perception of its planning and implementation. It is hoped that the information provided as a result will be useful in establishing whether ESP students currently studying EMP perceive their specific needs and the course content positively or wish the course to be more specialized. Information gathered about the graduates' work-related language requirements and what they actually lack in terms of effective communication in English is also likely to be useful. In particular, the ESP course

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[1] In this thesis, stakeholders include members of groups affected by the course (teachers and students) and those who make decisions about the future of the course (administrators and sponsors) (Weiss, 1986; 187).

19

designers at the Ministry of Health are expected to benefit from this information when designing future courses. Rea-Dickins and Germaine (1992: 26) justifiably point out that 'evaluation is designed to provide information that may be used as the basis for future planning and action'. More importantly, it would draw ESP curriculum developers' attention to the requirement that their ultimate goal should go beyond the mere 'creation' of new courses to include the 'maintenance' of existing ones (Swales, 1984: 20). It is expected that the work will also be of great benefit to practitioners of other Saudi medical English (ME) courses in that it will help them to revise these courses and diagnose their problem areas. There is usually a high degree of similarity among such ESP courses in terms of context and difficulties faced. The results of this mixed-method research are expected to be transferable to these similar courses (Crocker, 1984: 26).

The potential contribution to knowledge made by this work lies in the fact that as far as I am aware, no other study to date has dealt with this important issue in the KSA. To the best of my knowledge, no attempt has been made to investigate the present and target career language needs of HSC students and graduates, so that these needs are apparently unknown at present. Furthermore, no attempt has been made to evaluate the HSC ESP course. According to the findings of the pilot study, course stakeholders (students, graduates, language teachers, administrators and the GDHCI) are willing to make changes and effect improvements, provided that any modification in the course is based on systematic and comprehensive data collection and analysis, conducted preferably by an insider in an objective manner, i.e. disclosing drawbacks as well as advantages and considering the interests and attitudes of the said stakeholders.

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1.7. ORGANIZATION OF THE THESIS

This thesis is divided into six chapters. This first chapter has set out the background and the setting of the study, as well as the rationale for undertaking it.

Chapter Two reviews the extant literature pertaining to ESP and approaches to curriculum development in ESP. It begins by presenting some definitions of ESP and outlining its history and characteristics. Next, it examines the relationship of ESP to language theories and the approaches to curriculum development in ESP and presents the process of ESP curriculum development. There is also a discussion of the concepts of needs analysis and evaluation, an outline of the classifications of needs and the framework of needs analysis, and a review of some research studies of needs analysis in the ESP context. The chapter goes on to offer definitions and descriptions of types of evaluation in ESP and approaches to course evaluation, then presents the evaluation framework of the current study. It ends with a summary.

Chapter Three depicts the methodological approach adopted to achieve the study objectives. In order to enrich the data from different perspectives, a mixed-method approach was adopted. The research paradigm and design are explained. The development of the procedures and methods for collecting and analyzing the data is described and issues of access and ethics are considered.

Chapters Four and Five present the key findings of the analysis of the research data with regard to the students' language needs and to ESP course evaluation respectively. These include results based on the use of both qualitative and quantitative research techniques. The findings of the study are discussed with reference to each of the research questions and in relation to relevant literature. Each of these two chapters closes with a summary of the major findings.

Chapter Six concludes the thesis by summarizing the study and its key overall findings, focusing on its pedagogical and research implications and indicating its strengths and weaknesses.

CHAPTER TWO: LITERATURE REVIEW

This chapter is divided into three main sections. The first reviews some definitions of ESP, considers its characteristics, outlines its types and subtypes, then goes on to discuss some important approaches to curriculum development in ESP and to identify the process of ESP curriculum development. The second section explains the concepts of needs in language learning and needs analysis, presents classifications of NA, provides an NA framework for the current study and reviews some research studies conducted within such a framework in the context of ESP. The third section addresses the concept of evaluation in English language teaching and learning, reviews a number of approaches to course evaluation and finally provides an evaluation framework for this study.

2.1. DEFINITIONS AND CHARACTERISTICS OF ESP

Strevens (1980: 109) observes that 'a definition of ESP that is both simple and watertight is not easy to produce'. Despite this, the term has been defined by a number of scholars. Robinson (1980: 98), for example, cites fifteen scholars who have attempted to define ESP. This implies that there are many different opinions surrounding the concept and therefore that there is some terminological confusion. Commenting on this, Ewer (1981: 2) writes:

> The terminology of ESP is now getting into such a confused and contradictory state that in my experience it is impossible to carry on a discussion about the subject with practitioners outside one's own work-group for more than a few minutes without misunderstandings arising from this source.

Blackie (1979: 263) notes that 'the term provoked statements of support and hostility as well as contradictory observations, depending on whether ESP was thought to be newfangled and untested, or whether it was simply a new piece of jargon referring to something old'. This suggests that understanding what ESP means simply depends on the viewpoint of the individual(s) concerned. To explain this, one might view the teaching of English for shopping as 'specific', whereas someone else might view this function as being served by a subset of general English. Differences of interpretation

may be geographical as well as functional: as Robinson (1991: 1) puts it, 'what is specific and appropriate in one part of the globe may well not be elsewhere'. This implies that ESP is often subject to varied interpretations.

Notwithstanding the attempt by Mackay and Mountford (1978: 2) to define ESP as 'the teaching of English for a clearly utilitarian purpose', Blackie (1979: 263) calls for 'a satisfactory working definition' of ESP. This may be because Mackay's and Mountford's definition does not seem to cover all aspects of ESP. As an alternative, Blackie (1979: 266) suggests that ESP refers to 'programmes designed for groups of learners who are homogeneous with respect to aims, and whose specific learning objectives have been quantified and stated in communicative terms'. The key aspect of this definition seems to be that of homogeneity within the group(s) of learners, which, as Blackie (1979: 264) explains, can be identified on the basis of two factors: (1) learners' general communicative competence in terms of language skills, which can be determined by a placement test, and (2) their learning needs, which can be determined by an appropriate needs analysis. It seems, however, that Blackie neglects to specify to what extent such homogeneity could be found within a group of learners, since it is often difficult to find a group with absolutely homogeneous needs. Thus, Cunningsworth (1983: 153) observes that 'the needs of the learners in a group may not be identical and in many cases may differ quite considerably one from another'. For Kennedy and Bolitho (1984: 13), the degree of homogeneity within classes with respect to needs, abilities and subject disciplines is one of the most important factors influencing the design and implementation of ESP courses.

Whatever their precise stance on homogeneity, many authors agree that learners' needs are fundamental to ESP. For example, Hutchinson and Waters (1987: 19) argue as follows:

> ESP must be seen as an approach, not as a product. ESP is not a particular kind of language or methodology, nor does it consist of a particular type of teaching material. Understood properly, it is an approach to language learning, which is based on learner need. The foundation of all ESP is the simple question: Why does this learner need to learn a foreign language?

The ESP approach, in this sense, means addressing learners' specific language needs. Munby (1987: 2) supports this view and defines ESP courses as 'those where the

syllabus and materials are determined in all essentials by the prior analysis of the communication needs of the learner'. This implies that the focus is on the purpose of learning the language; but Munby has also introduced the notion of communication into the definition, whereas Hutchinson and Waters (1984: 112) argue that 'ESP is first and foremost a learning process, and it is not possible to have a communicative approach in ESP unless ESP is seen as primarily an educational matter'. Thus far, it could be deduced that ESP courses are or should be based not only on analyzing learners' communicative needs, which are usually derived from the target situation, but also on a complete analysis of all of their language needs, attitudes and interests; in other words, on a comprehensive analysis of the ESP learning and teaching situation.

Smoak (2003: 27) echoes the communicative approach by introducing the concept of real-life tasks, asserting that 'ESP is English instruction based on actual and immediate needs of learners who have to successfully perform real-life tasks unrelated to merely passing an English class or exam. ESP is needs based and task oriented'. One of the apparent limitations of this definition is that it does not explain what kind of real-life tasks are envisaged, e.g. social or occupational. In his definition of ESP, Orr (2001: 207) identifies these tasks:

> ESP is English language instruction designed to meet the specific learning needs of a specific learner or a group of learners within a specific time frame for which instruction in general English will not suffice. Most often, this instruction involves orientation to specific spoken and written English, usually unfamiliar to the average speaker, which is required to carry out specific academic or workplace tasks.

This definition also highlights another aspect of ESP: that there is usually a specified timeframe for ESP courses (Robinson, 1991; Basturkmen, 2006). This suggests that ESP is a learning/teaching process that addresses certain objectives over a relatively fixed period of time.

Notwithstanding variation on such matters of detail, on the whole, the suggestion is that ESP courses are mainly based on an analysis of learners' needs (to be discussed at greater length in section 2.5). McDonough (1984: 29) made this point clearly a quarter of a century ago by stating that 'the idea of analysing the language needs of the learner as a basis for course development has become almost synonymous with ESP in recent years and it is difficult to think of one without the other coming to

mind'. The point seems to be that the outcome of analyzing these needs should help to determine the content of ESP courses.

However, a definition of ESP, as Dudley-Evans (1998: 5) maintains, 'requires much more than an acknowledgment of the importance of needs analysis'. This suggests that there are additional features or characteristics that are central to ESP. In his extended definition of ESP, Strevens (1988a: 1-2) lists four absolute and two variable characteristics, reproduced in Table 2.1.

Table 2.1: Strevens' list of ESP characteristics

ESP Characteristics	
Absolute Characteristics	*Variable Characteristics*
- designed to meet specific needs of the learner;	- restricted as to the language skills to be learned (e.g., reading only);
- related in content (i.e., in its themes and topics) to particular disciplines, occupations and activities;	- not taught according to any pre-ordained methodology.
- centered on the language appropriate to those activities in syntax, lexis, discourse, semantics, etc., and analysis of this discourse;	
- in contrast with 'General English'	

Source: Strevens (1988a: 1-2)

A decade later, Dudley-Evans and St John (1998: 4-5) attempted to modify Strevens' definition of ESP, as presented in Table 2.2.

Table 2.2: Dudley-Evans' and St John's list of ESP characteristics

ESP Characteristics	
Absolute Characteristics	*Variable Characteristics*
- defined to meet specific needs of the learner;	- related to or designed for specific disciplines;
- makes use of the underlying methodology and activities of the discipline it serves;	- uses, in specific teaching situations, a different methodology from that of General English;
- centered on the language (grammar, lexis, register), skills, discourse and genres appropriate to these activities.	- designed for adult learners, either at a tertiary level institution or in a professional work situation, and could also be for learners at secondary school level;
	- generally designed for intermediate or advanced students;
	- assumes some basic knowledge of the language system, but it can be used with beginners.

Source: Dudley-Evans & St John (1998: 4-5)

While 'even today there is a large amount of on-going debate as to how to specify what exactly ESP constitutes' (Brunton, 2009: 2), the two definitions above indicate how broad and multifaceted ESP is. It is also notable that Dudley-Evans and St John list more variable characteristics than Strevens but remove the latter's fourth absolute characteristic, i.e. that ESP contrasts with General English (GE). It is also notable that there is a fair degree of similarity between the two definitions. In pointing out two such areas of agreement, Basturkmen (2003: 49) writes that 'ESP courses are devised on the basis of the specific work-related or academic needs of the learners and the courses offer descriptions of language use in the disciplines or occupations they serve'. Still, as Master (2005: 99) argues, 'ESP seeks to weigh the importance of various elements in the genuine language situations English language learners will encounter'.

To a large extent, both types of characteristics outlined in the two definitions above seem to help in clarifying some contentious questions about the nature of ESP. For example, while some claim that all ESP teaching and materials are specific to the academic discipline or profession being served, it would be unduly restrictive to argue that the term ESP could be used only in respect of subject-specific work, since, as Dudley-Evans (1998: 6) explains, 'where the focus in the class is on common-core skills or genres that belong to any discipline or profession, this is as much an ESP class as the more specific work'. This implies that ESP should not essentially be a process of teaching subject content per se, but rather should concentrate on developing learners' knowledge of English, their language skills and their study skills, in order to help them to learn the subject content they require.

A significant point implicit in the third variable characteristic of ESP listed by Dudley-Evans and St John (1998) is that ESP does not seem to target a particular age group. However, McDonough (1984: 23) states that the majority of ESP learners are adults, 'since it is only by that age that they have developed a specialism or job preference'. Similarly, Robinson (1991: 3) remarks that 'the students on an ESP course are likely to be adults rather than children'. This view, that ESP is usually taught to adults because they are more likely to be aware of specific purposes and needs in learning the language, is shared by Kennedy and Bolitho (1984: 14), who observe that 'the older a learner is, the more likely he is to have his own definite ideas

on why he is learning English. In fact, many ESP learners are adults'. Kim (2008: 1) also notes that 'adult language learners have more compelling and specific needs to learn a foreign language'.

In contrast to the views of McDonough, of Robinson, of Kennedy and Bolitho and of Kim, Steinhausen (1993: 6) argues that 'school children are very aware of why they are learning English and of what their needs are'. Dudley-Evans (2001: 131) also points out that ESP can be taught in schools, even at primary level. While the question of whether ESP is limited to adults or can be extended to younger learners remains open, there is practical evidence of the broader interpretation in some countries. In Saudi Arabia, for example, there are some technical and vocational secondary schools where ESP is taught and it is also offered in some tertiary education institutions. In addition, adults working in both the private and public sectors often attend ESP courses related to their specialized professional needs.

It seems that the issue of defining ESP has generated argument and consensus alike. One apparent area of disagreement among ESP scholars, as Flowerdew (1990: 327) observes, concerns 'the nature and role of the so-called "common core" (a supposed basic set of language items that can be used in all situations)'. This common core hypothesis was proposed by Bloor and Bloor (1986: 13), who suggest that there is a fundamental group of grammatical and lexical items that learners should master before embarking on an ESP course. Consideration of the value of some less specific content in the context of ESP has led scholars to distinguish between two types of ESP course design: 'narrow-angle' and 'wide-angle'. The former term refers to courses for learners targeting a particular professional or academic field, whereas the wide-angle or common core approach refers to courses covering a broader professional or academic field (Basturkmen, 2003: 48). This distinction between narrow-angle and wide-angle courses can be said to reflect the degree of specificity of the aims of ESP courses. Wide-angle courses 'provide learners with a general capacity to enable them to cope with undefined eventualities in the future' (Widdowson, 1983: 6). This implies that they do not fully focus on the purposes of the learners' specific discipline or field. Basturkmen (2003: 50) further distinguishes two types of wide-angle course: those that focus on a language variety (e.g. Academic English, Business English) and those which address learners' common needs with reference to a set of disciplines or occupations (e.g. English for General Academic Purposes, English for Health Professionals).

One of the advantages of courses that focus on a language variety is that 'students do not necessarily need to have a high level of proficiency in English' (Basturkmen, 2003: 59). Another is that 'ESP courses focusing on the common needs across target groups offer advantages of practicality and economy' (Ibid: 57). Students on such courses may also be interested in topics beyond their own narrow specialist discipline or field (Ibid: 58). Confirming this, Mason (1994: 21) observes that 'Health Care students are generally interested in the wider aspects of their field and appreciate an introduction to a variety of topics'. However, a countervailing disadvantage is that courses with a wider focus often seem to neglect students' needs. Johns and Dudley-Evans (1991: 304) identify some studies (e.g. De Escorcia, 1984) which have found that the wide-angle approach needs to be supplemented by an attempt to define students' more specific needs and the actual language difficulties that they face or will face daily, in their academic or professional lives.

Narrow-angle courses, on the other hand, 'provide learners with a restricted competence to enable them to cope with clearly defined tasks' (Widdowson, 1983: 6). This implies that their aims are very specific. According to Basturkmen (2003: 50), narrow-angle courses are based on the analysis of learners' needs with reference to their particular discipline or occupation (e.g. English for Pilots and Air Traffic Controllers). Dudley-Evans and St John (1998: 151) note that a narrow-angle course is appropriate where needs are limited. However, there are a number of problems with narrow-angle designs. Presenting a restricted version of English, narrow-angle designs limit students' ability to use English in that 'they are limited to the precise uses of English that allow them to operate in restricted circumstances' (Basturkmen, 2003: 55). Narrow-angle ESP may also be 'demotivating to the student, and open up a credibility gap between learner and language teacher' (McDonough, 1984: 54). This may occur because some ESP teachers lack a sufficient grounding in their students' specialism, while many learners 'already have problems enough with language without adding an additional conceptual load' (Kennedy and Bolitho, 1984: 51).

Another area of disagreement among ESP scholars concerns classroom methodology. Arguing that the emphasis has been on needs analysis and content, Widdowson (1983: 87) maintains that 'methodology has generally been neglected in ESP'. Likewise, Hutchinson and Waters (1987: 2) assert that 'ESP has paid scant attention to the

question of how people learn, focusing instead on the question of what people learn'. This implies that the common approach to ESP has often been language-centred and not learning-centred. It is suggested that ESP needs to be seen first as a learning process (see section 2.3.5.).

It seems that the definitions of ESP reported above focus generally on three points: the nature of language (specialized discourse), the specific purpose or goal of learners in learning it (learners' needs) and the contexts in which language is taught and used (specific learning settings, e.g. medical college, and specific domains, e.g. hospital). In the context of this study, ESP is understood as the teaching and learning of specific English at tertiary level to a group of adult learners who will use it both in their current academic study as healthcare students and in their future careers as healthcare professionals, in order to function effectively in these specific situations.

2.2.   ESP TYPES

While it 'has yet to establish itself as either a full profession or as clear sub-discipline in the language sciences' (Swales, 2000: 62), ESP as a type of ELT[1] (Hutchinson and Waters, 1987; Robinson, 1989; Dudley-Evans, 2001; Kennedy, 2001; Master; 2005) can be divided into different types (Kennedy and Bolitho, 1984; McDonough, 1984; Robinson, 1991; Carter and Nunan, 2001; Belcher, 2006). This division of ESP can often be useful (Coffey, 1984; McDonough, 1984). As Kennedy and Bolitho (1984: 3) observe, ESP types 'provide an overall picture of the main groups of learners which might be of concern to an ESP teacher'. In addition, the division of ESP can be helpful in differentiating ESP courses from those of GE. Throughout its history, ESP scholars have suggested different ways of categorising ESP types, such as those of Strevens (1983: 92), Hutchinson and Waters (1987: 17) and Dudley-Evans and St John (1998: 9).

Traditionally, ESP has two main types: EAP (English for Academic Purposes) and EOP (English for Occupational Purposes) (Kennedy and Bolitho, 1984; McDonough, 1984; Hutchinson and Waters, 1987; Robinson, 1991; Jordan, 1997; Dudley-Evans and St John, 1998, Flowerdew and Peacock, 2001a; Belcher, 2006; Master, 2007;

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[1] However, Barnard and Zemach (2003: 307) argue that 'ESP should not be regarded as a discrete division of ELT, but simply an area (with blurred boundaries) whose courses are usually more focused in their aims and make use of a narrower range of topics'.

Kim, 2008; Krzanowski, 2008). This implies that 'learners for whom ESP is appropriate are either engaged in studying a particular subject in English, or are following a particular occupation for which they need English, or both' (Strevens, 1988b: 39). Hutchinson and Waters (1987: 16) explain that 'people can work and study simultaneously; it is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the student takes up, or returns to, a job'.[1] Thus, the two main purposes of ESP are study and work, while some learners will need it for both. Indeed, the type of ESP under investigation in the present study is assumed to prepare its students for both their academic studies and their professional lives.

EOP 'refers to English that is not for academic purposes; it includes professional purposes in administration, medicine, law and business, and vocational purposes for non-professionals in work or pre-work situations' (Dudley-Evans and St John, 1998: 7). Therefore, EOP is often closely related to students' work or profession, because 'they are most likely required to have a certain level of English proficiency at work which is an indicator of good work performance' (Kim, 2008: 1). That is, EOP courses often attempt to improve work-related language skills. Kennedy and Bolitho (1984: 4) explain that there may be differences in such courses depending on whether students are learning English before, during or after the time they are being trained in their work or profession. EOP can be subdivided into English for Professional Purposes (EPP; e.g. EMP) and English for Vocational Purposes (EVP) or Vocational English (Dudley-Evans and St John, 1998: 6).

EAP is defined as 'the teaching of English with the specific aim of helping learners to study, conduct research or teach in that language' (Flowerdew and Peacock, 2001a: 8). This seems to imply that the nature of EAP is often educational. Watson Todd (2003: 149) observes that 'the main goal of EAP is for students to communicate effectively in academic environments'. EAP focuses on equipping students with the specific communicative skills to participate in these environments (Hyland and Hamp-Lyons, 2002: 2). EAP is also subdivided into many types. According to

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[1] Hyland (2006: 23) argues that the major differences between the EAP and EOP instruction contexts is that less consensus exists on the language, skills and communicative behaviours required in the world of work.

McDonough (1984: 6), Dudley-Evans and St John, (1998: 7) and Jordan (2002: 73), the main type of EAP is considered to be English for Science and Technology (EST). However, it seems that EST can correspond to both occupational and academic uses of English: occupational when it addresses the needs of oilfield workers, engineers, etc.; academic when it is for school and university students studying physics, maths and chemistry through the medium of English (Robinson, 1980: 8).

Holme (1996: 2) explains that EAP was developed along with ESP as one of its types, concerned with the specific purpose of following academic courses at the university level. Another explanation views EAP as having a quite different, general study-skills orientation, rather than requiring specific language context analysis (Jordan 1997: 4). According to this explanation, EAP is subsumed under ESP, which could be reflected in the names of its sub-specializations (e.g. English for Studying Biological Sciences, English for Law).

The impression given here is that ESP refers to any English teaching context where the target language context is known and can inform the teaching syllabus about the language skills, language context or language types of the necessary teaching tasks. As Widdowson (1998: 3) argues, the danger is that this might result in a view of all language teaching as a kind of ESP, so that there would be subcategories such as English for issuing train tickets. Yet if one adds a discourse community requirement and looks for a more widely practised concept of language use, one sets some limitations on what is ESP and what is not. The designation then seems to apply only if one is preparing students for entry into a community of product and discourse, imposing demands on the intake to the ESP course. At present, it could be said that ESP is a very large and expanding research field. Accordingly, the types that can be listed under ESP have expanded too. McDonough (1984: 7) lists sixteen ESP course titles and asserts that 'the list is almost endless'. It seems that as many as sixteen or twenty types of language study can be identified under ESP and the process is continuing to expand as fields of research and practice develop.

One difficulty is that in spite of its simplicity, the distinction between EAP and EOP can lead to confusion, because the distinction is not clear-cut (Hutchinson and Waters, 1987; Flowerdew and Peacock, 2001a) in that these two broad categories often

overlap (Belcher, 2004: 179). Thus, this distinction is not always valid and its vagueness can be ascribed, as Belcher (2006: 134) notes, to the fact that 'the goals of EAP and EOP are not always easily separable'. For instance, English for Economics may be for either academic or occupational purposes. In other words, 'an English course designed to help students read economics textbooks would clearly be EAP, but a course designed to teach learners how to participate in business meetings or take phone calls definitely has an EOP dimension to it' (Flowerdew and Peacock, 2001a: 11-12). One can argue that this confusion might contribute to that over the concept of ESP itself.

In conclusion, it could be suggested that ongoing development in various fields which use English has resulted in more specific needs for the language in certain domains. That is, the more specific the domain, the more specific the needs. In this respect, Holme (1997: 2) proposes a pyramid of specific needs whose higher levels represent more specific language needs, resulting in the opportunity for more specific branches to emerge within the domains. For example, EAP is less specific but at successive levels it becomes more specific, reaching the very specific English for an Academic Conference (EAC). In this sense, Holme (1997: 2) suggests that the bottom of the pyramid (e.g. EAP and EOP) might be considered a category for specialization rather than a specialization by itself. This means that EAP is seen as a branch (category or specialization) of the enterprise of ESP. Some (e.g. Hamp-Lyons, 2001; Turner, 2004), however, see EAP as a distinct field and a (study) skills-based specialism, while others see ESP as describing types of specialization within EAP. Indeed, many courses used to work like this; they would begin with basic study skills on writing essays, for example, then specialize the activity within the discipline (e.g. writing business studies essays). This does not make sense, as it ignores the EOP area. ESP needs to be seen simply as teaching language where students' needs can be specified within academic or occupational zones of use, or in Swalesian terms (1990), where future discourse communities can be identified.

2.2.1. ENGLISH FOR MEDICAL PURPOSES

English has become both the international and intranational language of medicine (Maher, 1986a; Dzuganova; 2002). Consequently, those who intend to join the medical or healthcare field 'need English as a means of doing their work efficiently

and of furthering their specialist education' (Kourilova; 1979: 431). Thus, the use of English in the medical or healthcare field is not limited to countries where it is spoken as a first language. It may be the neutral language used by non-native doctors and nurses in hospitals in non-English-speaking countries. It may also be used between countries where English is used as a foreign or second language. For example, in a country such the KSA, where developing technology is used with medicine, members of a surgical team would communicate in English with their counterparts in a hospital in France, while performing a live transmitted operation, exchanging ideas or consulting in order to obtain the best surgical outcome.

EMP emerged in 1960 (Maher, 1986b: 114) as a recognizable subtype of ESP (McDonough, 1984; Maher, 1986b; Dudley-Evans and St John, 1998; Hull, 2006; Antic, 2007). Maher (1986b: 112) defines English for Medical Purposes as 'the teaching of English for doctors, nurses, and other personnel in the medical professions', then goes on to explain that EMP:

    a. is designed to meet the specific English language needs of the medical learner (e.g. nurse, dentist);

    b. focuses on themes and topics specific to the medical field;

    c. focuses on a restricted range of skills which may be required by the medical learner (e.g. for writing a medical paper, preparing a talk for a medical meeting).

It is significant that Maher places English language needs first. Maher's definition seems to imply that all medical learners' language needs are identical. However, in EMP, although there may sometimes be overlaps in the English language needs of medical learners, there may often be many differences between the needs, for example, of dentists and nurses. Confirming this, in her investigation of the English language needs of paramedical students in Kuwait, Adams-Smith (1980) found that they had very different needs from medical students. Moreover, the needs of learners studying EMP in a non-English-speaking country might be different from those doing so in an English-speaking country. Munby (1978: 2) affirms that 'there should be important differences in the English course for a non-native requiring English in order to study medicine in his own country as opposed to England'.

Maher (1986b: 115) suggests that there are two main types or branches of EMP. The first is English for Medicine for Educational Purposes (EM-EP) or what Dudley-

Evans and St John (1998: 49) call Medical English for Academic Purposes. The second type is English for Medicine for Occupational Purposes (EM-OP) or what Dudley-Evans and St John (1998: 49) call Medical English for Occupational Purposes. In EM-EP, which involves language training as part of primary medical or healthcare studies (Maher, 1986b: 115), students have to read textbooks and articles as well as write essays and short clinical reports (Dudley-Evans and St John, 1998: 49). EM-OP, on the other hand, is associated with active professional requirements (e.g. consultation skills, conference presentation) (Maher, 1986b: 115). In EM-OP, practicing doctors, for example, read specialist articles and prepare papers and slide presentations for conferences (Dudley-Evans and St John, 1998: 49). Maher (1986b: 115) explains that while EM-EP and EM-OP teach the same skills (e.g. reading medical reports) and share content (e.g. infectious diseases), the teaching procedures, levels of knowledge and specific purposes may be different for doctors and students. This suggests that EM-EP students' needs may be different from those of EM-OP students.

Most EMP courses, as Maher (1986b: 116) points out, are structured according to two essential frames: the type of learner involved, the main groups being nurses and doctors, and the main purpose of the courses (e.g. to teach professional test preparation, practice in reading, writing, etc., or doctor-nurse interaction). Needs analysis can help in shaping and identifying these two basic frames.

However, in situations where English is a foreign language, as in the current study, 'EMP has been confined almost entirely to the needs of doctors' and 'much less attention is given to medical students, nurses and paramedical staff' (Maher, 1986b: 123). Maher (1986b: 138) concludes that in these situations there is no description of the language needs of medical students and the 'result is an incomplete picture of EMP in operation overseas – in medical education especially'. The current study attempts to fill this gap by targeting one of these situations.

2.3. APPROACHES TO ESP CURRICULUM DEVELOPMENT

ESP has benefited throughout its development from language learning theories as well as general learning and approaches to course design (Richards, 2001). It seems that this has led to certain differences in approaching ESP in both teaching and learning. Generally, Hutchinson and Waters (1987: 65) identify three major approaches to ESP:

language-centred, skills-centred and learning-centred. While the first two approaches aim to base the content of the ESP course on the analysis of target situation, a learning-centred approach goes beyond that, and recognizes the learning situation (Hutchinson and Waters, 1987). These approaches have successively originated from the six-stage of ESP development, which can be identified as follows: (1) Register Analysis, (2) Rhetorical Discourse Analysis, (3) the Functional-Notional Approach and Communicative Language Teaching, (4) the Skills and Strategies Approach, (5) the Learning-Centred Approach and (6) Genre Analysis (Swales, 1985; Robinson, 1991; Dudley-Evans and St John, 1998; Garcia Mayo, 2000; Flowerdew and Peacock, 2001a; Kim, 2008). These stages reflect the fact that ESP is capable of self-renewal (Flowerdew, 1990: 327) and is a developing field (Robinson, 1989: 427). They are discussed below in approximately chronological order as suggested by McDonough (1998a: 157-158). For reasons of space, only a brief review of each stage is presented.

2.3.1. REGISTER ANALYSIS

Robinson (1991: 20) observes that 'register has been a fruitful term in the field of stylistics, but also the basis of research in ESP'. The term has been defined variously by different linguists. For example, Halliday (1978: 23) defines register as 'the set of meanings, the configuration of semantic patterns, that are typically drawn upon under specific conditions, along with the words and structures that are used in the realization of these meanings'. Mackay (1981) views register as a norm of language use or field of discourse, which is essential to a discussion of style. Halliday and Hasan (1985: 38) divide register into three components: field, tenor and mode of discourse. According to William (1984: 315), the field is concerned with the ongoing social activity of a text, the tenor denotes the social relationships between participants and the mode signifies the medium of communication (e.g. spoken or written) and the channel. These three components, taken together, determine the register (Halliday, 1978: 31). In that sense, register may include a wide variety of fields, which would range from the language of minor documents like receipts, vouchers or greeting cards to more highly specialized fields like medicine and technology. Halliday adds the

transactional registers such as those used when selling and buying in markets, shops, etc. and the register of doctor-patient or doctor-nurse communication. This implies that certain registers are associated with particular occupations.

In the first stages of ESP development, the benefit of register seemed to be in identifying some linguistic features by which certain teaching areas are marked. Since then, register has often enabled ESP researchers and investigators to identify different areas of interests in teaching English to different learners and for different purposes, as well as identifying, although at a later stage of research within register and ESP, the discoursal community for these areas. Richards (2001: 30) explains that 'register analysis studies the language of such fields as journalism, medicine, or law for distinctive patterns of occurrence of vocabulary, verb forms, noun phrases and tense usage'. Register analysis is often used in ESP in combination with frequency studies to identify the linguistic features needed for students on an ESP course (e.g. Barber, 1962; Ewer and Latorre, 1969; Ewer and Hughes-Davies, 1971; 1972). According to Hutchinson and Waters (1987: 10), the main goal of register analysis is to produce a syllabus focused on the language forms that learners would commonly meet in their study and working lives, rather than those that they would not meet.

Robinson (1991: 20) states that the identification of certain linguistic features of a specific domain or field has led some others to claim that 'a special language' will arise when users in a particular domain use English in a particular way, so that bankers, for example, can be said to use 'Banking English'. Sager et al. (1980: 69) offer a narrower definition of special languages as 'semi-autonomous, complex semiotic systems based on and derived from general language [whose] use presupposes special education and is restricted to communication among specialists in the same or closely related fields'. This means that English as a special language is based on GE and requires specialized training. What might be understood from this definition is that in an ESP context, register reflects the view that ESP implies a special language rather than a specific purpose on the part of the learner. For example, in the ESP situation of the current study, register would imply the use of a special lexis for healthcare and medical purposes, as well as special structures that suit the contexts of the healthcare environment, whether in learning or at work.

De Beaugrande (1989: 6) asserts that language for specific purposes does not fulfil the requirements for a language in the usual sense, as it is not 'composed exclusively for its own recourses'. Voracek (1987: 53) argues that the term 'special language' is

inaccurate, while Lauren and Nordman (1986: 20) suggest that 'technolect' would be more useful and accurate. However, this term, whose suffix '-lect', as in 'dialect', means 'a form of a language' and which therefore signifies 'a special form of a language', appears to be uncommon among scholars.

The problem with register analysis and frequency studies is that they 'cannot be used as a main basis for selection' of syllabus items (Coffey, 1984: 4). That is, register analysis is insubstantial as a basis for selecting the content of an ESP syllabus, in the sense that it is often difficult to establish what distinguishes a language register. Register also describes a language rather than explains it, so it has more to do with quantified linguistic features and forms, rather than function or use (Swales, 1985; Hutchinson and Waters, 1987; Robinson, 1991; Bhatia, 1993; Flowerdew and Peacock, 2001a).

Kennedy and Bolitho (1984: 9) add that although these studies are useful in teaching a basic grammatical code of science, they do not indicate to the learner when s/he should use the forms and what they mean as acts of communication. Widdowson (1979) strongly criticizes the tendency to provide lists of the special language of science, arguing that the pedagogic application of the results of register analysis studies has led to the teaching of 'usage' as opposed to 'use'. Usage, as Widdowson (1979: 8) explains, is the exemplification of linguistic rules, where language is seen as isolated grammatical items, while use is the manner in which these rules are drawn upon to perform social acts or the ability to do so. Mackay and Palmer (1981) maintain that most studies of register analysis avoid the social functions of language by labelling texts in general ways, without showing what detailed purposes they exist for. This implies that rather than considering lexical items and structures alone, it is important to focus on the purpose of learning, that is, helping learners to attain the communicative ability and knowledge required in their fields of study and/or work. ESP mainly rests on the premise that we use language to achieve purposes as well as to engage with others as members of social groups (Hyland, 2002: 392).

These criticisms of register analysis led to the second key movement in ESP, discourse or rhetorical analysis (Dudley-Evans and St John, 1998: 22).

2.3.2. RHETORICAL AND DISCOURSE ANALYSIS

Rhetorical and discourse analysis, which was the second stage of ESP development, emerged as a reaction to the earlier focus on register analysis, with the aim of giving a

better account of language use by extending the analysis beyond the sentence boundary (Hutchinson and Waters, 1987; Benesch, 2001). That is, the new approach emerged to address some weaknesses of the old one. Richards (2001: 31) observes that 'register analysis focused primarily at the level of the word and sentence and sought to identify the registers that characterized different uses of language, such as business letters, academic textbooks, and technical writing'. This means that the approach did not identify the linguistic structure of longer samples of written or spoken text; the rhetorical and discourse analysis approach was introduced in the 1970s in order to do just that (Richards, 2001). An example of early research in this area is that of Lackstrom and his colleagues (1973); for a thorough discussion of this research, see Trimble (1985).

Discourse analysis is a means to study texts in relation to the particular social context in which they are used (Hyland, 2009: 20). For example, as Johns and Dudley-Evans (1991: 299) observe, discourse analysis in ESP 'refers to the examination of written and oral language, generally for purposes of designing curricular materials'. This approach assumes that the importance lies not in the relative frequencies of use of features, as was assumed in register analysis, but the choice of certain features rather than others in developing a text (Robinson, 1991). This means that the primary focus is on the text, whether written (e.g. reports, instructions, letters) or spoken (e.g. conversation, lecture, dialogue), rather than the sentence. Therefore, the introduction of discourse analysis changed the focus from sentence structure to identifying and understanding how sentences were combined to produce meaning at a discourse level (Hutchinson and Waters, 1987).

This marks a movement from usage to use, form to function and grammar to discourse and communication (Bhatia, 1993). The movement may have been stimulated by the notion that 'teaching English as a medium for science and technology must involve us in the teaching of how scientists and technologists use the system of the language to communicate, and not just what linguistic elements are most commonly used' (Widdowson, 1979: 13). The assumption is that many ESP learners will already have a grammatical knowledge of the language and they are unlikely to welcome a repetition of instruction in it. What they need instead is an opportunity to use this knowledge to 'communicate with people and to cause things to be done, to describe and explain events, to qualify and hypothesise' (Kennedy and

Bolitho, 1984: 3).The implication for ESP course designers is that the communicative needs of learners need to be taken into account when designing ESP courses.

Johns and Dudley-Evans (1991: 297) argue that discourse analysis is a distinguishing feature of ESP development that sets it apart from GE. Kennedy and Bolitho (1984), Hutchinson and Waters (1987) and Richards (2001) see discourse analysis as a development which had a profound influence on ESP. It was a logical development of the functional-notional (F-N) approach to language, which suggests that there is more to meaning than just words in the sentences (Hutchinson and Waters, 1987: 33). In other words, it suggests that there are other important factors that affect the meaning of the discourse, such as the context of the sentence (Hutchinson and Waters, 1987). This view introduced the idea of relating language form to language use and made use the main criterion for the selection of ESP teaching materials (Dudley-Evans and St John, 1998: 22).

Hutchinson and Waters (1987: 34) identify two ways in which the findings of discourse analysis studies have been used in ESP teaching materials. The first is that 'learners are made aware of the stages in certain set-piece transactions associated with particular specialists fields'. That is, the transaction of a particular discourse develops sequentially, one stage upon the other. One example of this kind that Hutchinson and Waters present is the analysis of doctor-patient communication by Candlin et al. (1976). Using materials that explain how meaning is created by the relative positions of the sentences in a written text is the second use of discourse analysis in ESP. Allen and Widdowson (1978: 59) argue that this approach has become an important feature in many ESP textbooks, which seek to develop a knowledge of how sentences are combined in texts to produce real meaning. This seems to be an attempt to meet the needs of ESP learners and to help them to perform specific functions (e.g. defining, classifying, comparing, identifying) in particular communicative contexts.

This approach has been criticized on the grounds that while it represents the real nature of discourse, in that it establishes the functional patterns, it does not consider how these patterns create meaning (Coulthard, 1977: 147). Teaching learners sentences with particular structural properties or making them aware of the functional patterns in a given discourse does not necessarily mean that they will be able to use these patterns in communication (Hutchinson and Waters, 1987: 37).

2.3.3. THE FUNCTIONAL-NOTIONAL APPROACH AND COMMUNICATIVE LANGUAGE TEACHING

The F-N approach to ESP syllabus design and language teaching first emerged in the 1970s as a reaction to the limitations of the structural approach (Armstrong, 2005: 12), mainly to provide learners with an understanding of the communicative use of the structures they had learned (Hutchinson and Waters, 1987: 26). The structural approach, according to Richards and Rodgers (1986: 17), suggests that 'language is a system of structurally related elements for the coding of meaning. The target of language learning is seen to be the mastery of elements of this system'. These elements include phonological units (e.g. phonemes), grammatical units (e.g. clauses, sentences), grammatical operations (e.g. adding, joining) and lexical items (structure words and function words) (Richards and Rodgers, 1986: 17). In this approach, the syllabus does not address communicative skills, but focuses on the sentence rather than on longer units of discourse and on form rather than meaning (Richards, 2001: 153). These are some of the limitations of the structural approach which are criticized by advocates of the F-N approach (e.g. Widdowson, 1979).

Krahnke (1987: 30) notes that in the F-N approach the categories of language use are taken as the organizing principles of instruction. The approach is based on the assumption that learners are learning the language to some practical end (West, 1992: 2); therefore, the syllabus is usually categorized into units based on specific topics drawn from specific situations for the purpose of achieving specific objectives.

It is the sensitivity to learners' needs which is the main characteristic of the F-N approach to language teaching (Finocchiaro and Brumfit, 1983: 9). In the early 1970s, as Hutchinson and Waters (1987: 31) and Richards (2001: 36) contend, the functional approach began to influence language teaching, as a result of the Council of Europe attempting to seek means of teaching European languages effectively, 'particularly with the needs of adult learners in mind' (McDonough and Shaw, 1993: 21). In other words, the Council of Europe attempted to find a simplified way of presenting syllabuses for learning languages and avoiding the focus on certain formal features of some European languages which were difficult for their learners. That is, there was a need to move away from teaching language as a grammatical system to teaching it for communicative purposes.

The development of the F-N approach was combined with Communicative Language Teaching (CLT) (Krahnke, 1987: 29). According to Savignon (1991: 263), CLT

covers 'methods and curricula that embrace both the goals and the processes of classroom learning, for teaching practice that views competence in terms of social interaction'. This means that teaching language in CLT is based on inventories which can be arrived at by considering presumed communicative needs. This way of teaching stems from a theory of language as a communicative tool (Richards and Rodgers, 1986: 68).

Littlewood (1981: 93) maintains that one of the most characteristic features of CLT is that it gives more systematic attention to functional as well as structural aspects of language. Armstrong (2005: 13) explains that in this approach, 'while the teaching of structures, vocabulary and pronunciation are not neglected, learners are generally given the opportunity to communicate in speech and writing, with an emphasis on fluency and the primacy of communication'. Larsen-Freeman (1986: 132) identifies the most distinctive techniques of CLT as students working in pairs or groups, role-plays and problem-solving tasks. Howatt (1984: 279) adds that in CLT there is an emphasis on acquiring language through communication and not only 'activating an existing but inert knowledge of the language, but [...] stimulating the development of the language system itself'. This means that the language is used to be learned.

Swales (2000: 61) points out that ESP has good connections with CLT. Some ESP scholars tend to believe that CLT best satisfies the requirements of ESP and prepares learners for the use of English in real life. For example, Widdowson (1979: 252) observes that 'in ESP a communicative approach seems to be the obvious one to adopt because even the most elementary assessment of needs reveals that learners will have to put the language to actual use outside the language teaching context'. This approach was investigated in the current study to see whether HSC English language teachers used it or not.

The F-N approach is not also without limitations. Hutchinson and Waters (1987: 32) argue that its main problem is that it was adopted as a replacement for the structural approach and not particularly taken as a syllabus itself. The two approaches are seen as being in opposition (McDonough, 1984: 55), when they should complement and support each other, since structure + context = function (Hutchinson and Waters (1987: 32). Kennedy and Bolitho (1984: 10) and Richards and Rodgers (1986: 74) criticize the F-N approach as merely replacing lists of grammatical items with lists of notions and functions, making it only a specification of products rather than a way of teaching communicative processes.

2.3.4. SKILLS AND STRATEGIES

While the above approaches all focus on the surface structures of the language, the skills-strategies approach is concerned with the mental processes that underpin language use. According to Hutchinson and Waters (1987: 13), the basis of this approach is that:

> underlying all language use there are common reasoning and interpreting processes, which, regardless of the surface forms, enable us to extract meaning from discourse. There is, therefore, no need to focus closely on the surface forms of the language. The focus should rather be on the underlying interpretative strategies, which enable the learner to cope with the surface forms.

That is, successful language learning and teaching depend not only on the analysis of the nature of the language but also on understanding the psychological processes involved in comprehending and producing it. Researchers have long paid attention to the psychological processes involved in comprehension and production. Within ESP, for example, Widdowson (1978) discusses the interpretative strategies used by both the reader and listener to discover the meaning of unknown words (e.g. guessing their meaning from the context in which they are presented, analyzing their meaningful parts). Recently, there has been an increase in research into these strategies (e.g. Schmitt and McCarthy, 1997; Schmitt, 2000; Laufer, and Yano, 2001; Alfehaid, 2006).

The skills-strategies approach to course design is related to projects in ESP to develop certain abilities, skills and strategies in students (e.g. works on reading skills include those of Grellet, 1981; Nuttall, 1982; Alderson and Urquhart, 1984). It usually aims to help learners in developing their skills and strategies not only during the ESP course but after it. The purpose is not to identify a special corpus of linguistic knowledge, but to make learners better processors of information, based on the belief that people learn by thinking about and attempting to make sense of what they see, feel and hear (Hutchinson and Waters, 1987: 43). Kim (2008: 8) observes that 'learning is a process of relating new events or items to existing concepts in a meaningful way through the senses'.

In a skills syllabus, as Johnson (1996: 164) maintains, language behaviour is divided into skills, as in general areas of reading, writing, listening and speaking, then into sub-skills or micro-skills, as when reading (which can be described as a macro-skill) is broken down into reading for information, skimming and scanning. It is suggested

that underlying the skills syllabus is Widdowson's (1981: 2) distinction between the 'goal-oriented' approach to course design (i.e. based on a description of terminal behaviour: focusing on the ends of learning) and the 'process-oriented' approach (i.e. based on transitional behaviour: focusing on the means of learning). The F-N syllabus and the structural or grammatical syllabus tend to focus on the end products or results of the learning/teaching process, while the skills syllabus tends to focus on how language is learned and used (Nunan, 1988a: 40).

The skills-centred approach, as synonymous with the process-oriented approach (Hutchinson and Waters, 1987: 69), is realistic in focusing on strategies and processes which enable learners to be aware of their abilities, motivating them to approach target texts on their own after their course (Holmes, 1982: 8). It enables learners to activate some skills and strategies which they are expected to apply in using the language (Widdowson, 1981: 5). This seems to be an effective way of learning the language, since it sees learners as users of language rather than as mere learners (Hutchinson and Waters, 1987: 70). It focuses on behaviour or performance in relation to specific activities and tasks (Richards, 2001: 161), making it suitable as a framework for designing related syllabuses and materials, which in turn is more likely to produce a course related to learners' needs.

The skills-centred course design can be seen to be linked with needs analysis within ESP (Benesch, 2001; Hyland, 2006). That is, through NA, course designers can identify priorities from among the four main language skills for a particular situation. Hutchinson and Waters (1987: 70) point out that NA provides a basis to discover the underlying competence that enables people to perform in target situations.

Traditionally, the skill-centred approach has been criticized for not focusing on developing more integrated and global communicative abilities, because it is concerned only with discrete aspects of performance (Richards, 2001: 161). This implies that breaking language into distinctive skills might make learning ineffective and that language needs to be learned as a whole rather than in separate categories, since the four language skills do not generally occur in isolation in real-life situations. However, the recent trend in designing language courses has been towards integrating the four language skills (Brown H, 2001: 232). Skills integration is usually manifested in the adoption of the modern 'whole language' approach to language curriculum design, whereby reading, for example, is treated as one of three interrelated skills (ibid). According to Oxford (2001: 5), one important advantage of the integrated-skill

approach is that English language learners are challenged to interact naturally in the language, since they are exposed to authentic language; therefore they can gain a true picture of the richness and complexity of English as employed for communication. McDonough (1998b: 323) points out that 'in the field of ESP, there is a natural link between the principle of integrated skills teaching and the notion of the "target situation", for the obvious reason that a learner's eventual goal is a real-world professional or academic context'. The suggestion is that ESP students can be introduced to and trained in tasks similar to real-life ones, i.e. 'employing the same skills and strategies as would be required in the target situation' (West, 1997: 34), such as doctor-nurse dialogue for medical purposes.

One of the most common ways to approach the integration of the four skills is task-based language teaching (Brown H., 2001: 242). This approach makes use of tasks (e.g. following directions, giving instructions) as the basic units of planning and instruction in SL teaching (Richards, 2001: 161). That is, tasks drive language classroom activities, define syllabuses and determine assessment procedures. In this study, a task is generally 'an activity or goal that is carried out using language' (ibid). To explain this, 'tasks are activities which have meaning as their primary focus. Success in tasks is evaluated in terms of achievement of an outcome, and tasks generally bear some resemblance to real-life language use' (Skehan, 1996: 20). It is argued that the task-based approach to ESP represents a viable response to the study- and work-related needs of students. Indeed, many modern NAs in ESP increasingly use tasks as the focus of investigation (Basturkmen, 2010: 144), based on the argument that 'learners are far more active and cognitively-independent participants in the acquisition process than is assumed by the erroneous belief that what you teach is what they learn, and when you teach it is when they learn it' (Long, 2005b: 3). According to Long and Crookes (1992: 44), the design of task-based syllabuses for ESP needs to include the identification of target tasks, breaking these tasks down into task types and deriving pedagogical tasks from these task types. The implication is that task-based approaches to ESP create conditions for learners to communicate through interaction in the target language, introduce authentic texts to learning situations, enhance learners' own personal experience and link classroom language learning with language activation outside the classroom (Nunan, 1991: 279). Still, while task-based instruction considers students primarily as users rather than learners of language, the assumption is that 'a truly valid approach to ESP must be based on an

understanding of the processes of language learning' (Hutchinson and Waters, 1987: 14), an approach which is discussed below.

2.3.5. THE LEARNING-CENTRED APPROACH

The concept of the learning-centred approach was introduced by Hutchinson and Waters (1987). This new perspective contrasts with the previous four approaches, which focus on descriptions of language use (i.e. what students do with the language), addressing instead what they have to do in the classroom to learn the language. The point is that too much emphasis was felt to have been put on the identification of language to be learned and taught in ESP courses and too little on how this language was to be learned and taught. Bowers (1980: 66) observes that syllabuses 'have been constructed which consider the learner not qua learner but qua user of the target language in defined communicative contexts'. Advocates of the learning-centred approach suggest that 'a language is best learned when the focus is not on the language, that is, when the learner's attention is focused on understanding, saying, and doing something with language, and not when their attention is focused explicitly on linguistic features' (Kumaravadivelu, 2006: 92). Hutchinson and Waters (1987: 14) clearly explain the point:

> our concern in ESP is not with language *use* – although this will help to define the course objectives. Our concern is with language *learning*. We cannot simply assume that describing and exemplifying what people do with language will enable someone to learn it. If that were so, we would need to do no more than read a grammar book and a dictionary in order to learn a language. A truly valid approach to ESP must be based on an understanding of the processes of language *learning*.

The learning-centred approach aims to maximize the potential of the learning situation and to look beyond the competence that enables the learner to perform, to discover how the learner acquires that competence. This might involve considering very fully the process of learning, learners' motivation and learning styles (Dudley-Evans and St John, 1998: 26). As Holliday (1984: 29) puts it, the learning-centred approach is more liberal than traditional approaches to ESP.

According to Hutchinson and Waters (1987: 74), the learning-centred approach takes the learner fully into account at every stage of the course design process. This has two implications. First, course design in the learning-centred approach is a negotiated process, in which both the ESP learning situation and the target situation influence the nature of the syllabus, materials, methodology and evaluation procedures. This, in

turn, implies that learning is not only a psychological process but also a negotiated one. Second, course design in this approach is a dynamic process where needs and resources vary with time and feedback channels have to be established to see the response to the development of the ESP course.

Hutchinson and Waters (1987: 74) identify a number of stages of the learning-centred course design process. It begins by identifying learners in relation to analyses of both the learning and target situations. The authors point out that the learning situation relates to theoretical views of learning, while the target situation relates to theoretical views of language. The second stage involves two tasks, the first being an identification of learners' attitudes, their potential needs and wants, and the constraints of the learning and teaching situation; at the same time, there should be an identification of the skills and knowledge required to function in the target situation. This leads to the stages of writing the syllabus and materials to make use of the learning situation to acquire the skills and knowledge required by the target situation, then evaluating this syllabus, followed by the reiteration of the earlier stages as necessary. Thus it is a dynamic process (Hutchinson and Waters, 1987: 74). What seems to be unique in the learning-centred approach to ESP is that it includes evaluation as an integral part of the course design process (see section 2.6 for more details of course evaluation).

The learning-centred approach seems to imply that the analysis of the learning situation and that of the target situation go hand in hand. That is, they are seen as complementary rather than conflicting. Bloor (1984: 17) asserts that it is desirable to analyze the needs of both the target and learning situations in order to construct an adequate teaching/ learning syllabus. Likewise, McDonough (1984: 31) states that a detailed specification of target and learning needs would be both welcome and necessary.

Hutchinson and Waters (1987: 72) distinguish between the terms 'learning-centred' and 'learner-centred'. They prefer the former because the latter suggests that 'learning is totally determined by the learner' and thus 'a truly learner-centred approach does not really exist'; whereas reference to 'a learning-centred approach' places the learner as one factor in the learning process and suggests that learning is 'a process of negotiation between individuals and society' (Hutchinson and Waters, 1987: 72). This implies that the learning-centred approach is seen as a communicative approach in the sense that 'communicative' means 'making decisions, appropriate to the educational

47

environment, about whether or not, or how often to have pair or group work, and about the lesson's focus—on speaking, reading, writing, grammar, pronunciation, etc., none of which need be precluded in a communicative approach' (Holliday, 1994: 7). This, in turn, means 'taking into account the needs and expectations of all parties involved in the learning process when designing courses and selecting methodology' (Hutchinson and Waters, 1984: 108), i.e. 'all the parties that make up the social dynamics of the classroom and the wider social milieu that affects what happens in the classroom (e.g. course directors, institute principals' (Holliday, 1984: 29).

While its negotiated and dynamic nature makes the learning-centred approach a valuable one, it has been criticised as complex and time-consuming (Hutchinson and Waters, 1987: 77), which may have restricted its deployment to some extent.

2.3.6. GENRE ANALYSIS

Swales (2004: 3) points out that 'the first use of the term genre in ESP only occurred in 1981'. According to Paltridge (2001: 2), it was first introduced in an ESP Journal article by Tarone and her associates on the language of scientific research reports and in Swales (1981).

In one definition,[1] Swales (1990: 58) states that 'a genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community, and thereby constitute the rationale for the genre'. Swales (2004: 61) himself admits that he is 'less sanguine about the value and viability of such definitional depictions'. Based on Swales' definitions and others, Bhatia (1993: 13) offers a comprehensive definition of genre:

> It is a recognizable communicative event characterized by a set of communicative purpose(s) identified and mutually understood by the members of the professional or academic community in which it regularly occurs. Most often, it is highly structured and conventionalized constraints on allowable contributions in terms of their intent, positioning, form and functional value. These constraints, however, are often exploited by the expert members of the discourse community to achieve private intentions within the framework of socially recognized purpose(s).

A number of differences can in fact be observed between the above definitions. For example, Swales seems to focus on linguistic and sociological aspects of genre, whereas Bhatia's definition also considers the psychological aspect.

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[1] It is to be noted that there is no absolute consensus concerning the definition of genre (see Swales 1990; Robinson, 1991; Johns, 1993; Hammond and Derewianka, 2001).

Hyon (1996: 695) observes that 'researchers in ESP have been interested in genre as a tool for analyzing and teaching the spoken and written language required of nonnative speakers in academic and professional settings'. This is known as genre analysis (Swales, 1981, 1990; Bhatia, 1993; Berkenkotter and Huckin, 1995; Benesch, 2001; Basturkmen, 2002; Johns, 2002; Hyland, 2006). According to Bhatia (1997: 313), genre analysis:

> is generally understood to represent the study of linguistic behaviour in institutionalized academic and professional settings. Instead of offering a linguistic description of language use, it tends to offer linguistic explanation, attempting to answer the question, *Why do members of specific professional communities use the language the way they do?*

The scope of ESP has broadened and become 'thicker', to include genres of writing, speech and perhaps interaction which ESP learners will use in their academic and/or professional discourse communities. As Swales (2004: 1) explains, 'there has been a continuing and accelerating interest in centralizing the concept of genre in specialized language teaching and in the development of professional communication skills'. Research into genres in ESP may 'include discussions with insider members of the community to identify which genres are highly significant for the group, the communicative purposes of these genres, and expectations held for them' (Basturkmen, 2006: 56). This type of research can give insight into the ways of thinking of those in the target communities and offer linguistic, social and cognitive information.

Hyon (1996: 694) identifies three different approaches to genre analysis or what he calls research traditions. The first is ESP Analysis, which primarily comprises Swales' (1981, 1990) and Bhatia's (1993) works on genre. The second is the North American New Rhetoric studies, whose exponents include Bazerman (1988) and Berkenkotter and Huckin (1995). The third is the Australian Genre Theories, represented by the work of systemic functional linguists such as Martin (1989), Cope and Kalantzis (1993) and Halliday and Martin (1993). Belcher (2006: 141) maintains that these three traditions 'have been instrumental in moving ESP toward a more sociorhetorical view of genre'. Hammond and Derewianka (2001: 186) add that 'they serve to highlight the similarities and differences of how the notion of genre has been adopted as a theoretical construct as a basis for practical teaching strategies'. For

thorough discussions of these traditions, see Yunick (1997) and Hammond and Derewianka (2001).

Robinson (1991: 27) observes that 'genre analysis is an exciting and fruitful development within ESP'. This seems to be true, since genre analysis research in both professional and academic contexts is rapidly developing (e.g. Bhatia, 1993; Hafner, 1999; Paltridge, 2001; Samraj; 2002). Ford-Sumner (2006: 8) notes that genre analysis has increasingly been applied within the healthcare field, as it relates to medical practice and education. There have been many studies that focus on analyzing genre in different healthcare contexts (e.g. Shi et al., 2001; Eggly, 2002; Hussin, 2002). This means that genre analysis can be helpful in identifying the nature of the written and spoken language associated with the healthcare field as well as its cultural, social and contextual features. It can help in understanding how professionals in the field speak and write appropriately.

The problem with genre analysis is that it is mainly descriptive and usually ignores important issues that impact on students' language learning, such as their learning needs, attitudes and interests. Dudley-Evans (1997: 62) also argues that the use of genre analysis in ESP classrooms can hinder the development of students' individual voices. Moreover, West (1997: 37) maintains that there has been a disappointing lack of application of genre analysis research to pedagogy. This suggests that some findings of genre analysis do not always seem to properly inform course designers or promote the choice of appropriate teaching materials. There remains the question of how easily the findings of genre analysis research can be translated into pedagogy.

2.3.7. DEVELOPMENTS AND CURRENT STATUS OF ESP

The above review of approaches to ESP development may lead one to recognize the lack of fairly recent literature in this field. Despite this, the review shows that ESP has undoubtedly benefited from the various approaches described above, such as register analysis, discourse analysis and genre analysis. Unlike the first days of ESP when one or two of these approaches dominated the field, there is currently an 'acceptance of many different approaches and a willingness to mix different types of materials and methodologies' (Dudley-Evans and St John, 1998: 30). However, while 'it is better seen as a recently-evolved species that best thrives in certain secluded and restricted kinds of habitat' (Swales, 1985: 208), ESP can be seen from a different viewpoint.

Widdowson (1998: 3) argues that the term 'English for Specific Purposes' assumes that it is English which is somehow 'peculiar to the range of principles and procedures' which determine that particular profession and so we have 'English which is specific, associated with a kind of institutional activity which is also conceived of as specific'. He questions the nature of this specificity and concludes that ESP 'is what communication in English in general is all about'. Communication, he asserts, is closely related to community and culture. That is, if people do not share a common view, a common culture and the linguistic categorization that goes with it, 'then communication will prove difficult' (Ibid: 6). In presenting some examples of texts, Widdowson explains that when a text fails to textualize a discoursal relationship (although its syntax and semantics are clear), there will be no convergence on shared knowledge, no common frame of reference. That is, 'there is cohesion without coherence' and what causes the problem is 'a disparity in perceptions of the world' (Ibid: 5-6). Therefore, one cannot make sense of a particular text unless one is provided with a frame of reference and is familiar with the relevant discourse. In other words, understanding the syntactic structure of a text does not necessarily mean comprehending it as a discoursal process.

The main conclusion is that knowing the language is not always enough to communicate. As Young (2009: 145) points out, 'use of language is only one way in which individuals create a community'. The emphasis here is on the 'discourse community' of communication in ESP cases. In this context, Widdowson (1998: 7) observes that 'communication implies community and membership is mediated with the meaning of the text'. It is not enough to know the semantic meanings of the words, because 'words are schematically connected to form the conceptualizations of reality which define the culture of a particular discourse community'. This means that being acquainted with the aspects of the culture of a particular discourse community is of considerable importance in communicating within it.

The implication here is that attending to ESP teaching needs not only develops students' language ability but also introduces them to the culture of their discourse community. This means that when investigating ESP students' needs, it is important to 'perceive the target situation and the learning situation as aspects of the same continuum identifiable as social action or communicative exchange'; therefore, 'a

course objective should not be to separate the student from the language they have to learn, or the language from its circumstance of use, or the act of acquisition from the act of use' (Holme, 1997: 4).

Basturkmen (2002: 31-33) identifies some areas of inquiry that ESP researchers should address in order to work towards the development of ESP. These uninvestigated areas include the role language plays in workplace, academic and professional environments (How does ESP teaching present the roles of language in these specific environments? How do people communicate in these environments?), the nature of competency in ESP (How can competency in ESP be defined? What are its constituents? How is language competency viewed in workplace, academic and professional environments and how does an individual's language competency impinge on progress in them? What makes someone a communicatively competent doctor, nurse, etc.? How are language needs defined?), the nature of ESP learning (What is the role of ESP learner motivation? What special characteristics does the learner need to have to be successful in learning? What conditions may lead to greater or less success for the ESP learner?) and the function of ESP teaching (What are the mission statements, aims and objectives of ESP teaching projects and courses? What is the function of the ESP teacher? What qualities and knowledge does the teacher need? What roles does the teacher play in the ESP classroom?). The current study is inspired by questions such as these.

As Basturkmen (2002: 29) argues, it is in exploring these areas that some fundamental aspects of ESP can be established. Otherwise, ESP is only partially explained and may continue to focus on practice rather than theory. It follows that investigating these areas may lead to a broad theoretical basis for ESP. This underlying theory could be based either on the specific nature of the texts that learners need knowledge of, or on the needs-related nature of teaching (Dudley-Evans and St John, 1998: 1). It may be concluded that the literature has focused mainly on practical issues of ESP and on relating course and materials design to learners' needs. These issues are discussed in the following sections.

2.4.   ESP CURRICULUM DEVELOPMENT PROCESSES

According to Richards (2001: 2), the history of language curriculum development starts with the concept of syllabus design, which is considered as one aspect of it.

Syllabus design is the process of developing a syllabus and normally focuses on the selection and organization of the content of a particular course (White et al., 1991; Richards, 2001). It is suggested that the process of ESP curriculum development is more comprehensive than that of syllabus design. For the purpose of the current study, curriculum development refers to 'the processes that are used to determine the needs of a group of learners, to develop aims and objectives for a program to address those needs, to determine appropriate syllabus, course structure, teaching methods, and materials, and to carry out an evaluation of the language program that results from these processes' (Richards (2001: 2). This definition implies that the process of developing an ESP curriculum is composed of different interrelated stages or components. It follows that there should be an organized way of covering these components.

Various models of language curriculum development have been suggested by a number of curriculum design experts (e.g. Brown, 1989; White et al., 1991; Graves, 1996a; Richards, 2001; Nation and Macalister, 2010). While these models generally vary in their emphasis and major components, they have a notable commonality, namely that the curriculum development process is an ongoing cycle. Given the time and resource constraints, the current study makes use of Brown's curriculum development model (1989: 235) because of its flexibility and simplicity. According to this model, the curriculum development process has six components: needs analysis, objectives, testing, materials, teaching and evaluation of the curriculum being developed, as depicted in Figure 2.1.
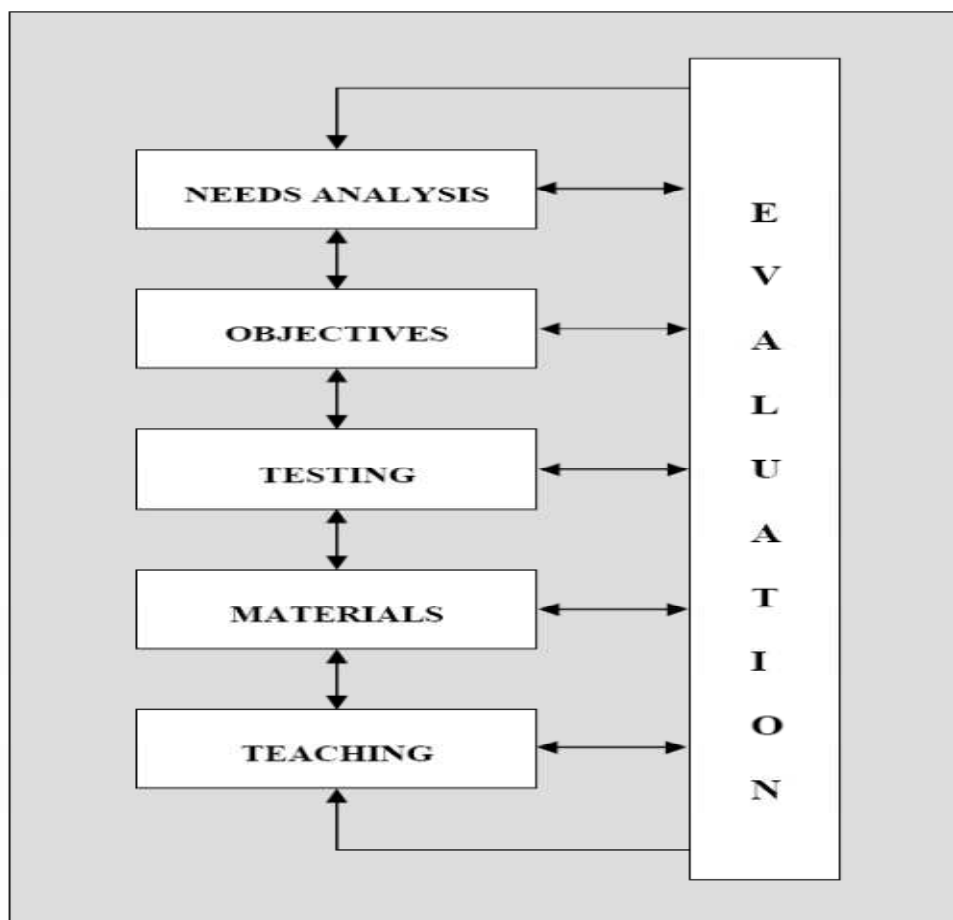
Figure 2.1: Brown's Language Curriculum Development Model (Brown, 1989: 235)

Brown (1989: 236) describes his model as a systematic approach to designing and maintaining a language curriculum. This means that it can be adopted for the maintenance of an existing language course such as the ESP course under study. Course curriculum development in this model is seen as a process which may change and adapt to new conditions and requirements. These conditions might be, for instance, changes in needs and attitudes, in environment or resources.

Figure 2.1 above suggests that the six components constitute a closely integrated and interrelated process. The implication is that a change in one component will tend to affect the other components and the whole process. Figure 2.1 also shows, as Brown (1989: 236) notes, that curriculum evaluation is a central component that connects all of the components and holds them together. That is, each component is evaluated to provide a continuing process of curriculum development. While it does not

necessarily occur as a series of steps in a fixed order, this process normally starts by conducting an NA as a key step (see section 2.5.3 for details of NA). Each of the other components is arranged according to the information and insights obtained from the NA. Therefore, goals and objectives are formulated according to the learners' needs. The third component is developing appropriate assessment procedures, which should be based on the goals and objectives. Next, the information obtained from the NA, the goals and objectives and the assessment are used in the selection and development of appropriate materials and instruction. The last component is the ongoing evaluation of the earlier components and of the course as a whole in terms of their appropriateness and effectiveness (see section 2.6 for details of evaluation).

In sum, following a systematic approach to curriculum development such as the one shown above ensures a direct link between needs, course objectives, materials, assessment and instruction. It may be concluded that the logical first step in developing an ESP curriculum is to identify the specific needs of learners, as addressed in the following section.

2.5.   ESP LEARNERS' NEEDS

There is a widespread assumption that ESP is designed mainly to meet the specific needs of learners. Indeed, in much of the ESP literature, there is a general consensus that ESP is driven from the outset by learners' needs (Robinson, 1991; Jordan, 1997; Dudley-Evans and St John, 1998; Master, 1998; Flowerdew and Peacock, 2001a; Johns and Price-Machado, 2001; Hyland, 2006; Harding, 2007, Basturkmen, 2010). Any discussion of learners' needs naturally presupposes a preliminary clear understanding of what is meant by the term 'needs' in the context of language learning in general and in ESP in particular.

2.5.1. DEFINITIONS AND CHARACTERISTICS OF NEEDS

The first essential point to make is that the term 'needs' 'is both ambiguous and imprecise' (Chambers, 1980: 26); it 'is not as straightforward as it might appear' (Richards, 2001: 54). The term has been conceptualized very differently by a number of researchers. Hence, it may cover a broad range of meanings in the ESP context, such as learners' goals, desires, preferences, demands, interests, necessities, wants,

expectations, lacks, requirements and motivations, their awareness of their rights, their language proficiency, their reasons for taking a course, their teaching and learning constraints, gaps in their knowledge and even their fantasies (Chambers, 1980; Beatty, 1981; Richterich, 1983; Brindley, 1984; Johnson et al., 1987; Robinson, 1991; Benesch, 2001; Hyland, 2006).

Widdowson (1983: 20) explains that 'the absence of distinction between aims and objectives leads to an ambiguity in the expression of learner needs'. He goes on to explain that aims can refer to what the learner will have to do with the language once s/he has learned, leading to a goal-oriented definition of needs which suggests that they are related to the ends of learning the language. Such aims, goals or ends are distinct from pedagogic objectives, a term which refers to what the learner has to do in order to learn the language and whose use indicates a process-oriented definition of needs, relating them to the means of learning the language. It can be understood from these two complementary definitions that needs are often closely related either to the aims or to the objectives of learning the language. In this respect, Holec (1980: 7) emphasizes that defining objectives is very important to the identification of needs. He observes that the definition of an objective as either content-centred or learner-centred is based on three factors. The first is that there is a core of knowledge that is essential for all learners and has been predefined by linguistic analysis. This might differ in some respects from the specific knowledge of the language that a particular group of learners may wish to acquire. The second is that the minimal level of competence is defined by criteria that are independent of the learner (usually taking the native speaker as a model). The third factor is that the purpose of defining needs is to set up a teaching system and to develop teaching materials which are efficient and cost-effective.

While Widdowson (1983: 20) maintains that the ambiguity concerning needs is a result of the failure to distinguish between aims and objectives, West (1994: 3) argues that it stems from the needs themselves, because they include various contradictory concepts such as necessities or demands (also called objective, product-oriented or perceived needs), learners' wants (subjective or felt needs) and the methods of bridging the gap between these two (process-oriented needs). Chambers (1980: 26) considers this terminological inexactitude a constant problem and maintains that it sometimes appears that although researchers are interested in essentially the same phenomena, no two projects refer to them by the same nomenclature. To overcome

this problem, it seems that a researcher has either to be exhaustive and take into consideration the whole range of meanings which the term 'needs' may cover, or to limit him/herself to a narrow and unequivocal definition of the term.

Robinson (1991: 23) offers a practical description of needs as 'a matter for agreement and judgment, not discovery'. This suggests that needs already exist with learners and are merely required to be brought into the light. However, Brindley (1984: 29) offers an opposing view that 'need is not a thing that exists and might be encountered ready-made on the street. It is a thing that is constructed'. This view is shared by Richterich and Chancerel (1987: 9), who say that needs 'are built up by individuals or groups of individuals from an actual example of experience'. Needs in this case do not exist prior to a project, but rather appear to be a product of previous educational experience negotiated by those involved in this experience (e.g. language teachers, learners, employers). For many, the term 'needs' implies that there is a gap to be bridged between a present state and a desired future one, or progress to be made toward a desired goal, or a change to be made (Beatty, 1981; Graves, 2000). It follows that ESP courses aim to bridge this gap or some part of it, to help learners to make progress and/or to effect the preferred change.

Although scholars thus describe learners' needs differently, most (e.g. Trim, 1980; Brown 1995; Harding, 2007; Cooke and Simpson, 2008; Reguzzoni, 2008) agree that needs:

1. are multiform or multifaceted;
2. are amenable to change;
3. are not constant or fixed facts;
4. vary from one person to another depending on the interaction between individuals and their environment and on their activities;
5. are not entirely independent;
6. are always constructed;
7. can be identified and analyzed.

It is accepted nowadays that in the ESP context, 'needs' is a broad term covering learning and linguistic factors (Hyland, 2006: 73). However, as observed by Richterich (1983: 3), 'what is essential is not so much to give an accurate definition of the word "need" as to measure pragmatically the educational, ideological and political effects, scope and impact in the actual process of teaching and learning, of the

methodological issues related to the identification of needs'. Therefore, the ambiguity of the term and its multiple meanings should not be seen as a major problem. In this study, ESP learners' needs are understood to include their reasons for studying ESP, their current abilities in the main language skills, English language tasks, functions and activities that will be used both in their academic studies and target careers, the extent of English language proficiency in each main skill required in their academic studies and target careers, means for learning/teaching ESP, e.g. methodological and materials preferences, difficulties or problems encountered while learning and using English and information about the circumstances in which English is learnt and will be used.

2.5.2. TYPES OF NEEDS

It is clear from the above that there is no absolute agreement regarding the definition and consequently the types of need (Chambers, 1980). This does not necessarily mean that it is difficult to know what needs are, only that their nature may vary according to who is discussing them. The following subsections examine ways of categorising ESP needs.

2.5.2.1. REAL Vs. IDEAL NEEDS

De Escorcia (1985: 229) distinguishes between two types of needs. According to his distinction, in English language learning, especially in ESP, there are real needs and ideal needs. He describes real or what Harding (2007: 17) calls immediate needs as those that are realized in most cases towards the end of learners' careers 'when more specialized up-to-date reading material has to be handled'. This has three implications. First, learners may not feel a real or immediate need for specialized English at the time they are offered their ESP courses; thus it is important to raise their awareness of the target situation and of its associated real needs. Second, they should not often be expected to make sound judgments about their real needs, because, as Scrivener (2005: 71) argues, students genuinely do not know what they need or want. Richterich and Chancerel (1987: 3) also observe that 'experience shows that in general the learner is little aware of his needs and, in particular, he is unable to express them in very clear terms'. This also suggests that teachers or instructors are responsible for investigating learners' needs and for raising their awareness of the need to express and explain their needs and difficulties. Third, real needs are usually seen to be closely related to what occurs in the target situation, in contrast to ideal

needs, which as the term implies, refer to an ideal situation or state in which learners are expected or supposed to be. De Escorcia (1985: 229) explains it thus:

> Every student in a Colombian university is aware, in an abstract general way, of the necessity of studying English. He knows that a great deal of the literature in Science and Technology is mainly available in English. He also knows that an ambitious professional who wants to do graduate work will often have to find his way to a university in the USA.

Apparently, this type of need, the ideal need, may vary according to one's standpoint and particular circumstances, whereas the real or primary need, for De Escorcia, is the minimum knowledge that learners must have in order to finish their studies successfully and easily.

2.5.2.2. OBJECTIVE Vs. SUBJECTIVE NEEDS

A number of scholars (e.g. Brindley 1989; Brown, 1995; Tudor, 1996; Van Avermaet and Gysen, 2006) identify two different and probably contrasting types of need: objective and subjective. On one hand, Brindley (1989: 70) and Van Avermaet and Gysen (2006: 20) state that objective needs are those which can be derived from factual information about learners, their use of language in real-life communicative situations, current language proficiency and language difficulties. That is, objective needs are gathered from objectively observable data (Brown, 1995: 36). This means that objective needs tend mainly to concern concrete linguistic factors. On the other hand, subjective needs are those of learners in their learning situation, derived from both cognitive and affective factors (e.g. their self-knowledge, awareness of target situations, attitudes towards learning English, wants and instructional expectations) (Brindley, 1989; Belcher, 2006). In other words, subjective needs refer to unobservable data such as desires (Brown, 1995: 37). It can be said that terms such as 'self-knowledge', 'attitudes', 'wants' and 'expectations' address broader concepts within needs and possibly not only linguistic but also non-linguistic factors. That is, the emphasis seems to be on how learners learn language and this can entail encouraging their participation and investment.

Brindley (1989: 70) maintains that it would be possible to collect data on both subjective and objective needs, while Graves (1996a: 14) points out that subjective needs are often as important as objective ones in that the latter may not be met unless the former are taken into account. This suggests that in ESP course design, objective and subjective needs should be identified and balanced. While considering only

subjective needs formulated by learners themselves, without paying attention to their objective needs, may not be in their long-term interests, an exclusive focus on objective needs may also not be desirable (Van Avermaet and Gysen, 2006: 21).

2.5.2.3. TARGET Vs. LEARNING NEEDS

Hutchinson and Waters (1987: 54) make a distinction between target needs and learning needs. Generally speaking, the former are what learners require in the target situation, i.e. the knowledge and abilities they must have to be able to perform to the required level of competence and proficiency in the target situation. Chambers (1980: 30) describes these as real and long-term needs. Hutchinson and Waters (1987: 55) classify target needs into three types:

1. Necessities: These are the demands of the target situation, i.e. what learners need to know to function effectively in the target situation (e.g. linguistic features: discoursal, functional, structural, lexical). Necessities represent the destination.

2. Lacks: It is important to match the target proficiency against the existing proficiency of the learners. The gap between them is what the learner lacks, e.g. in order to read text in a particular subject area. Lacks are considered to be the starting point of a journey towards the above destination.

3. Wants: These represent the learners' view of what their own needs are, i.e. what they feel they need, which might be different from or conflict with the views of other people involved such as course designers, teachers and sponsors (e.g. the learners' personal aims for studying English). Wants are considered to cause disputes as to what the destination (represented by the necessities) should be.

In view of the above descriptions, it could be argued that all subtypes of target needs are concerned mainly with language use, particularly in the target situation, which as Chambers (1980: 29) asserts, 'has so far been largely ignored' in NA research.

In addition, language needs appear to be seen as a matter of negotiation between the learners and their society. It also seems that both necessities and lacks represent objective needs, whereas wants represent subjective ones, but the perception of particular needs as objective or subjective may vary from one person to another. This raises the possibility of conflicting needs and wants among the parties involved. For example, Robinson (1991: 8) maintains that students and teachers may be expected to

have divergent views of ESP needs. Presenting an example of the potential conflict in the identification of students' needs, Young (2000: 73) writes:

> Take the situation of students attending a university foundation course before setting out for their chosen faculties. Their own perceptions may prioritize fluency in informal conversational situations; their teachers may place greater emphasis upon the reading comprehension and writing skills required to pass successfully through this stage of the system; the faculties may require study skills, note-taking, report writing, or the ability to construct argument; the wider community to which they are destined may perceive student needs rather differently again, and by no means homogeneously.

This does not mean, however, that the needs of a particular project are inherently contradictory. Harris and Bell (2003: 42) emphasise that 'different individuals and different groups will have different needs', while Kennedy and Bolitho (1984: 14) write more optimistically of the possibility of 'agreement on needs between teacher and student'. What seems to be required, as Chambers (1980: 26) suggests, is to establish the different levels of need and allot some system of priority among them. Porcher (1983: 134) identifies three levels of need in language teaching and learning, as follows:

- For what purpose does a person learn a language? What does he want or what will he do with this language at the end of the course? This, it might be said, is the non-language aspect of the language need. What purpose will the acquired language serve?

- To achieve these aims, what language competencies must the learner have? What communicative skills does he need in order to do what he wants or has to do? This is the language translation of language needs.

- In order to acquire these competencies, in order to obtain these communicative skills, what types of language knowledge must he possess (lexis, morphosyntax, etc)? Conversely, what types of linguistic knowledge must the teacher teach? This is the level of content, of progressions, of methodologies, of curricula, in brief of all the linguistico-didactic ingredients out of which a language course is made up.

Porcher suggests that these three levels must be taken in the above order, because it is in this order that the link of dependence between them operates. This implies that to take one level without the others might be ineffective. It is suggested that researchers

involved in analyzing students' needs might classify the questions which they want to ask according to these levels.

However, Robinson (1991: 3) observes that 'whereas needs analysis formerly focused rather exclusively on target or end-of-course requirements, now it is usual to take account of students' initial needs, including learning needs'. Learning needs, or what Garcia Mayo (2000: 38) calls pedagogic needs, refer to what learners need to do in order to learn the language (Hutchinson and Waters, 1987: 54). They correspond to the route that enables the learners to move from the starting point (lacks) to the destination (necessities) and could include their knowledge of English, skills, strategies, preferred styles and ways of learning the language, problems encountered in doing so and their motivation for and attitudes towards this learning. This suggests that learning needs are primarily concerned with why and how the language is learnt in the learning situation. In other words, it seems that learning needs are entirely pedagogic in nature. However, Savage and Storer (2001: 141) argue that learning needs can be seen as 'instructional logistics needs' in that they relate to questions of the purpose of the course, type of instructional resources and location and time of the course.

2.5.3. INVESTIGATION OF LEARNERS' NEEDS

In FL/SL teaching, increasing importance is attached to careful studies of learners' needs as a prerequisite for effective course design (Long, 2005b: 1). They are usually identified and analyzed through the process of needs analysis or assessment (Johns and Dudley-Evans, 1991; Benesch, 1996; Belcher, 2006; Hadley, 2006; Harding, 2007; Oanh, 2007; Graves, 2008; McCarter and Jakes, 2009). According to West (1994: 1), the term 'needs analysis' was introduced by Michael West in India in the 1920s when he was attempting to identify why learners should learn English (answer: in order to read) and how they should do so (answer: through reading). Boswood (1990: 59) explains that the NA originally focused on analysis of the target situation, but recently 'it has widened its coverage considerably. Apart from objective information, it now includes analysis of students' subjective views about their learning and life goals, their preferences for methodology and learning styles, and the opinions of any other stakeholders in the courses'. This suggests that the notion of NA was once fairly simple and limited, until the need to expand its scope was seen.

While Nunan (2001: 57) relates the appearance of NA in language learning to the development of CLT, Chambers (1980: 33) comments:

> The term 'needs analysis' itself is of course not original to EFL; it is one that has been adopted as relevant from other fields. When it was adopted it filled a gap, and served its purpose by creating an object from an activity for us to be able to manipulate. However, by taking wholesale someone else's terminology, we have ended up with a term that is by no means entirely appropriate. We have accepted the term 'needs' as the end product of the analysis.

This means that NA is closely related to the existence of needs. That is, if needs are not apparent and/or established they can be identified and analyzed. This suggests that in the language learning environment learners have needs which require analysis. Analyzing them is very important in curriculum and course design. Dornyei (2001a: 140) recommends that 'to make the curriculum and teaching materials relevant to the students, [you should] use needs analysis techniques to find about your students' needs, goals and interests, and build these into your curriculum as much as possible'. This implies that NA helps to avoid basing courses on expediency, such as by overreliance on published textbooks as a quick solution. There also seems to be a common realization that the intuition and knowledge of curriculum developers, materials designers and teachers concerning specific language and learning needs are insufficient and that identifying and analyzing these needs through a thorough NA is essential.

In the context of language learning and teaching, NA is 'a systematic collection and analysis of all subjective and objective information necessary to define and validate defensible curriculum purposes that satisfy the language learning requirements of students within the context of particular institutions' (Brown 1995: 36). Graves (2000: 98) states that NA is not only a systematic process but also 'an ongoing process of gathering information about students' needs and preferences, interpreting the information, and making course decisions based on the interpretation in order to meet the needs'. This suggests that learning preferences which enable learners to acquire particular skills are another aspect of NA that should be taken into account when conducting NA. Richards et al. (1992: 242) consider additional aspects of NA and define it as

the process of determining the needs for which a learner or group of learners requires a language and arranging the needs according to priorities. Needs analysts gather subjective and objective information about the learner in order to know the objectives for which the language is needed, the situation in which the language will be used, with whom the language will be used, and the level of proficiency required.

This definition is thought to be appropriate for the current study, since it seems to cover different aspects of learners' needs.

Richards (2001: 52) lists some (but not all) of the purposes which NA can serve in language learning and teaching:

- To find out what language skills a learner needs in order to perform a particular role, such as sales manager, tour guide or university student;

- To help determine if an existing course adequately addresses the needs of potential students;

- To identify a change of direction that people in a reference group feel is important;

- To identify a gap between what students are able to do and what they need to be able to do;

- To collect information about a particular problem learners are experiencing.

Underlying the NA process is a theoretical basis that determines its accomplishment. According to West (1994: 2), this is curriculum development (see section 2.4). Consequently, it seems plausible to argue that determining learners' needs is essential to successful language learning and teaching. Since the early 1960s, there appear to have been three main tendencies regarding curriculum development: improving teaching methods, adapting the teaching to the type of learning public and training the learners in how to learn (Holec, 1980: 263-264). West (1994: 2) asserts that NA 'has been rooted in the second of these tendencies and, more recently, the third'.

Two different approaches to the analysis of learners' needs are widely known. The first is the model of Richterich and Chancerel (1977; 1980) and the second is Munby's (1978) Communicative Syllabus Design.

Richterich and Chancerel (1977) analyze language needs in terms of language situations and language operations. A language situation is composed of three types of information:

- Information about the agents (the people involved in the communication process e.g. the learners, the teachers and the employers). Information is needed from these agents with regard to their identity, their numbers and their social and psychological roles;
- Information about the time when the act of communication takes place, such as its duration and its frequency;
- Information about the place where the act of communication takes place, such as its geographical and physical characteristics.

The language operating component is also composed of three types of information:
- Information about the functions or purposes which the act of communication has to fulfil (e.g. expression, description, argumentation);
- Information about the objects to which the act of communication will relate (e.g. whether the object of communication is to convey a neutral message, to report an affective state or to maintain or break social ties);
- Information about the means used to produce that act, such as the language skills needed, whether the communication is spontaneous or controlled, direct or indirect and whether it is effected either partly or wholly by means of nonverbal signs.

What can be understood from these two components is that the authors take the act of communication as their key concept. However, in a later work, Richterich and Chancerel (1987) present a broader understanding of the definition of needs within their model in order to make it more comprehensive. The model includes desires, requirements, motivation and methodology as observed not only by the learners but also by all those involved (e.g. language teachers, subject teachers and employers). Despite these improvements, it could be argued that the model of Richterich and Chancerel has some limitations. Gardner and Winslow (1983: 72) identify some of these limitations after applying the model in their study. First, some of the techniques listed for use (e.g. intelligence tests) would require specialists to design them. Secondly, some of the categories seem to be not very necessary and important (e.g. marital status, number of children, brothers and sisters, religion, occupation of mother and father). Thirdly, it would be difficult for those who are directly concerned with running language courses to have both sufficient time and the ability to perform the

procedures outlined by the model. Thus, it seems that the model would need a team of specialists to apply it.

The second well-known model is that proposed by Munby (1978), which has been seen as a watershed and a coming of age for ESP (Hutchinson and Waters, 1987; Braine, 2001), probably because it established needs as central to ESP course design (Kim, 2008: 11). McDonough (1984: 31) points out that the procedures in Munby's model 'are very detailed and [represent] an attempt to be both explicit and comprehensive'. Munby calls this set of procedures the Communication Needs Processor (CNP). The theoretical bases of the model, as West (1994: 2) argues, are contemporary views on the nature of communicative competence derived from Hymes (1971). Despite the fact that the model is heavily based on theoretical assumptions, its proposed techniques have been extensively used, modified and unmodified, in many parts of the world to set up language teaching and learning programmes (McDonough, 1984: 31).

In attempting to evaluate Munby's model, Hawkey (1980: 81) observes that it presupposes a language-training situation with fairly specific occupational or educational objectives involving a reasonably homogeneous group of learners. According to Hawkey, this helps course designers to produce two things:
- a detailed profile of what the learner needs to be able to do in English in the occupation or studies for which s/he is being trained; and
- a specification of the language skills, functions and forms required to carry out the communication described in the needs profile.

This involves answering some questions, such as: Who are the learners? Which study or occupational area will they need English for? Where and when will they need English? With whom? Handling which media and modes? Handling which dialect of English? At what level? To participate in which communicative activities? In what tone? Information collected to answer such questions can form a communicative needs profile, which is a prerequisite of the next stage: specifying the language skills required by the learners for their target communication (Hawkey, 1980).

McDonough (1984: 32) maintains that what characterizes Munby's model is the place of the CNP at the heart of the model: information about the learner – age, nationality, sex, mother tongue and so on – is fed into the CNP, which consists of a range of

categories. Hawkey (1980: 90) explains that this is in a two-sector model which might be represented in a diagram. The variables in the first sector reflect the socio-cultural orientation of the model involved in the CNP, identified by Richterich (1983) as objective needs which are foreseeable and generalisable. The headings under which information is collected in the first sector of the model are logically sequenced, rather than random. Munby's model excludes socio-political, logistical, administrative, psycho-pedagogic and methodological variables, because, as Munby explains, he is concerned with the dimension of course design, which is subsequent to syllabus specification. This suggests that Munby's ultimate purpose is to tell course designers how to construct a syllabus. Besides, Munby confirms that it is difficult to link a functional specification of a language with actual language use.

Notwithstanding its widespread use, Munby's model has been subject to criticism since its introduction. Hawkey (1980: 91), for example, sees it as a tool mainly for course designers which ignores those at the heart of the process, the learners. West (1994: 9) also criticizes the model for collecting data about the learners rather than from them. This implies that any determination of needs as being primarily concerned with course design or development will be inadequate if it does not consider the learners' own views and wishes. There has been a recent recognition that learners as reflective community members should participate in needs analysis alongside ESP specialists (Benesch, 2001; Belcher, 2006). Furthermore, Munby's model is essentially performance related, making reference to communicative activity and communicative event, which are categories of real-world language use rather than elements of a construct of communicative competence which covers the grammatical, discourse, sociolinguistic and strategic characteristics of communication (West, 1994: 3). Besides, as Boswood (1990: 56) observes, Munby 'fails to specify the non-linguistic, contextual factors affecting communicative competence'. It seems that Munby has adopted a performance repertoire which has often been questioned by others, such as Hutchinson and Waters (1987). Munby might be also criticized for not attempting to specify procedures for the actual collection of relevant data. The explanation would appear to be that Munby merely presents a useful set of headings under which data needs to be collected and in some cases lists inventories of information from which selections should be made; the method to be followed seems to be left to the users. This, in turn, according to Hawkey (1983), results in the

collection of a large amount of detailed information required for application of the model, which is difficult to obtain without a practical knowledge of the target environment. This environment will often not be accessible and collecting the data will in most cases be both expensive and time consuming, while the method of analysis is unsure.

Generally speaking, however, although his model seems to have some major defects, Jordan (1997: 24) observes that 'Munby's approach and model have been very influential: either developments have stemmed from his work, or as a result of reactions to it'. It is often seen as a landmark in NA studies, particularly those concerned with the design of ESP courses.

A very important point that should be taken into account is that needs are normally variable and can be reshaped by the way they are analyzed. That is, deciding the target situation plays an important role in NA. Furthermore, the requirements of linguistic competence for communication are important, but not sufficient. A link should exist in ESP course design between needs and the target community or subculture. Holme (1997: 10) stresses that needs are not about a description of a hypothetical future but about the students' relationship to the community with which they want to integrate, which may not have the students' L2 as its dominant language. Seeing needs from this angle, Holme recommends that NA should proceed from the conception of a course as an interaction among students and teachers in a context shaped by the target situation. This suggests the ongoing nature of NA, based on the understanding of what the target situation is. Consequently, NA in this sense, according to Holme, has two aspects:

- A continuous self-evaluative course that can relocate itself according to its goals and which finds methods that reflect this outlook;
- An understanding of the target situation as a subculture or social group that the student wishes to join.

Holme seems to interpret this by making a practical assumption that the ESP course will comprise more than just tasks; language practice is developed out of the target situation. In addition, these tasks are developed from the activities of the target situation community, while activating its discourse clarifies to students what they

have to learn in order to become full participants or members of this particular community.

In conclusion, it is noteworthy that while NA is seen as 'a defining feature of ESP' (Flowerdew and Peacock, 2001b: 178), the subject of NA, as Kandil (2008: 1) remarks, 'has not yet received sufficient attention from researchers and language teaching professionals in the Arab world'. A possible explanation for this may be that there is not yet sufficient awareness, either by institutions or by learners, of the importance of identifying needs and NA. One reason for such unawareness might be cultural. For example, in the KSA, in which the current study was undertaken, NA studies in language learning and teaching in general and in ESP in particular seem to be very rare.

2.5.4. APPROACHES TO NEEDS ANALYSIS

Scholars have classified diverse approaches to the analysis of learners' needs, including target situation analysis (TSA), learning situation analysis (LSA) and present situation analysis (PSA) (West, 1994; Mo, 2005; Hyland, 2006; Kim, 2006). TSA involves identifying the target situation and conducting a thorough analysis of the activities, tasks, linguistic features and knowledge requirements of that situation (West, 1994; Hyland, 2006, Basturkmen, 2010). This suggests that TSA is primarily concerned with the real communication needs directly related to the target situation, rather than learning needs. In order to bridge the gaps in TSA or to overcome its limitations, PSA could be used. PSA is concerned with establishing what state students are in at the beginning of their language course, by investigating their language proficiency, strengths and weaknesses (Robinson, 1991; Hyland, 2006). Jordan (1997: 24) points out that the sources of PSA data are students themselves, the language teaching establishment and the user institution (e.g. place of work). According to Robinson (1991: 9), the assumed difference between TSA and PSA is that the latter represents constraints on the former, which will have been carried out first. Finally, LSA necessitates exploring the learning situation to discover how students learn to do what they do with language (Hutchinson and Waters, 1987: 63). This suggests that LSA is usually concerned with identifying the preferred learning styles and strategies of students. NA in general is seen as a combination of TSA, PSA

and LSA; therefore, it is suggested that the three approaches can complement each other.

Dudley-Evans and St John (1998: 125) outline the concept of NA in ESP by listing the following types of information which must be gathered:

A. Professional information about the learners: the tasks and activities that they are/will be using English for, via **TSA** and **objective analysis**;

B. Personal information about the learners: factors which may affect the way they learn, such as previous learning experiences, cultural information, reasons for attending the course, expectations of it and attitudes to English, i.e. **wants**, **means** and **subjective needs**;

C. English language learning about the learners: what their current skills and language use are, via **PSA**, which allows the assessment of (D);

D. The learners' **lacks**, defined as the **gaps** between (C) and (A);

E. Language learning information: effective ways of learning the skills and language in (D), i.e. **learning needs**;

F. Professional communication information about (A): knowing how language and skills are used in the target situation, via **linguistic analysis**, **discourse analysis** and **genre analysis**;

G. What is wanted from the course;

H. Information about the environment in which the course will be run, via **means analysis** (Dudley-Evans and St John, 1998: 125).

The impression created here is that a deficient concept of needs might impede analysis, or probably render the outcomes insufficient and inapplicable. For instance, ignoring affective factors (e.g. motivation and attitudes towards the target language) might limit needs to the merely linguistic. Therefore, 'needs' could be regarded as an umbrella term to cover a range of concepts such as those outlined above (Richterich, 1983; Hutchinson and Waters, 1987; Hyland, 2006). West (1994: 3) suggests that this approach might reflect interesting differences in points of view and help the undertaking of different forms of NA.

In view of the above, NA is an essential process for collecting information about learners' needs and situations. No matter what method is used to collect the information, it seems that identifying needs in ESP has often been a crucial and central issue; every method aims to determine what the learners need, because needs

are often determining factors in course design. However, needs generally include not only the requirements of linguistic features of a target situation, but also communicative preparation and association with the target community; and NA is very much dependent on how these needs are perceived.

2.5.5. ESP NEEDS ANALYSIS PROCESS

Dudley-Evans and St John (1998: 126) emphasize that the way in which NA is approached and conducted differs according to the situation. Jasso-Aguilar (2005: 150) reminds us that 'in conducting an NA, it is necessary to examine the social context in which the actors live their lives'. This implies that there are some contextual factors which might have an influence on the way the NA is undertaken or the process in which it is done. It can be suggested, then, that while the significance of needs and NA in language learning in general and in ESP in particular cannot be ignored, the process in which NA is undertaken has an almost equal significance.

Jordan (1997: 23) presents the following list of steps for undertaking an NA in EAP, which could also be applicable to other types of ESP:

1. Identify the purpose of the analysis;
2. Delimit student sample;
3. Decide upon approaches;
4. Acknowledge constraints/limitations;
5. Select methods of collecting data;
6. Collect data;
7. Analyze and interpret results;
8. Determine objectives;
9. Implement decisions (i.e. decide upon syllabus, content, materials, methods, etc.);
10. Evaluate procedures and result.

It is significant that for Jordan the first step in carrying out an NA is to identify its purpose. Therefore, the reasons for analyzing learners' needs should be as clear and specific as those identified by Richards (2001: 52). For instance, when an NA of future healthcare professionals is carried out, as this study attempts to do, the purposes may be:

1. To determine to what extent the present ESP course helps them to improve their language skills (reading, listening, speaking, writing), grammar and vocabulary;

2. To identify language difficulties and problems encountered in their current place of learning English and in their future workplaces;

3. To determine to what extent the present ESP course adequately prepares them both for their studies and for their target careers;

4. To determine to what extent their needs are met by the present ESP course and its materials;

5. To determine the extent to which the English language needs assumed by their sponsors are actual needs;

6. To determine what language skills, activities and tasks will be required to enable them to function effectively in their academic discipline and future workplaces;

7. To identify their attitudes towards learning English and ESP.

Taking these purposes into consideration and following the ESP curriculum development model presented in Figure 2.1, the NA process of the current study starts by identifying its main purpose (what information to collect and why), its informants and data collection methods. Triangulation of informants and methods is of paramount importance in NA in order to have different viewpoints and data on each aspect of the ESP course and the needs (Jasso-Aguilar, 2005; Long, 2005c; Orr, 2005).

Once the purpose, informants and methods of the NA have been identified, the next step is the collection of the required data on target needs. Hyland (2006: 78) lists the most widely used procedures for collecting needs data: questionnaires, analysis of authentic spoken and written texts, observations, informal consultations with faculty members, learners and ESP teachers, and assessment results. However, as Richards (2001: 63) notes, it is important to make sure that only data which will be used is collected.

The next step concerns organizing, analyzing, interpreting and reporting the data collected. Before data collection, a decision has to be made on the statistical techniques that will be used in analyzing the quantitative data, and on the method(s) of qualitative data analysis. After the analysis and interpretation of the data, it is now

possible to make use of the analyzed data to produce a profile of the typical learning and target needs. While the findings from an NA are not absolute but relative (Dudley-Evans and St John, 1998: 126), 'needs will have to be prioritized because not all of them may be practical to address in a language program' and 'decisions will therefore have to be made concerning which of the needs are critical, which are important, and which are merely desirable' (Richards 2001: 65-66). Scrivener (2005: 73) suggests a range of options for making use of the data obtained from an NA. They are listed below in approximate (increasing) order of the extent to which account is taken of the data.

- Take no account of the NA data. Continue with the current course as if the data had not been collected.

- Review the data, but decide that the original course plan is likely to achieve something very close to the desired outcomes, so continue using the original plan.

- Continue with the course as before, but allow the data to influence small aspects of how to help or deal with individuals in class.

- Continue with the course as before but add a limited number of extra activities, lessons or variations to satisfy some stated needs.

- Replan the course, much as before, but aiming to cover the materials in less time (or drop elements) in order to add a large number of extra activities or lessons to satisfy some stated needs.

- Replan the course to incorporate substantial elements of the needs alongside relevant elements from the original plan.

- Put the original course plan to one side and base a new course plan entirely on the stated needs.

Given that NA is seen in ESP as the foundation on which all other decisions are or should be made (Belcher, 2006: 135) and that NA is the starting point for developing ESP courses (Richards, 2001: 33), the NA process presented above implies that the main and ultimate purpose of the NA process is to develop an existing ESP course which would better meet the students' needs. However, the course should be evaluated in order to find out to what extent these needs are met (see section 2.6 for more details).

2.5.6. A REVIEW OF NEEDS ANALYSIS RESEARCH STUDIES

To complete section 2.5 on ESP students' needs and their analysis, this subsection reviews some NA research studies carried out in various institutions around the world, within the field of EMP and other specialties.

Using an NA framework, Rattanapinyowong et al. (1988) investigated the English language academic needs of healthcare students at Mahidol University, Bangkok. Questionnaires were administered to 351 students of nursing and related fields. In addition, interviews were conducted with teachers in a number of departments of the university. The data collected were analyzed in order to identify the English language needs of the students. The study concluded that fewer academic needs were expressed than expected. Both the students and teachers stressed the need for English courses designed for specific healthcare professions.

Elkilic (1994) conducted a similar NA study, attempting to identify the English language needs of medical students at Selcuk University in Turkey. The participants were students, English language teachers and subject specialists; the method of data collection was via questionnaires. The findings indicated that students regarded reading as the most important skill and listening as the second most important for them. They stated that reading was important in order to be able to understand reports, magazines and scholarly journals, and to translate materials from English into Turkish.

Chia et al. (1999) tried to identify and describe the perceptions of medical college students and faculty members regarding the English language needs of the students. The setting of their NA study was Chung Shan Medical College in Taichung, Taiwan. Using the questionnaire technique, they sampled 349 medical students and 20 faculty members. The study focused on investigating the importance of English language use in students' studies and their target careers, as well as the basic English skills needed in a first-year English course. It was found that English language was perceived as important for students' academic studies and their future work. Besides, students expressed the need for a basic English language course at the first-year level, naming listening as the most important skill to improve. Both the students and staff also considered more than one year of English language study to be desirable.

More recently, Bosher and Smalkoski (2002) carried out an NA study in order to investigate why many of the learners of English as a second language studying nursing were not succeeding academically. Methods used for gathering data on the needs of the students were questionnaires, interviews and observation. The results showed that communicating with clients and work colleagues in the clinical setting was considered the greatest difficulty. The researchers developed a course, called Speaking and Listening in a Health-care Setting, to respond to what was identified as students' area of greatest difficulty. The course content was divided into four units: assertiveness skills, therapeutic communication, information-gathering techniques, and the role of culture in healthcare communication. Various methods and materials for developing healthcare communication skills were used to help the students to communicate effectively in the clinical settings.

At the College of Health, Education and Human Development at Clemson University, United States, Lepetit and Cichocki (2002) conducted an NA of 165 university students who were preparing to work as healthcare professionals. They first carried out a small number of interviews, using the information gathered to formulate a questionnaire, which they then administered to the students. They found that students attached greater importance to oral communicative skills (speaking, asking, telling stories, etc.) than to writing and gave greater weight to written communicative skills than to literature. Students also recognized the importance of learning language in an authentic context that provided opportunities for face-to-face contact with native speakers.

The above are some examples of NA studies conducted in the context of academic and professional ESP courses for students enrolled in health science programmes, whereas those considered next were conducted within ESP courses for students enrolled in programmes of a number of different specialties.

Using a questionnaire survey, Lombardo (1988) investigated the needs and attitudes towards learning English of 200 students in the School of Economics of an Italian university. A parallel questionnaire was also given to 51 non-language members of the teaching staff. The survey found that students were motivated to learn English in order to improve their chances of employment. The activities most needed to succeed in their field were understanding oral reports and reading professional materials. It

was also found that listening skills were the most important, followed by speaking, reading and writing. Both students and teachers viewed technical terminology as the greatest source of problem for students in reading in English.

Jafre-Bin-Zainol-Abidin (1992) attempted to identify the English language needs of science students enrolled in an English course for business purposes at the University of Malaysia. The researcher administered a questionnaire to the students and to personnel managers and employees of a number of companies in Malaysia. Reading was found to be the most important skill from the point of view of students, while listening and speaking were more important from the point of view of employees. It was recommended that university courses should consider students' needs, that reading skills should be given more emphasis in academic studies and that students should take part in identifying study texts.

Alagozlu (1994) investigated the English language needs of students at the Faculty of Medicine in Cumhuriyet University, Turkey. He interrogated three different sources, viz. students, teachers and administrators, by means of two data collection methods: questionnaire and interview. The results indicated that reading and translation were the language skills most needed by the students. Significant differences were also found among the perceptions of students, teachers and administrators regarding students' needs. In addition, it was found that most of the informants were dissatisfied, to some extent, with the current English language curriculum and that it did not fulfil the needs of the students.

Chan (2001) carried out a large-scale NA study to identify the English language needs of students of the Polytechnic University in Hong Kong. The objectives of the study were to determine students' perceptions of their needs and wants, to measure their ratings of their own competence in their academic and professional domains and to compare the extent to which their opinions matched those of their English language teachers. Using a questionnaire survey, Chan sampled 701 tertiary learners and 47 English language teachers at the university. The results showed that there was consistency of response between students and teachers. The activities perceived as the most important for academic studies were reading magazines and periodicals and speaking at seminars and meetings, while those seen as the most important for future professions were listening and speaking at conferences and listening on the telephone.

The study also found that a major concern for both students and teachers was improving the ability to communicate orally for academic and professional purposes.

Although the studies reviewed above are important and informative because they provide some indication of the language needs of non-native students, some of them seem to suffer from methodological problems in conducting NA. First, some utilized only one method of data collection, namely a questionnaire. Second, although they had a large number of participants, in most of the reported studies these fell into only two groups: students and teachers. A number of scholars (e.g. West, 1994; Brown, 1995; Witkin and Asltschuld, 1995; Gilabert, 2005; Long, 2005c; Kim, 2006) recommend using multiple methods and sources of information when investigating learners' needs in order to overcome the problem of identifying irrelevant needs.

In contrast to the above studies, the purpose of the current study was to identify both the target needs and learning needs of students and this was done by utilizing three different methods to collect data from seven different sources among the stakeholders involved (see Chapter Three for more details). It was believed that this involvement of multiple methods and stakeholders might help to provide a clearer picture of the situation under investigation. Until recently, the majority of NA studies focused on learners' views rather than those of domain experts (Gilabert, 2005: 182). Domain experts in this study were healthcare professionals working in large hospitals throughout the KSA. The suggestion was that they could provide useful information about their work-related needs, the activities they performed and the skills they used within their career domains. The study also elicited the views of foreign doctors communicating with these healthcare professionals, of hospital managers and of the officials involved in updating and revising the ESP curriculum, in order to better identify and define learning and target career needs.

While considerable numbers of research studies have been conducted into NA on many ESP courses in different parts of the world, very few NA studies have taken place in the Arab world; thus, as Kandil (2008: 7) observes, 'the Arab world is in need of extensive research [into] NA'. One of the purposes of the present study is to begin to fill this gap in the Arab world in general and in the Saudi healthcare context in particular.

Furthermore, since ESP courses based on analysis of learners' needs are said to be more motivating and thus educationally more effective (Bloor and Bloor, 1986; Basturkmen, 2006), it is important to establish whether such courses already in progress have actually addressed these needs (Hutchinson and Waters, 1987; Brown, 1989; Dudley-Evans and St John, 1998; Richards, 2001). This can be done through course evaluation, which determines whether the objectives of the course are achieved, the content and methodology are appropriate, the needs of the students are met and the participants in the course are satisfied. Martin and Lomperis (2002: 405) note that evaluation and needs analysis are bookends of the teaching process. Lynch (1996: 32) explains that NA is 'evaluation designed to examine the match between what is desired for the program versus the actual state of the program'.

The following section examines evaluation as a necessary tool for determining the appropriateness and effectiveness of the language course.

2.6. ESP COURSE EVALUATION

Before presenting the major theoretical approaches to language course evaluation, this section discusses differing views on defining course evaluation and relating it to research in general. It is hoped that this discussion and the review of evaluation approaches will inform the researcher's choice of the appropriate evaluation design and methodology, helping to develop an ESP course evaluation framework for the current study.

2.6.1. DEFINING COURSE EVALUATION

To begin with, there is a need to differentiate between 'assessment' and 'evaluation' in the language of course evaluation and research. On the face of it, these two terms seem to be close in meaning and they have been frequently used interchangeably in the field, although in fact they have distinct meanings. For instance, Popham (1975: 8) points out that evaluation 'consists of a formal assessment of the "worth" of educational phenomena'. Formal assessment suggests the use of only quantitative measurements (such as tests) (Lynch, 2003: 5), which, in state-of-the-art course evaluation practice, constitute only one means of information collection. According to

Streiff (1970: 365), measurement 'should be used to refer to quantitative descriptions of behavior, things or events; while evaluation has a broader scope, which includes measurement'. That is to say, the use of tests in evaluation studies is probable and often preferable but not necessarily inevitable. Bachman (1990: 24) agrees that 'not all evaluation involves either measurement or tests'.

In educational contexts, assessment is associated with students' language achievement and test performance (Lynch, 2003: 11). Nunan (1990: 27) notes that 'in language teaching, assessment refers to the processes for determining a learners' [sic] proficiency'. We assess the product of a language course or its students' gains by means of tests. However, as Guba and Lincoln (1981: 2) put it, tests can tell 'something about individuals but nothing about the programs and curricula by which these persons were taught'. Evaluation, on the other hand, is a broader concept which may include assessment. According to White et al. (1991: 176), evaluation is concerned with 'collecting evidence on and making judgments about a curriculum as a whole, including planning, design and implementing it'.

Evaluation plays a role in 'deciding whether a course needs to be modified or altered in any way so that objectives may be achieved more effectively. If certain learners are not achieving the goals and objectives set for a course, it is necessary to determine why this is so' (Nunan, 1988b: 118). This means that course evaluation looks not only into the effectiveness of the course, i.e. the extent of students' improvement in language ability (Fink, 1995: 2), or its 'worth' (Worthen and Sanders, 1973: 19), but also into the appropriateness of its content to its objectives as well as into the adequacy of its learning and teaching activities. Dudley-Evans and St John (1998: 129) add that 'evaluation will also show weaknesses or features that were just not suitable for the particular group of learners'. Therefore, course evaluation as an integral part of its development can be an effective tool to help identify the problem areas and shortcomings, if any.

Lynch (1996: 2) defines evaluation as 'the systematic attempt to gather information to make judgments or decisions. As such, evaluative information can be both qualitative and quantitative in form'. This definition seems too broad, however. Brown (1995: 218) defines course evaluation more precisely and concisely as 'the systematic collection and analysis of all relevant information necessary to promote the

improvement of a curriculum and assess its effectiveness within the context of the particular institutions involved'. A weakness of this definition is that it says nothing about those performing the evaluation and their audience. The assumption is that a comprehensive definition of course evaluation needs to take into consideration the following peculiarities: (a) types of information needed, (b) planned techniques for information collection and analysis, (c) potential purposes of evaluation, (d) specifications of evaluation context and (e) conductors and audiences of evaluation.

One is given to understand that the investigation of the effectiveness of a course necessities a product-oriented evaluation and the collection of both quantitative and qualitative data, whereas an investigation of its appropriateness calls for a process-oriented evaluation and quantitative/qualitative data collection. The appropriacy of a course is of overriding importance, especially in ESP, where the course is mainly about learners' needs and their fulfilment. When its content and methodology are appropriate to its stated objectives, which are supposed to be based on the stakeholders' needs, the whole course is said to be appropriate.

2.6.2. COURSE EVALUATION AND RESEARCH

Some researchers hesitate to consider course evaluation as research. For example, in distinguishing between evaluation and research, Glass and Worthen (1971: 150) define research as 'the activity aimed at obtaining generalizable knowledge by contriving and testing claims about relationships among variables or describing generalizable phenomena'. They argue that the external validity of course evaluation is not guaranteed. In other words, if 'all evaluation studies are case studies' (Stake, 1995: 95), one cannot generalize from their results. In arguing against the view of Glass and Worthen, Mackay et al. (1995: 315) point out that

> external validity is not a relevant criterion in programme evaluation, since the objective is not to arrive at generalizations applicable to other more or less similar programmes in other contexts, but to provide information about the operations of a particular programme which will allow its personnel to make informed decisions about change and improvement.

Nunan (1992) believes that external validity can be ignored in course evaluation, provided that internal validity and reliability are maintained. He advocates the thesis of 'continuity' between research and evaluation and concludes that course evaluation is research because it has the necessary characteristics, including research questions, data collection and data analysis. Thus, he accepts that 'evaluations, even of a single programme, are, in fact, research' (Nunan, 1992: 193)

2.6.3. APPROACHES TO COURSE EVALUATION

Approaches to language course evaluation are the preliminary theoretical plans or schemes upon which evaluation studies are based. According to Kiely and Rea-Dickins (2005: 59), language course evaluation 'has been influenced by the trends in general education evaluation'. A dichotomic classification of the approaches to language course evaluation is presented below.

2.6.3.1. EXPERIMENTAL VS. NATURALISTIC

To begin with, stemming from the so-called 'research paradigms war', there is a dichotomy between experimental and naturalistic evaluation designs (Lynch 1996; Oakley, 2000). While the former is concerned with the products of the course and employs quantitative methods, the latter focuses on the process and uses qualitative methods (Brown, 1989: 224). Brown (1989: 226) observes that 'a notable shift to process-oriented approaches began with the realization that meeting program goals and objectives was indeed important but that evaluation procedures could also be utilized to facilitate curriculum change and improvement'. This suggests that the two approaches are complementary.

2.6.3.2. FORMATIVE VS. SUMMATIVE

Language course evaluation can also be formative or summative (Robinson, 1991; Mackay, 1994; Dudley-Evans and St John, 1998; Flowerdew and Peacock, 2001b; Genesee, 2001; Richards, 2001). According to Richards (2001: 288), formative evaluation, on the one hand, is conducted 'to find out what is working well, and what

is not, and what problems need to be addressed', with the purpose of improving and developing the delivery of the course. ESP practitioners are likely to be concerned with this type of ongoing evaluation (Dudley-Evans and St John, 1998: 129). Summative evaluation, on the other hand, 'is concerned with determining the effectiveness of a program, its efficiency, and to some extent with its acceptability. It takes place after a program has been implemented' (Richards, 2001: 292).

According to Jordan (1997: 85), Dudley-Evans and St John (1998: 128) and Richards (2001: 296-297), both types of evaluation can be either qualitative, i.e. depending more on subjective judgment (e.g. interviews, observation) or quantitative, i.e. numerically expressed (e.g. questionnaires, test results). Jordan (1997: 37) points out that final evaluation or feedback in the form of questionnaires is a useful method of collecting data for needs analysis. It can be helpful in identifying the main features of the course that were liked and disliked, and this may provide some suggestions for improving the next course (Jordan, 1997).

Rea-Dickins and Germaine (1992: 26) affirm that formative evaluations 'are ongoing and monitor developments by identifying the strengths and weaknesses of all aspects of teaching and learning'. However, Lynch (2003: 10) maintains that in reality 'most evaluations represent a combination of formative and summative. If we are interested in judging the ultimate worth of a programme, we are usually open to explanations of why it is or is not working, and recommendations for improvement'. This implies that the two types of evaluation are seen as complementary rather than contradictory. Scriven (1997: 498) points out that 'formative evaluation, to a large extent, is best designed as summative evaluation rather than a holistic account'. Bennett (2003: 57) calls such a design of course evaluation 'a multi-method approach which contains both formative and summative dimensions, which draws on a range of research strategies and techniques, and which generates both qualitative and quantitative data'.

2.6.3.3. INTRINSIC VS. EXTRINSIC

A similar distinction is made in the course evaluation literature between intrinsically and extrinsically motivated evaluations (Hopkins, 1989; Weir and Roberts, 1994). Intrinsic evaluation is an inwardly-directed course appraisal motivated and carried out by participants from inside the course, thus participatory in nature, for developmental purposes. A good example of this type is the collaborative evaluation of Mackay et al.

(1995). In contrast, extrinsic evaluation, also known as bureaucratic evaluation (Mackay, 1994; Weir and Roberts, 1994), is usually imposed on the course, motivated and carried out by outsiders for purposes of accountability and accreditation.

2.6.3.4. WHOLISTIC VS. ANALYTIC

Hopkins (1989: 18) distinguishes between 'wholistic' and 'analytic' evaluations. In the former, the evaluators investigate the course in its entirety. That is, they look at the programme as a unit and investigate its constituents as they interact with one another in a holistic manner using a case study approach in order to produce an evaluation of the whole course. In an analytic evaluation, the evaluators are rather more concerned with specific key areas of the course, aiming to study how these affect or relate to one or more other key aspects of the course.

The above dichotomies, commonly found in the course evaluation literature, result in a diversity of evaluation models and frameworks. For example, summative evaluations and most extrinsic ones are quantitative and product-oriented in nature. They aim to assess the effectiveness and/or efficiency of a course and usually use one of the three major experimental models of evaluation, namely the 'true experimental', 'quasi-experimental' or 'pre-experimental' models, e.g. the Bangalore project evaluation (Beretta and Davies, 1985) and the Pennsylvanian project (Clark, 1969). Because of space constraints, these models will not be discussed here in detail; for thorough discussions of these and other experimental models, see Nunan (1992), Lynch (1996), Cohen, et al. (2007) and Creswell (2009).

2.6.4. ESP COURSE EVALUATION FRAMEWORK

Dudley-Evans and St John (1998: 128) observe that to evaluate everything is unrealistic and might be time-consuming. What seems to be required, therefore, is to establish the priorities, which Hutchinson and Waters (1987: 153) present clearly:

> The overall aim of the ESP course is to meet two main needs of the learners: their needs as language *learners*, and their needs as language *users*. It follows that the 'what' of ESP course evaluation is concerned with assessing the extent to which the course satisfies both kinds of needs. Thus, the enquiry should begin with questions such as:
> Is the course fulfilling the learners' language *learning* needs?
> Has the course fulfilled ⎫
>   ⎬ the learners' language *using* needs?
> Is the course fulfilling ⎭

The next question that needs to be addressed in ESP course evaluation is identifying the areas of need that are not being or have not been fulfilled. Once these problem areas are known, according to Hutchinson and Waters (1987: 153), the focus needs to be on identifying the reasons for them. If not identified and dealt with properly, such problems may continue to accumulate and eventually cause the failure of the course to meet its objectives.

For the purpose of this study, the researcher has developed a flexible evaluation framework to fit the evaluation context. This framework, I believe, suits the formative evaluation purposes of the study, which are to improve the quality of the HSC ESP course by empirically investigating the ongoing process (appropriateness), as well as its products (effectiveness), to diagnose the problematic areas and to suggest possible solutions. Therefore, the main purpose of the evaluation is the improvement of teaching and learning, by matching the needs of learners to the systems of teaching, to help those involved to share and become aware of each other's needs, perspectives and perceptions (Harris and Bell, 2003: 42).

The general evaluation framework of the current study was devised and derived from course evaluation models proposed by a number of scholars (Kennedy, 1985; McGinley, 1986; Henning, 1987; Sharp, 1990; Blue and Grundy, 1996; Lynch, 2003; Kiely and Rea-Dickins, 2005). In particular, it follows the model employed by Weir and Roberts (1994: 85) to evaluate the pre-sessional English course at the University

of Reading and the Performance Indicator model of Mackay et al. (1998: 118). In both of these cases, the authors list a number of evaluation foci and the methods they have used to evaluate them. For the purposes of the current ESP course evaluation, some of these evaluation focal points needed to be modified or eliminated, either because they did not apply to the course under study (e.g. the placement test and the self-access centre), or due to limits on funding, resources and/or time. The ultimate result of these modifications was a small-scale manageable evaluation framework developed for the particular context of this study.

The framework has five major components: curriculum organization and syllabus specifications, objectives, materials, teaching, and assessment procedures. Each component is broken down into a number of focal points. While each component has a very specific focus, these components are closely interrelated. It is suggested that the course objectives, syllabus, materials, teaching methodology and assessment procedures should be mutually compatible with each other. Therefore, the present evaluation attempts to identify any match or mismatch between these interrelated components. For example, comparing the teaching methodologies employed by teachers with the course objectives can indicate whether these methodologies are likely to lead to attainment of the objectives.

2.7. CHAPTER SUMMARY

This literature review has provided an overview of ESP by examining its definition, its distinctive features and types, with an account of curriculum development phases and learners' needs. It has also examined the concepts of NA and course evaluation, and approaches to these. The objective of this review was to provide a theoretical grounding for the design of the NA and course evaluation used in the current study. In other words, this review has informed the researcher's choice of the appropriate design and methodology, while helping to avoid the pitfalls of previous attempts, in order to determine the present and future language needs of HSCs students as well as evaluating their current ESP course.

In the following chapter, the research design and the major approaches adopted in this study will be thoroughly discussed.

CHAPTER THREE: METHODOLOGY AND RESEARCH DESIGN

This chapter introduces and explains the methodology and design followed to achieve the objectives of the study. It is divided into six main sections. The first restates the research purpose and questions, the second discusses the research paradigm which was employed and the third describes the study sample. The fourth section explains the research design, the methods used for the collection of data and the procedures followed in its analysis. The fifth discusses the trustworthiness of this study, the sixth clarifies the ethical issues raised and the chapter concludes with a brief summary.

3.1. RESEARCH PURPOSE AND QUESTIONS

The main aim of this study is to develop an ESP curriculum for HSC students based on needs analysis and course evaluation. The ESP curriculum development process starts with the needs analysis and course evaluation, and then uses the information to state the objectives, followed by the choice and organization of content, teaching, materials and assessment. It is suggested that this would promote their English proficiency in both their academic studies and target careers, enabling them to acquire the knowledge and skills necessary to do various tasks so that they can function as effective members of their academic and professional communities. This aim is formulated through the central research question: ***Does the current ESP course at the HSCs adequately prepare the students for their academic studies and for their target careers?***

This central research question is fractured into a number of subsidiary questions as follows:

1. To what extent are the four main skills required in the HSC students' academic studies?

2. To what extent are the four main skills required in the HSC students' target careers?

3. To what extent is the current ESP course at the HSCs appropriate and effective?

3.2. RESEARCH PARADIGM

Each research paradigm is suitable for particular aims and research questions (Cohen et al., 2007: 3). A paradigm is a set of basic beliefs through which researchers view and understand the world (Guba and Lincoln, 1994; Lynch, 2003; Richards, 2003; Creswell, 2009; Croker, 2009). Having identified the research aim and questions and reviewed the relevant literature, the next step was to decide which research paradigm was most suitable. This decision would help in choosing the methods of data collection, the procedures for analyzing and interpreting the collected data and procedures for selecting research participants, because each paradigm has its own ways of carrying out these processes.

Two research paradigms are commonly discussed in the literature: the interpretive and scientific paradigms (Scott and Usher, 1999; Esterberg, 2002; Henn et al., 2006). These came into existence as a result of competing views concerning social reality (Cohen et al., 2007: 7). Burrell and Morgan (1979: 1-2) identify four sets of assumptions conceptually underpinning social realties: ontological, epistemological, human nature and methodological assumptions.

The ontological assumptions concern the nature of reality and consider the question: Is it subjective and created by the individuals being studied, or is it objective and 'given out there' in the world? (Sikes, 2004; Cohen et al., 2007). If reality is viewed as subjective and constructed by the individuals who participate in the research, then researchers have to use qualitative approaches of inquiry which enable them to listen to the participants and to rely on their 'voices and interpretations' of this reality, whereas if it is viewed as objective, then it can be measured objectively and a quantitative kind of inquiry may be used to capture it (Creswell, 2009: 7-8).

The implication for the current study is that 'needs' do not of themselves have an objective reality but are arrived at by judgment, discussion and agreement (Brindley, 1989; Robinson, 1991; Richards, 2001). Richards (2001: 54) observes that what is established as a 'need' depends on judgment and reflects the values and interests of those making such a judgment. Hyland (2006: 79) affirms that needs are identified differently by different stakeholders (people involved in the course) such as teachers, students and administrators.

The epistemological assumptions concern the researcher's view of the nature of knowledge (Cohen et al., 2007: 7) and address questions such as: What is knowledge? How is it acquired? How do we know what we know? (Heigham and Croker, 2009: 312). Cohen et al. (2007: 7) explain that if the researcher views knowledge as being soft, subjective, personal and unique, s/he needs to be involved with the participants in order to enter into their particular feelings, perspectives, interpretations and meanings regarding the phenomenon in question, whereas if s/he views knowledge as being hard, real and objective, s/he must act as a distant observer and remain independent from those researched.

The human nature assumptions concern the relationship between human beings and their environment and consider the question: Are these separate entities, such that people mechanically respond to their environment and that knowledge external to them, or are these entities inseparable but interacting with each other? (Cohen et al., 2007: 8). Taking the former view, the researcher should focus on the phenomenon being investigated, neglecting the human impact on it, whereas if s/he views people as interacting and controlling their environment, s/he needs to consider them as individuals in order to understand that phenomenon (Cohen et al., 2007: 8).

Cohen et al. (2007: 8) argue that the three sets of assumptions identified above have great influence on the methodological assumptions, which concern the methods used to investigate and understand the phenomenon in question. They explain that those researchers who adopt an objectivist (positivist) approach to the social world and view it as being hard, real and external to the individual will select from different methods such as surveys and experiments, whereas those who adopt a more subjectivist (anti-positivist) approach and view the social world as being soft, personal and humanly created will choose from a different range of techniques such as participant observation.

From these four sets of assumptions emerges the distinction between quantitative and qualitative research (Cohen et al., 2007: 8). Creswell (2009: 6) maintains that the types of assumptions held by researchers will often lead them to adopt qualitative, quantitative or mixed approaches. While 'researchers are not all of the same mind in defining qualitative and quantitative methods' (Thomas, 2003: 2), it is broadly the

case that 'quantitative research involves collecting primarily numerical data and analyzing it using statistical methods, whereas qualitative research entails collecting primarily textual data and examining it using interpretive analysis' (Croker, 2009: 4-5). Qualitative and quantitative research methods differ mainly in their analytical objectives, the types of questions they pose, the types of data collection tools they employ, the forms of data they produce and the degree of flexibility built into research design (Mack et al., 2005: 2).

However, the quantitative-qualitative distinction is not always clear-cut. Richards (2005: 36) points out that 'qualitative and quantitative data do not inhabit different worlds. They are different ways of recording observations of the same world'. Therefore, quantitative and qualitative methods form a continuum and are not necessarily mutually exclusive (Dornyei, 2007: 25). This suggests that a combination of these types can be used in a given study. Such a combination of methods is often known as triangulation of data collection (Denzin, 1978; Mackey and Gass, 2005; Cohen et al., 2007; Davies, 2007; Creswell, 2009; Vanderstoep and Johnston, 2009).
The choice of an appropriate research methodology is not determined solely by the researcher's alignment to one specific research paradigm, since the nature of the topic under investigation and the research questions also influence this choice (Seliger and Shohamy, 1989; Silverman, 2000; Dornyei, 2007; Vanderstoep and Johnston, 2009). As Dornyei (2007: 307) puts it, 'research is not a philosophical exercise but an attempt to find answers to questions'. Accordingly, as Bryman (1992: 69) asserts, 'the research problem should guide the decision about whether to employ quantitative or qualitative research (and indeed which specific method of data collection should be used)'. This perspective in social research is called pragmatism (Creswell, 2009; Croker, 2009). It focuses on the research problem and 'opens the door to multiple methods, different worldviews, and different assumptions, as well as different forms of data collection and analysis' (Creswell, 2009: 10-11).
The pragmatic approach is advocated by Dornyei (2007: 307), who advises researchers to 'adopt a pragmatic approach and feel free to choose the research method that you think will work best in your inquiry'. Accordingly, it was believed that the nature of the current study called for the application of both quantitative and qualitative methods, given that the adoption of such methodological triangulation in NA and evaluation studies is strongly recommended by a number of researchers (e.g.

Robson, 1993; West, 1994; Brown, 1995; Witkin and Asltschuld, 1995; Richards, 2001; Gilabert, 2005; Jasso-Aguilar**,** 2005; Long, 2005c; Kim, 2006, Kinzley, 2006).

Triangulation refers to the process of 'using more than one methodology to address the same question to establish the validity and reliability of the data: for example, a quantitative survey combined with qualitative interviews' (Vanderstoep and Johnston, 2009: 179). For instance, Jasso-Aguilar (2005: 127) adopted a triangulated approach to data collection in her study to identify the language needs of hotel housekeepers and concluded that it could produce reliable and valid information about language needs. The present study utilizes semi-structured interviews and document analysis (qualitative methods) and a questionnaire (a quantitative method) in order to improve the reliability and validity of its findings.

This section has examined the considerations relative to the adoption of a research paradigm. The next considers the sample which was studied within this framework.

3.3. THE STUDY SAMPLE

The target population of this study comprised six groups: the current students, graduates and English language teachers of the Health Sciences Colleges, the course administrators, hospital managers and multinational English-speaking health professionals working in Saudi hospitals. The inspiration to choose this sixfold target population was drawn from a number of scholars (e.g. Robinson, 1991; Dudley-Evans and St John, 1998; Richards, 2001; Long, 2005c; Kim 2006), who stress the importance of employing multiple sources of information in identifying needs for ESP courses, 'because triangulation of sources offers an important means of validating findings' (Long, 2005c: 63).

Samples were duly chosen from each group by purposive random sampling, a basic mixed methods sampling strategy which 'involves taking a random sample of a small number of units from a much larger target population' (Teddlie and Yu, 2007: 90). The participating students and English language teachers were selected from the study population as follows. From the numerous HSCs, three colleges were selected. This selection was justified by the purpose of this research, which was not to compare the colleges, to document diversity or to capture the variation between them, but to collect in-depth information about the ESP course and language needs, since the system is one in which all HSCs run the same ESP course. The three colleges selected had the following features in common with the remaining ones:

- All colleges were sponsored and supervised by the Ministry of Health;

- All courses and curriculum materials were the same;

- All colleges had the same resources and facilities;

- Members of the teaching staff have similar qualifications;

- Although the colleges are located in different parts of the country, students in each represent almost all the regions of the KSA.

The samples of graduates (employees),[1] hospital managers and multinational English-speaking health professionals were selected from five major hospitals located in different regions of Saudi Arabia. The selection of these hospitals was dictated by the purpose of the study and the research questions. Since the aim was to investigate the language needs of health professionals and to determine whether the ESP course satisfied these needs, it was necessary to choose hospitals in which HSC graduates and English-speaking health professionals worked. A detailed description of the demographic characteristics of the interview and questionnaire participants and how they were selected is provided in sections 3.4.1.1.1 and 3.4.2.1.1 respectively.

3.4. RESEARCH DESIGN

This study adopted a mixed methods research design. 'Mixed methods research is a procedure for collecting, analyzing, and "mixing" quantitative and qualitative data at some stage of the research process within a single study in order to understand a research problem more completely' (Ivankova and Creswell, 2009: 156). The assumption is that the supplementary findings of a mixed methods study can produce a fuller picture of the topic or issues being investigated, expanding the scope and breadth of the study (Dornyei, 2007: 164). Richards (2001: 297) advocates this strategy in investigating ESP courses, arguing that 'both quantitative and qualitative approaches to collecting information are needed because they serve different purposes and can be used to complement each other'. Given the complex reality of language needs, the objective knowledge and conclusions about the language course and the limitations associated with any research method, it was believed that using mixed methods would strengthen the study design.

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[1] Throughout the study, the terms 'graduates' and 'employees' refer to the same population.

Therefore, the research design had both qualitative and quantitative components. The goal of the former was to explore the English language needs of ESP learners (in both their academic studies and target careers) and the appropriateness and effectiveness of the ESP course from the perspective of its stakeholders, through document analysis and individual semi-structured interviews with forty participants. The goal of the quantitative component was to examine these needs and obtain an overall picture of them, as well as to evaluate the course, in order to maximize the reliability and vividness of the whole picture, thus aiding diagnosis and treatment, through a questionnaire survey administered to 246 participants.

In the following, a more detailed discussion of the two research approaches is presented. Its structure is consistent with the sequential nature of the mixed methods employed in this study. As Long (2005c: 64) asserts, in an NA study, 'methods must [...] be carefully sequenced [...] e.g. more "open" procedures, like unstructured interviews, before more "closed" ones, like questionnaires'.

3.4.1. QUALITATIVE RESEARCH

While there is general agreement as to the main features and principles of qualitative research, it is difficult to define qualitative research clearly (Dornyei, 2007: 35). However, a working definition is provided by Dornyei (2007: 24): 'qualitative research involves data collection procedures that result primarily in open-ended, non-numerical data which is then analysed primarily by non-statistical methods'. This suggests that qualitative research tends to be interpretive rather than statistical (Mackey and Gass, 2005: 2) and descriptive rather than predictive (Vanderstoep and Johnston, 2009: 167).

Douglas (2000: 256) adds that qualitative research focuses more on the individual than on groups. This means that 'qualitative research mostly focuses on understanding the particular and the distinctive, and does not necessarily seek or claim to generalize findings to other contexts' (Croker, 2009: 9). The goal of qualitative research is to provide a deeper understanding of the subjective personal viewpoints, experiences and feelings of participants (Strauss and Corbin, 1990; Dornyei, 2007; Croker, 2009). The focus of qualitative research is on understanding processes going on in natural settings such as classrooms and workplaces (Croker, 2009: 5). For example, natural

93

interaction with students in their college settings would yield deeper explanations from their perspectives of their English learning process, their attitudes and motivations, what difficulties they faced in learning English, what specifically they needed to improve their English and how the pedagogical setting influenced their learning. Likewise, natural interaction with graduates in their workplaces would provide in-depth and detailed first-hand accounts of their linguistic problems and more importantly of their English language needs.

Dornyei (2007: 39-40) lists some core features and characteristics of qualitative research: it is naturalistic (occurring in natural settings), exploratory (exploring new ideas and insights) and useful for making sense of highly complex conditions; it allows depth, profundity and thoroughness. Lynch (2003: 26) observes that the qualitative research approach is 'very thorough in terms of the amount of information that it gathers about programme process and the experiences of the programme participants'.

The qualitative research approach taken in the present study sought to investigate and understand the personal practices, attitudes, experiences and perceptions of the participants concerning the HSC ESP course, its students' present and future language needs and the importance of English in the HSCs and in the healthcare community. To investigate these questions, the two main qualitative data collection methods used were interviews and document analysis.

These qualitative research methods were used in order to come closer to the participants and to elicit their feelings, justifications, perceptions and interpretations regarding the research problem. It was believed that this would help to capture the varied perceptions of the participants without imposing a predetermined standpoint, as might be the case if quantitative research methods were used. These methods were also used for the purposes of triangulation and validation. Ivankova and Creswell (2009: 143) observe that triangulation can result in substantiated and well-validated findings, because 'it offsets the weaknesses of one method with the strengths of another'. That is, the data obtained from the qualitative methods were used to supplement and help to interpret those obtained from the quantitative ones.

The abovementioned features and characteristics of qualitative research do not mean that it is without limitations. A common criticism, for example, has to do with the issue of subjectivity, i.e. the quality of a researcher that affects his/her research (Peshkin, 1988: 17). Dornyei (2007: 54) admits that qualitative research is inherently

subjective. Patton (2002: 50) explains that 'critics of qualitative inquiry have charged that the approach is too subjective, in large part because the researcher is the instrument of both data collection and data interpretation and because a qualitative strategy includes having personal contact with and getting close to the people and situation under study'. This suggests that it may be easy for the personal prejudices and attitudes of the researcher to bias the data. While 'this is a major concern in qualitative research', it can be handled by triangulation (Croker, 2009: 11). Indeed, some scholars view subjectivity as virtuous and argue that it can contribute to the effectiveness of research (Peshkin, 1988: 18). That is, the personality and interests of the researcher may shape and enrich the research, rather than always necessarily biasing its results.

Qualitative research is also criticized for its lack of generalizability, its small samples and the time needed to analyse the data (Richards, 2001; Dornyei, 2007). Despite these criticisms, qualitative research is used in the present study because of the belief that it could illuminate curriculum development by providing an in-depth analysis of the feelings, thoughts and experiences of those involved in teaching and learning ESP for healthcare students. It would also allow the researcher to discover aspects of the ESP course of which he was not previously aware and which needed to be included in the overall research design (Lynch, 2003: 26).

A variety of research methods can be used to collect qualitative data, including observation, interviews and document analysis (Thomas, 2003; Davies, 2007; Dornyei, 2007; Croker, 2009; Vanderstoep and Johnston, 2009). The remaining subsections of section 3.4.1 detail the two used here: interviews and document analysis.

3.4.1.1. INTERVIEWS

One of the main methods of collecting qualitative data for the present study was to interview the research participants. Seen as 'the gold standard of qualitative research' (Silverman, 2000: 51), the interview is described as a 'conversation with a purpose' (Burgess, 1984: 102) that 'offers different ways of exploring people's experience and views' and allows the researcher to probe beneath the surface of issues in order to see them from each participant's perspective (Richards, 2009: 183).

The interview can serve different functions, such as that of a main instrument for collecting data to address the research objectives and that of a validating instrument,

verifying and confirming data collected by other research methods (Cohen et al., 2007: 351). In the current study interviews were used for three purposes: (1) to collect data in order to answer the research questions, (2) to interpret, clarify and validate data collected by other research instruments used (document analysis and questionnaires) and (3) to help in designing and formulating the questionnaire. That is, interviews were used in the current study as a complementary instrument to explore in greater detail some related aspects and topics which could not be explored by means of the questionnaire survey. These included language needs, the problems and difficulties students had in learning ESP, their motivations and attitudes towards learning ESP and the linguistic problems employees faced while communicating in English in the workplace.

Because interviews are often useful for finding out which topics, issues and questions should be asked or focused on in questionnaires (Brown, 2001; Richards, 2001; Brown and Rodgers, 2002), one of the essential reasons for using interviews in this study was to collect information on the ESP course and students' language needs in both their academic studies and target careers, in order to help formulate and design the questionnaires. In other words, interviews were used to help the researcher to formulate some items to be included, to work out what questions to ask and to understand the key issues. The premise was that the researcher risked being limited by his preconceptions or overlooking some types of target needs or learning needs that were unlikely to be discovered or classified unless he asked those involved.

Interviews are a common needs analysis and evaluation tool (McDonough, 1984; Hutchinson and Waters, 1987; Robinson, 1991; West, 1994; Jordan, 1997; McDonough and McDonough, 1997; Dudley-Evans and St John, 1998; Graves, 2000; Brown, 2001; Flowerdew and Peacock, 2001b; Richards, 2001; Bosher and Smalkoski, 2002; Lynch, 2003; Kiely and Rea-Dickins, 2005; Scrivener, 2005; Hadley, 2006; Hyland, 2006; Basturkmen, 2010). According to Long (2005c: 37), the 'use of interviews is widely reported in NAs in ESP' (e.g. Mackay, 1978; Brindley, 1984; Bosher and Smalkoski, 2002; Miyake and Tremarco, 2005; Cowling, 2007; Oanh, 2007; Kaewpet, 2009; Lambert, 2010). They can provide in-depth information about learners' needs (Lepetit and Cichocki, 2002; Kim, 2006). Interviews have also been used in recent and earlier evaluative studies (e.g. Celani et al., 1988; Lynch, 1992; Williams and Burden, 1994; Ridley, 2006; Pilcher, 2006; Dooey, 2010).

The decision to make use of interviews in some parts of this research study was taken after careful consideration of their advantages, especially when compared with other data collection methods, although, as Richards (2009: 195) notes, 'all data collection methods have their drawbacks and interviews are no exception'. For example, in the present study, the interview was used instead of observation, i.e. 'the conscious noticing and detailed examination of participants' behavior in a naturalistic setting' (Richards, 2009: 166), because 'we cannot observe everything. We cannot observe feelings, thoughts, and intentions. We cannot observe behaviors that took place at some previous points in time' and 'we have to ask people questions about these things' (Patton, 2002: 341). This suggests that there is a need for a more appropriate research method such as interviews, which allow the researcher to ask the participants involved about their perceptions, feelings, attitudes and needs.

Individual face-to-face semi-structured interviews were considered more suitable for the present study than either the unstructured or structured alternatives. Cohen et al. (2007: 354) explain that the major distinction among these three types lies in the degree of structure in the process of the interview, which reflects its purpose. O'Leary (2005: 164) explains that semi-structured interviews 'start with some defined question plan, but pursue a [relatively] conversational style of interview'. The interviewer follows a guide or schedule, which involves identifying in advance a key list of questions, topics and sub-topics to help maintain a systematic coverage of the topic and guide the interview itself (Drever, 2003; Dornyei, 2007; Richards, 2009). The interview schedule can help the interviewer in five main ways: (a) by ensuring that the topic is covered and nothing important is forgotten; (b) by providing a template for the opening statement; (c) by offering suitable wording of questions; (d) by listing some probe questions to follow if needed; and (e) by offering a list of comments (Dornyei, 2007: 137). The present study made use of the interview schedule to serve as a guide to the researcher and to enable the participants to provide profitable and fruitful answers (see section 3.4.1.1.2).

The semi-structured interview was chosen to be used in the present study because of its advantages over the other two types, and because it is commonly employed in NAs in ESP (Long, 2005c; Kim, 2006). It was used to collect some information about the participants' perceptions, views, needs, attitudes, likes and dislikes regarding the ESP course. It was also used to gather some information about the difficulties in learning, teaching and using English within the healthcare context in Saudi Arabia. Finally, it

was useful in helping the researcher to gain a sense of what types of needs, skills and activities should be addressed in the questionnaires.

3.4.1.1.1. THE INTERVIEW SAMPLE

Long (2005c: 37) points out that interviewing several different stakeholders (insiders and outsiders) in NA provides reliable and accurate results. If a successful course evaluation is desired, there would always be a need 'to include multiple perspectives that speak to all stakeholders' (Ross, 2003: 4). Therefore, in selecting the sample for the semi-structured interviews in this study, multiple sources of information were sought from both insiders and outsiders.

Purposive sampling was applied to select forty interviewees whose knowledge and experience were considered to be typical with regard to the research purpose. These participants were divided into six groups as follows: six current ESP students, seven graduates, six ESP teachers, five administrators, five hospital managers and eleven English-speaking health professionals (five physicians and six health assistants) working with the graduates.

Students
The student sample was composed of two adult males from each of the three colleges, ranging in age from 19 to 22 years. All were Saudi native speakers of Arabic and had studied English as an FL during their six years of intermediate and secondary education. They had enrolled in the ESP course at three HSCs in 2007/2008.

Graduates
The graduate sample was composed of seven adult males ranging in age from 24 to 30 years. All were native speakers of Arabic and had studied English as an FL during their intermediate and secondary schooling and at their respective HSCs (9 and half years in all). Three had graduated from the HSCs over three years earlier, two had graduated over one year earlier, one had graduated over 6 years earlier and one had graduated over 6 months earlier. Three were nurses, two radiology technicians, one a pharmacist and one a dental assistant. They worked in five government-owned hospitals.

ESP Teachers
The sample of ESP teachers comprised two males from each of the three colleges, ranging in age from 35 to 55 years. Four were native speakers of Arabic from three different Arab countries and two were English speakers from South Asia (the Indian

subcontinent). They had from two to 27 years of teaching experience, at the HSCs and in other institutions.

ESP Course Administrators
The sample of ESP course administrators was composed of five males ranging in age from 40 to 55 years. Their selection was automatically, since they were the only people in their position in the HSCs. Four were Saudis and one was from another Arab country. Two were members of the HSC Development Committee in the GDHCI at the Ministry of Health.

Hospital Managers
The sample of hospital managers consisted of five Saudi males ranging in age from 45 to 55 years, all of whom had been in post for more than four years. Each worked at a different governmental hospital: three in the Eastern province and two in the Middle province.

Physicians
All five physicians in the sample were non-Saudis, ranging in age from 35 to 50, three being male and two female. One was Pakistani, one Bengali, one German and two Indian. They had a number of different L1s but all were speakers of English. All had worked in Saudi hospitals with HSC graduates for more than five years, and one was from each of the five governmental hospitals.

Health Assistants
There were six non-Saudi health assistants in the sample, ranging in age from 30 to 45 years. Four were female and two male. Two were Filipino, two were Indian, one was Thai and one was Bengali. Again, they differed in L1 background but all were speakers of English. All had worked in Saudi hospitals for more than seven years with HSC graduates. Four were experienced professional nurses, one was a pharmacist and one a radiology technician. Each worked at a different governmental hospital.

3.4.1.1.2. INTERVIEW PREPARATION AND SCHEDULE DESIGN
'It is important to prepare thoroughly for interviews. This involves piloting, preparing a realistic schedule, and paying attention to practical details such as timing and location' (Richards, 2009: 169). After equipping myself with knowledge of the background to the main topic through the literature review and examining some relevant documents, and after attending some courses concerning interviewing for research, I started to decide on my overall aim in the interviews and think about the

key questions and topics that needed to be covered. Then, while designing the interview schedules, I tried to group the questions under the relevant topics and organize these topics to produce a natural developing line of investigation (Richards, 2009: 187). In constructing the interview schedules, I followed some important guidelines for wording the questions suggested by a number of scholars (Drever, 2003; Cohen et al., 2007; Dornyei, 2007).

After drafting the six preliminary interview schedules, I asked two experienced PhD holders (one an expert in research methods and the other in EMP) to look at them and comment on them. Invaluable feedback on both wording and structure was obtained and a considerable number of amendments were made in consequence until the final drafts of the interview schedules were ready for piloting.

3.4.1.1.3. PILOTING THE INTERVIEWS

A pilot study can be defined as 'a small-scale trial of the proposed procedures, materials and methods' (Mackey and Gass, 2005: 43). It allows the proposed instruments and procedures for data collection and analysis to be tried and tested, to ensure that they are workable and produce useful data, so that refinements and modifications can be made if necessary before the actual study begins (Dornyei, 2007; Murray, 2009). It can also help to save time and energy by revealing potential problems that can be addressed before the main study is carried out (Mackey and Gass, 2005; Murray, 2009).

Therefore, to avoid time-consuming problems arising during the interview process and to remove any potential ambiguity from both the structure and content of the schedules, the interviews were piloted with one representative from each group. The main purpose here was to produce valid schedules which would enable the researcher to collect some of the required data. In addition, it was a good opportunity to try out the analysis procedures that would be used in the main study.

The interviews were piloted in July 2007. At the beginning of each, I spent some time explaining the aim of the study and the purpose of the interview, then asked the interviewee to comment on whether the interview schedule made sense and whether it worked. Generally speaking, feedback from the stakeholders was helpful in including or eliminating particular questions, and any unclear or ambiguous items were refined.

These pilot interviews gave me good insight into and training in interviewing and related skills such as using a tape recorder, taking notes, approaching interviewees, developing a good relationship with them and following leads through prompts and

probes. This helped to arrange the questions in the schedules. While transcribing the pilot interviews, I felt that there needed to be more probing and prompting questions to clarify points with the interviewees and follow up important issues and ideas. Moreover, I decided not to take notes during any interview that was recorded, because it was unnecessary and potentially disrupting (McDonough and McDonough, 1997; Dornyei, 2007; Richards, 2009). Interviews, as Dudley-Evans and St John (1998: 135) assert, 'should be recorded so that the interviewer can really listen rather than take lots of notes'. However, it was decided to take notes if a participant was prepared to be interviewed but did not want to be recorded.

This piloting process also gave me a chance to measure the time needed to conduct each interview and allowed me to collect some important documents such as the framework of the first year programme, the English language teaching plan that the teachers followed in their classes, workplace texts and other related documents.

The next step was the actual event of conducting the interviews, as explained below.

3.4.1.1.4. CONDUCTING THE INTERVIEWS

The refined and revised interview schedules[1] (see Appendix A) were sent to the participants beforehand to give them a chance to prepare and this may have helped to prevent potential misunderstanding of questions and consequently to reduce the chance of unprofitable responses. The aim was not to test the participants' memory of facts but rather to give them a clear picture of the purpose of the interviews and the nature of the questions so that they could reflect on them and that the interviews would yield more profitable information.

A letter was attached to each interview schedule explaining to the participant the purpose of the study in general and the purpose, scope and nature of the interview in particular. A brief summary of what would happen to the interview data and a confidentiality and anonymity statement were also provided in the letter. The participant was assured that the information s/he would provide would be used only for research purposes and that s/he could withdraw at any time. The letter also estimated the duration of the interview (35-45 minutes), explained the purpose of taking notes or using a tape recorder and sought the interviewee's permission to do so.

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[1] Each of the six groups (students, graduates, language teachers, administrators, hospital managers, English-speaking physicians and health assistants) had its own interview schedule. See Appendix A1-6.

The letter also notified participants that the researcher would telephone them within five days to ask if they were interested in taking part in the study.

Prior to commencing the interviews themselves, I had to try to find an appropriate and comfortable place to conduct them, because as Richards (2009: 189) observes, 'some places are likely to influence the sort of responses'. In an attempt to reduce any chance of interference or discomfort in the interviews, I asked each participant by telephone to suggest a convenient place and time with which s/he would be comfortable.

All forty interviews were conducted one-to-one, which 'involves a meeting between one researcher and one informant' (Denscombe, 2005: 166). All were conducted by the researcher over a period of about four weeks. While twenty-seven interviews were conducted in Arabic (the native language of twenty-three Saudis and four ESP teachers), thirteen were conducted in English with the English-speaking participants. Each took between thirty and forty-five minutes, depending on the amount of detail each interviewee was ready to provide.

Interviews with students and ESP teachers were conducted at their respective colleges. Four students preferred to be interviewed in the English language lab, which had sound insulation, while two chose the library study room. The ESP teachers, as they all suggested, were interviewed in their offices. The graduates, physicians and health assistants were all interviewed at their workplaces, i.e. hospitals. The ESP course administrators and hospital managers were interviewed in their offices.

Before each interview, I arrived at the location in good time in order to prepare for the interview and to test any equipment used. As noted above, a tape recorder was used where possible, which helped me to listen carefully to the interviewee and to provide a reference for future analysis. While some interviewees may be fazed or made nervous by the presence of a tape-recorder, many people forget it once the interview starts (May, 2001: 138). I also observed that many interviewees were quite happy to be audio-recorded because they felt that their voices were important and worthwhile and that there was someone who was interested in hearing them and sharing their personal thoughts, feelings and experiences.

Prior to each interview session, I explained the reason for the interview and the purpose of the study to the interviewee and reassured her/him that what s/he would say would be confidential and that s/he would remain anonymous. I then sought to create a relaxed and friendly atmosphere in which the interviewee would be

sufficiently comfortable to talk freely and be able to offer fruitful responses. I also tried to establish a high degree of rapport with each interviewee, rather than launching directly into the first question. I asked each interviewee who had agreed to be audio-recorded whether s/he was happy for me to switch on the recorder. If so, then the interview started and s/he was thanked. All of the interviewees agreed to be audio-recorded, with the exception of two physicians, who allowed me to take notes.

During the interviews, I avoided expressing my personal opinions or showing by facial expressions, gestures, intonation or any other subtle cues what I thought, so as not to influence the responses. Also, when formulating the interview questions, I avoided leading questions, i.e. those that indicate particular answers to the interviewees (Brown, 2009: 207), in order to make it less likely that interviewees would give me answers that they thought I wanted to hear and not those which they believed to be right. I also avoided prestige questions, i.e. those that the interviewees would be likely to answer in a certain way to make themselves look better (Brown, 2009: 207). In short, I tried to be an independent and neutral academic researcher whose aim was to allow the collected data to determine the outcome and to ensure that my own views did not influence those expressed by the interviewees.

The sequencing of questions and topics in the interviews, as Richards (2009: 188) suggests, moved from the general to the more specific. The key questions and topics were often placed in the middle of the interviews because the interviewees might be nervous at the beginning and bored or tired by the end (Mackey and Gass, 2005: 175). While following the interview schedule, I also used both clarifying and exploratory probes (Davies, 2007: 110) in order 'to go further and to increase the richness and depth of the responses' (Dornyei, 2007: 138).

I ended each interview by giving the interviewee a chance to comment or add anything. On completing each interview session, I also allowed the interviewee to express her/his impression of the process and the content of the interview. This methodological feedback was important, because it could help uncover any problems so as to address them and improve the process of interviewing before continuing with other interviewees. I also expressed my great appreciation and respect to each interviewee for her/his worthwhile participation and effort, before repeating the assurances of confidentially and anonymity and informing the interviewee that s/he had the full right to request a copy of the transcript and recording of the interview in

case s/he wanted to review and amend the transcript. Only one (an ESP teacher) asked for his interview recording, which he received within a week.

After leaving the site of each interview session, I immediately made notes of any new emergent points or questions and areas to be explored in the next interviews. This could have guided additional data collection (Richards, 2009: 188).

3.4.1.1.5. ANALYSIS OF INTERVIEW DATA

'The overriding objective of analysis is to produce an intelligible, coherent and valid account' (Dey, 1993: 52). To achieve this, the process of analysing the interview data had three stages: preparation, analysis and summary (Drever, 2003: 60).

The preparation stage aimed to 'make the material manageable, while at the same time retaining as much of the original information as possible and avoiding any distortion' (Drever, 2003: 60). Thus, the first task was to transform the recordings of the interviews into textual form (Dornyei, 2007: 246). This crucial transcription process was time-consuming (Cohen et al., 2007; Davies, 2007; Dornyei, 2007; Richards, 2009), but it had the advantage of allowing me to get to know the data thoroughly (Dornyei, 2007: 246).

I transcribed the audio-recorded interviews verbatim and made them available in tangible forms in order to make the task of going through them easy. All interviews conducted in Arabic were transcribed and translated into English, the translated transcriptions being verified by a bilingual expert. Those interviews conducted in English were directly transcribed. The transcription process included all unfinished sentences, phrases, expressions and pauses.

The next stage, the analysis, comprised two steps: pre-coding and coding (Dornyei, 2007: 250). While pre-coding involves reading the transcripts and reflecting on them in order to look for key ideas and issues related to the research questions, 'coding involves highlighting extracts of the transcribed data and labelling these in a way that they can be easily identified, retrieved, or grouped' (Dornyei, 2007: 250). Therefore, in this phase, the task was to read each transcript and break it down into small chunks, each containing a unit of meaning, in order to classify them.

These chunks (short passages uttered by an interviewee embodying a specific idea or concept) were carefully read in order to assign key themes or categories to them. It was 'a process of funneling the data into relevant categories' in order 'to make

comparisons between cases much more effectively' (Dey, 1993: 42). The classification of the data into different themes or categories was guided by the objectives of this study and the research questions as well as the evaluation framework (see Table 2.3). The literature reviewed in chapter two also helped in the classification. While this might be seen as imposing a predetermined classification which would risk distorting the data in order to make them fit (Drever, 2003: 68), I was also flexible and alert to new themes emerging from the data.

The final stage of the analysis process involved summarizing, making a synthesis of the results of the previous stages and drawing conclusions in order to answer the research questions.[1] Results of other analyses, of questionnaires and documents, were brought in at this phase in order to validate and triangulate the results.

3.4.1.2. DOCUMENTATION

When designing this research, I found it very helpful to obtain some of the required data from the range of documents available in both the HSCs and the hospitals. This is because documents 'may sometimes speak louder than a response to an interview question, or tell us about something we were not in a position to observe' (Robson, 1993: 187). Documents also often form part of a broader research design and they can be triangulated with other forms of data such as those of semi-structured interviews for the purpose of cross-checking validity (Pole and Lampard, 2002: 152).

The term 'document' can be broadly defined as 'any object which has been shaped or manufactured by human activity' (Pole and Lampard, 2002: 151). This object can take the form of written language such as books, letters and web pages, or it can be spoken, such as audio or video recordings (Robson, 1993; Pole and Lampard, 2002). In studies of schools and colleges, documents might include written curricula, course outlines and other such literature (Robson, 1993: 274).

Pole and Lampard (2002: 152) point out that documents can provide researchers, at an early stage of their research process, with insight into a topic or a setting, can stimulate theorizing and can contribute to helpful aspects of the research. This implies

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[1] It is to be noted that in order to allow the respondents' voices to emerge clearly, direct quotations from the interviews are presented as appropriate.

that documents can play a role in broadening researchers' horizons in terms of the topic being investigated. In this study, before designing the interview schedules and questionnaires, I first collected and examined a number of relevant documents in order to identify and understand some of the key issues to be addressed in the interview questions and the questionnaire items. Relevant documents were also collected throughout the research process.

Document analysis was employed in the present study as an ancillary data collection method. As Patton (1987: 90) and Lynch (1996: 139) suggest, it enabled the researcher to acquire basic information concerning the processes of the ESP course, its stated objectives, content and methodology, thus facilitating the identification of some issues that would be pursued in the interviews and questionnaires. The documents analysed included the ESP course description and curriculum, statements of aims, objectives and syllabus, course textbooks, tests, final grades, reports of ESP meetings and letters from and to the course administrators. These documents are a 'natural' form of evaluation data (Weiss, 1972: 54). There may seem to be more than necessary, but as Richards (2001: 297) suggests, 'the more documentation that is available about a course, the easier it is to arrive at decisions about it'.

I also collected and analyzed some relevant documents in the Saudi hospitals whose staff participated, in order to identify the key linguistic patterns (features, skills, tasks) that were used in the target situation of the HSCs students. The content of some workplace written texts was also examined to see to what extent it was reflected in the current ESP curriculum in general and in the textbooks in particular. In gathering needs data, Hyland (2006: 78) declares that 'collecting and analyzing authentic texts [is] now regarded as a key source of information about target situations'. Long (2005c: 42) also points out that using documents in needs analysis 'can provide a more direct glimpse of what happens in a target domain'. Therefore, hospital documents such as medical reports and different kinds of forms were collected and examined to identify the skills and knowledge associated with them. They were representative inasmuch as the same documents were produced and used in all hospitals sponsored and controlled by the Ministry of Health in Saudi Arabia.

While they are seen as a valuable source of data, documents are nonetheless likely to be unrepresentative and biased because they are shaped by the setting in which they are produced (Robson, 1993; Pole and Lampard, 2002). Pole and Lampard (2002: 157) also observe that 'documents lack authenticity if they are not what they implicitly or explicitly claim to be'. All the documents collected within the ESP course and the hospitals were selected for the authenticity and truthfulness of the information which they provided, in that they were not produced for the present study. When designing this research, I found it very helpful to obtain some of the required data from the range of documents available in both the HSCs and the hospitals. This is because documents 'may sometimes speak louder than a response to an interview question, or tell us about something we were not in a position to observe' (Robson, 1993: 187). Documents also often form part of a broader research design and they can be triangulated with other forms of data such as those of semi-structured interviews for the purpose of cross-checking validity (Pole and Lampard, 2002: 152).

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3.4.2. QUANTITATIVE RESEARCH

Quantitative scientific research entails 'data collection procedures that result primarily in numerical data which is then analysed primarily by statistical methods' (Dornyei, 2007: 24). These procedures are developed in order to increase the likelihood that the data so collected will be unbiased, reliable and relevant to the research questions (Davies, 2007:10). This suggests that quantitative research seeks to answer questions

in an objective way. Indeed, McDonough and McDonough (1997: 49) indicate that 'traditional numerical designs are good on objectivity, reliability, feasibility and replicability'.

Dornyei (2007: 34) lists some of the characteristic features of quantitative research, which tends to be 'systematic, rigorous, focused, and tightly controlled, involving precise measurement and producing reliable and replicable data that is generalizable to other contexts'. McDonough and McDonough (1997: 49) explain that the aim of quantitative research is 'to make generalizations, and find evidence from the particular sample studied to the population of people at large'. This implies that generalizability is an important factor which researchers often suppose to constitute one of the necessary purposes of their quantitative research. Unlike qualitative researchers, who focus on the 'meaning in the particular', quantitative researchers follow a 'meaning in the general' approach (Dornyei, 2007: 27).

In the context of social studies, quantitative research has been criticized as 'overly simplistic, decontextualised, reductionist in terms of its generalisations, and failing to capture the meanings that actors attach to their lives and circumstances' (Brannen, 2005: 7). Nonetheless, even if such shortcomings apply, this does not necessarily mean the complete abandonment of quantitative research. Rather, such problems can and should be overcome by reinforcing and complementing it with a qualitative component. McDonough and McDonough (1997: 71) point out that 'there is no necessity for research to use only one method. In fact, there are good reasons to incorporate several techniques in data-gathering', thus improving both credibility and plausibility of interpretation.

A typical strategy of inquiry associated with quantitative research is the survey (Brown, 2001; Cohen et al., 2007; Dornyei, 2007; Creswell, 2009). 'Survey research provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population' (Creswell, 2009: 12). While survey data can be gathered by other methods such as structured interviews, the main method of data collection in surveys is the questionnaire (Dornyei, 2007: 101). The

present study made use of questionnaires to collect both quantitative and qualitative data.

3.4.2.1. QUESTIONNAIRES

While it is difficult to provide a precise definition (Dornyei, 2007: 102), questionnaires can be defined as 'any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers' (Brown, 2001: 6). Questionnaires allow second language researchers to gather a variety of types of information concerning learners' beliefs about learning, their motivations to learn and their attitudes and reactions to learning, to classroom activities and to instruction (Mackey and Gass, 2005: 93), as well as data on language use and communication difficulties (Richards, 2001: 60).

Compared with interviews, questionnaires have the advantages of flexibility and brevity of timing, since respondents can 'fill out a questionnaire in their own time, at their own pace, and fit it into their schedule' (Brown, 2001: 77). When completing a questionnaire, people are also usually free from the stress and anxiety commonly associated with face-to-face interviews. According to Cohen et al. (2007: 333), 'lack of face-to-face contact between the researcher and the respondents in a questionnaire might facilitate responses to sensitive materials'.

However, there are some pitfalls associated with the use of the questionnaire as a research tool. One typical problem is that questionnaire items must be sufficiently simple to be understood by the respondents (Dornyei, 2007: 115); thus, badly designed questionnaires may yield superficial, imprecise and unreliable data. Another problem is that while it is frequently assumed that researchers can control bias by using questionnaires (Mackey and Gass, 2005: 96), it is possible that bias can creep into them in terms of what questions are put and how they are formulated. This underpins the need to conduct interviews as a preliminary stage in designing the questionnaire, in order to work out what questions to ask and to formulate the items to be included in the questionnaire (Richards, 2001; Brown and Rodgers, 2002). This was considered in the present research, as discussed below (see section 3.4.2.1.2).

Vandermeeren (2005: 166) asserts that questionnaires offer access to respondents' real perceptions of language needs. They can also be used to measures respondents' attitudes and interests (Dornyei, 2007: 102). Therefore, questionnaires were used in this study mainly to investigate students' English language needs in their academic studies and target careers, as well as their attitudes towards the appropriateness and effectiveness of the current HSC ESP course. Specifically, the questionnaires were utilized to measure the participants' satisfaction with the course in terms of language needs and to highlight areas where students felt that their needs were not being met. Questionnaires are among the most widely used instruments in NA and evaluation studies (McKillip, 1998; Flowerdew and Peacock, 2001b; Brown, 2001; Boone et al., 2002; Brown and Rodgers, 2002; Dornyei, 2003; Lynch, 2003; McConnell, 2003; Hadley, 2006). As Long (2005c: 64) points out, 'questionnaire surveys undoubtedly constitute the most over-used and over-rated approach to NA at present'. A number of NA studies in ESP have utilized questionnaires to collect data (e.g. Jones, 1991; Taillefer, 2007; Lehtonen and Karjalainen, 2008; Mazdayasna and Tahririan, 2008; Elisha-Primo et al., 2010). They have also been used in evaluative studies (e.g. Celani et al., 1988; Alderson and Scott, 1992; Williams and Burden, 1994; Atherton, 2006; Martala, 2006; Ridley, 2006).

Two types of questionnaire item are usually identified: open and closed ended (Mackey and Gass, 2005; Cohen et al., 2007; Dornyei, 2007; Brown, 2009). A closed-ended item requires respondents to choose an answer from a limited selection determined by the researcher beforehand, whereas open-ended questions allow respondents to answer in their own words by writing in a blank space (Mackey and Gass, 2005; Dornyei, 2007; Brown, 2009). While both types have some disadvantages, Brown (2009: 201) observes that 'many questionnaires contain both types, and they are usually seen as being complementary'. Both types were used in this study, because it was believed that they would serve different useful purposes.

3.4.2.1.1. THE QUESTIONNAIRE SAMPLE

Questionnaire data were obtained from three main sources: current ESP students, graduates and ESP teachers. It was intended that a comparison of the three groups

would allow identification of both similarities and differences among their needs.[1] While 'there are no hard and fast rules in setting up the optimal sample size' (Dornyei, 2007: 99), a total of 246 participants completed questionnaires. The selection of these participants was made using purposive random sampling procedures.

The first group was composed of 120 first-year students following the ESP courses at three HSCs. All were Saudi males, native speakers of Arabic, whose ages ranged from 19 to 23 years. They had all studied English as an FL at intermediate and secondary schools and at the HSC (nine and a half years in total). Their ESP course ran for a year, divided into two semesters. It was decided to include this group as one of the main sources because they had some experience of the ESP course and thus the information they provided was 'grounded in experience' (Graves, 2000: 114).

The second group was composed of 106 adult graduates of HSCs, ranging in age from 24 to 30 years. All were native speakers of Arabic and had studied English as an FL during their intermediate and secondary schooling and at HSCs, for nine and a half years. Again, their ESP courses had lasted a year, divided into two semesters. They were selected from the five governmental hospitals in which they currently worked as health professionals with different areas of specialisation, as is clear from Table 3.2. Their work experience ranged from 6 months to more than 6 years.

Table 3.2: Distribution of the graduate sample by specialization

Area of Specialization	No. of Participants	Percentage
Nursing	16	15%
Laboratory	14	13.20%
Pharmacy	13	12.26%
Health Administration	12	11.32%
Dentistry	13	12.26%
Nutrition	11	10.37%
Public Health	13	12.26%
Radiology	14	13.20%
Total	106	100%

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[1] In a recent study, Lee et al. (2007: 9) concluded that different stakeholder groups should be included in needs analysis.

It was assumed that such participants, through their practical experience, would present an objective assessment of some of the ESP students' needs. They had been working for a considerable period of time, interacting daily with their English-speaking colleagues and employers in contexts where English was supposed to be important to the completion of some tasks. The suggestion was that they would be mature enough to determine the work-related language needs of ESP students and that they would be unlikely to feel a need to overestimate their capabilities or to misunderstand the practical need for English within the healthcare domain. They also had experience as ESP learners during their time at the HSCs. Therefore, it seemed that the information they provided would be useful and justifiably included.

The third group within the questionnaire sample comprised 20 male ESP teachers, ranging in age from 35 to 55 years. Nine of them were native speakers of Arabic from Jordan, Palestine, Sudan and Syria, while eleven were English speakers from India, Pakistan, Bangladesh, Nigeria and Kenya. They all had long teaching experience, both at the HSCs (from 2 to 27 years) and in other institutions. Their selection was motivated by the fact that they were always in touch with students and could determine their needs by assessing and evaluating their abilities in using English to read and write different kinds of discourse or texts, both academic and professional. They would also be likely to notice the difficulties that students faced while learning ESP. It was suggested that these teachers were in a position to provide important information about their students' ESP learning needs and language needs in both their academic studies and target careers.

It is very difficult in normal circumstances to gain access to teachers on subject courses, because they have duties other than teaching which they perform outside their colleges, so it was considered impractical to seek to administer questionnaires to this population, let alone to arrange interviews with them.

3.4.2.1.2. DEVELOPING AND PILOTING THE QUESTIONNAIRE

'The developing and piloting of a questionnaire is a stepwise process' (Dornyei, 2007: 112). Before writing the first versions for this study, the researcher drew ideas and inspiration from two sources. The first was the qualitative data gathered from the semi-structured interviews and the document analysis. The purpose of this logically

prior endeavour was to obtain a better idea of the ESP learners' needs in order to classify and list them in the questionnaires instead of designing them according to a preconceived classification of those needs. The second source was published NA and course evaluation questionnaires (e.g. Hutchinson and Waters, 1987; Nunan, 1992; Weir and Roberts, 1994; Ferris and Tagg, 1996; Jordan, 1997; Basturkmen, 1998; Dudley-Evans and St John, 1998; Chia et al., 1999; Graves, 2000; Brown, 2001; Richards, 2001; Bosher and Smalkoski, 2002; Lepetit and Cichocki, 2002; Kavaliauskiene and Uzpaliene, 2003; Brecht and Rivers, 2005; Gilabert, 2005; Jasso-Aguilar, 2005; Miyake and Tremarco, 2005; Atherton, 2006; Taillefer, 2007). Guidelines on how to design a questionnaire suggested by some scholars were also consulted (e.g. Robson, 1993; Dornyei, 2003; Cohen et al., 2007).

Early in September 2007, the researcher drafted three preliminary questionnaires (one each for students, graduates and teachers) and asked a colleague and two experienced PhD holders (one specialising in research methods and the other in EMP) to go through the items and to comment on the design of the questionnaires and their suitability for ESP NA purposes. Very useful feedback was obtained on both wording and format. A considerable number of changes and modifications were made in consequence, until the near-final versions of the questionnaires were ready for piloting.

The main aim of the piloting stage was to increase the practicability, reliability and validity of the questionnaires (Cohen et al., 2007: 341). The piloting stage was also essential to ensure that the questionnaires covered all aspects required to answer the research questions. In addition, it was helpful in assessing the clarity, readability and comprehensibility of the items so that any errors or ambiguities could be corrected. It was also important to determine how long respondents would require to complete them. Finally, piloting provided a good opportunity to try out the statistical and analytical procedures that would be used in the main study.

Mackey and Gass (2005: 96) advise that 'questionnaires should be administered in learners' native language'. Therefore, before distributing the students' and graduates' pilot questionnaires, the English versions were translated into Arabic, using the researcher's own ability in Arabic as his native language. The two Arabic versions were then examined by an associate professor in Arabic language and literature at

Qassim University, before the Arabic versions were translated back into English by the researcher in order to ensure that the content of the original English versions was preserved. Some changes were suggested, such as rewording some items, correcting a few grammatical mistakes and simplifying some questions to ensure that the participants could understand them fully.

Official permission next had to be sought from the Ministry of Health in order to distribute the questionnaires. Copies of the three versions and a letter explaining the nature of the study and asking for permission to access and approach the participants were sent to the Ministry of Health, where they were examined by the Academic and Training Affairs Committee. Approval was granted after ten days and communicated by the Committee to the dean of a large HSC and the manager of a hospital in Riyadh, which served as the sites of the pilot studies in October 2007. The college was visited twice, to survey five ESP teachers and then five ESP students. In the case of the hospital, five former students of the same HSC who had graduated at least three years earlier and were now employed as healthcare assistants were invited to participate in the pilot study. All fifteen respondents were chosen randomly.

A feedback sheet was included with the pilot questionnaires, in order to elicit written comments on unclear or problematic questions. The sheet contained the following questions:

1- Is the aim of the questionnaire understandable and clear?

   Yes ( ) Slightly ( )   No ( )

2- Are the instructions of the questionnaire clear?

   Yes ( )   Slightly ( )   No ( )

3- Is the way of answering the questions easy for you?

   Yes ( ) Slightly ( )   No ( )

4- If you have identified any ambiguous questions please write their numbers below.

The participants were asked on the last page of the questionnaire to provide their comments and suggestions.

The response of the three groups to the pilot study was very good. The time spent answering the questionnaire was 20-25 minutes, as expected. The results indicated that some changes needed to be made. For example, some items were found to be trivial and unnecessary or unlikely to yield any significant responses, such as on age and level of education. Some other items were deleted, reworded or replaced by new ones to make them clearer. On the feedback sheet, 80% of the respondents indicated that the aim, content and way of answering were understandable and clear to them; 85% said that the wording and instructions were clear and easy to understand; 5% described the questionnaire as being too long.

Generally speaking, the pilot study was very helpful in assessing the clarity of the questionnaire items, so that any errors and ambiguous instructions were corrected or modified.[1] It gave the researcher useful training in how to approach participants and administer the questionnaires. It also facilitated an assessment of time needed for conducting the questionnaires, it provided a good opportunity to collect some important documents and it allowed the researcher to try out techniques of analysis of the questionnaire data in order to uncover any potential problems. This helped to screen out any items that had not worked or to exclude irrelevant ones.

3.4.2.1.3. CONTENT AND FORMAT OF THE FINAL QUESTIONNAIRE

There were three versions of the final questionnaire, one for students (Appendix B1) one for graduates (Appendix B2) and one for ESP teachers (Appendix B3). The teachers' questionnaire was in English, while others were written in English and then translated into Arabic (the native language of their respondents), in order to avoid any misinterpretation of the items and to make it easier and less time-consuming for the respondents, especially those who might have low English proficiency, thus helping to ensure valid responses.

The questionnaires were accompanied by a cover letter seeking consent for participation. This appealed to the participants to take part in the study by explaining

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[1] It is to be noted that the piloted questionnaires were also examined by the researcher's first and second supervisors, who provided invaluable feedback on both wording and format.

that their participation was highly important and useful, and requesting them to give honest answers. The letter also described the purpose of the study, stated that there were no right or wrong answers, assured confidentiality and anonymity, and expressed gratitude and respect. It contained the researcher's name, mobile number and email address.

A combination of question types was used in the questionnaires. The students' and graduates' versions consisted of 15 questions, 12 closed and 3 open-ended. The closed items were of two types: three checklist questions and nine Likert-scale questions (see Appendixes B1 & B2). The ESP teachers' questionnaire also consisted of 12 closed and 3 open-ended questions. The closed items comprised one fill-in question, two checklist questions and nine Likert-scale questions (see Appendix B3).

Most questions were identical for the three groups in order to facilitate the comparison of responses. In order to avoid the tendency of some participants to choose the middle option rather than declaring a definite position, an even number of options (4-point scale) was used (Brown, 2001; Lynch, 2003). This was also an attempt to avoid the 'don't know' option, because 'many people do not like to admit their ignorance' (Davies, 2007: 73).

The closed questions sought to elicit the respondents' reasons for studying English, their attitudes towards the ESP course and its components, their levels of proficiency in English skills and students' language needs in terms of both their academic studies and their target careers. It included a list of skills which were extracted from descriptions in the ESP course curriculum. On the final page of the questionnaire there were two main specific open-ended questions. The first asked respondents to describe any problems or difficulties they faced in learning/teaching ESP, while the second asked about those they faced when using English inside or outside the college. The third was the most open, inviting respondents to add any comment they would like to make on any aspect of the ESP course. These three open-ended questions were intended to elicit some qualitative data.

3.4.2.1.4. ADMINISTERING THE QUESTIONNAIRES

A total of 320 copies of the questionnaire were distributed: 20 to ESP teachers and 150 each to students and graduates. All incomplete, unreliable and late responses were excluded from the study, leaving 246 valid responses, as detailed in Table 3.3.

Table 3.3: Number of questionnaires administered and considered

Sample	Number of copies administered	Number of copies considered	Response rate
Students	150	120	80%
Graduates	150	106	70.6%
ESP Teachers	20	20	100%
Total	320	246	76.8%

Specific procedures were used in administering the questionnaires to each group. First, the questionnaire was anonymously administered to 150 ESP students towards the end of the second semester. This was a suitable time of year because the students were asked to reflect on something they had already done and to base their responses and comments on concrete experiences. It was also appropriate, especially for the teaching staff, because it was towards the end of the academic year, when most were usually concluding their syllabuses or allowing revision. Permission to administer the questionnaires to the students during classes was obtained from the dean of each college. Before administering the questionnaires, the researcher asked the head of the First Year Programme at each college to introduce him to the students in each class and to encourage them to participate in the study. Here, I must acknowledge the effort and support of the teaching staff and the heads of department, who were very helpful and cooperative in encouraging the students to complete the questionnaires as truthfully as possible. All of the students' questionnaires were completed by the students themselves in the presence of the researcher, enabling them to enquire about anything vague or ambiguous, thus minimizing randomness in their responses.

The respondents were first greeted and briefed about the general background, the purpose of the study and the potential significance of its results. This was followed by an explanation of the content of the questionnaire, how to answer the different items and the expected time to complete it (20-25 minutes). The researcher reassured the

respondents of confidentiality and anonymity, explained that there were no right or wrong answers and that their views were important, stressed that they could withdraw from answering the questionnaires at any time and expressed his deepest thanks for their patience and cooperation. They were gently encouraged to provide as much data as possible. They were also repeatedly reminded to answer all of the questionnaire items. A total of 150 questionnaires were administered (100% response rate). Of these, 30 were disregarded as incomplete, leaving 120 valid responses.

The teacher's version was next administered anonymously to 20 respondents towards the end of the second semester. The researcher spent some time with each ESP teacher to ask him to participate in the study, explaining the purpose of the study and emphasizing the potential importance of its outcomes for teaching and learning ESP in the HSCs as a whole. He then assured them of confidentially and anonymity and that their opinions were valued and their participation totally voluntary. They were given the researcher's mobile number and email address in case they had any queries or uncertainties about the questionnaires items. They were asked to kindly return their questionnaires within two weeks. It took the researcher more than 10 days to collect all 20 completed questionnaires (100% response rate).

Finally, the graduates' questionnaire was anonymously administered to 150 healthcare employees. The approval letter obtained from the Academic and Training Affairs Committee in the Ministry of Health was sent to the managers of the five selected hospitals which employed them. The researcher met each hospital manager individually to explain the nature of the study and to discuss the procedures for administering the questionnaires to the employees. He was then asked to contact the research centre at each hospital to facilitate contact with the respondents. The centre then provided him with official letters to each department at the hospital, whose heads introduced him to their employees and encouraged them to participate in the study. In fact, these heads of department helped the researcher to become acquainted with the respondents, to whom he clarified the purpose of the study, stressing its importance to the healthcare profession as a whole. The respondents were assured of confidentially and were informed that the deadline for returning their questionnaires was three weeks from the receipt date. The researcher made follow-up visits to each hospital to ensure a high response rate. Of the 150 questionnaires administered to employees, 117

were returned (78% response rate), 11 of these being excluded as incomplete, leaving 106 valid responses.

3.4.2.1.5. ANALYSIS OF QUESTIONNAIRE DATA

The responses to closed questionnaire items were analysed statistically using the Statistical Package for the Social Sciences (SPSS) software, which is commonly used in applied linguistics and education research (Dornyei, 2007: 198). Therefore, the quantitative questionnaire data were coded into SPSS, then descriptive and inferential statistics were conducted. Descriptive statistics included the means, percentages and frequencies of the closed responses. Such statistics can help to summarize quantitative findings by 'describing the general tendencies in the data and the overall spread of the scores' (Dornyei, 2007: 213). They also formed the basis of the inferential statistics employed in this study.

The main concern of inferential statistics is the testing of statistical significance, which indicates whether the findings are generalizable to the population at large (Dornyei, 2007: 210). In this study, inferential statistical procedures were used to ascertain any significant differences among the three groups (students, teachers and graduates) regarding their perceptions of English language needs and their attitudes towards the ESP course and its content. This was done by employing the Kruskal-Wallis (K-W) test, which is used to compare three or more independent groups (Field, 2005; Mackey and Gass, 2005; Pallant, 2005; Dornyei, 2007). Here, the K-W test was used to identify any discrepancies in perceptions and attitudes among the groups[1]. This test was used because the type of data collected was non-parametric. 'Non-parametric data are those which make no assumptions about the population' (Cohen et al., 2007: 502). In this study, the questionnaire data were considered non-parametric for a number of reasons. First, they were measured on categorical and ordinal scales (Pallant, 2005: 286). Secondly, the participating groups were not equivalent in number: 120 students, 106 graduates and 20 ESP teachers. Finally, the data did not

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[1] Ferris (1998) used the K-W test in her language needs analysis to assess the degree of agreement between the students and their instructors. In conducting course evaluation, Cohen et al. (2007: 553) also recommend using the the K-W test to determine any significant difference between the groups on a rating scale.

have a normal distribution.[1] In other words, they came neither from a normally distributed population nor from populations with the same variance.

Field (2005: 548) explains that the K-W test is based on ranked data. The scores are ordered from lowest to highest regardless of the group to which each score belongs. The lowest value is ranked 1, the next lowest 2 and so on. After the data have been ranked, the scores are collected back into their groups, then the ranks of each group are summed. The mean rank scores for each group are compared to determine whether there is any significant difference. It can be concluded that there is a statistically significant difference between the groups if the probability value (p-value) in the K-W test is less than 0.05.

The K-W test does not enable the researcher to find out where exactly the differences lie between the groups (Cohen et al., 2007: 555). Therefore, a post-hoc test could be performed in order to see where the significant difference exactly lies. One post-hoc test for the K-W test is the multiple Mann-Whitney test, but some kind of adjustment is needed (Field, 2005: 550). In this study, the alpha level was changed to 0.05 divided by 3 (number of tests performed) = 0.016. This means that instead of setting the p-value to 0.05, it was set to 0.016 (larger than that is not statistically significant), in order to reduce the Type 1 error rate.

However, as Cohen et al. (2007: 520) note, statistical significance on its own is seen as an unacceptable index of effect, because it is dependent on sample size. That is, very small differences between groups may reach statistical significance with large sample sizes (Pallant, 2005; Dornyei, 2007). Therefore, in order to assess the magnitude of the findings, it was necessary to perform some measure of effect size (ES) (Pallant, 2005; Dornyei, 2007). The ES was calculated by dividing the Z score (how far a data point was from the mean) by the square root of the sample number (Field, 2005: 32). If the result was close to zero, the effect was small (0–0.3=small effect; 0.3–0.6=medium effect; 0.6 and above=large effect).

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[1] The normality of the distribution of the scores was assessed by conducting the Kolmogorov-Smirnov statistic and by examining the actual shape of the distribution that could be seen in the histograms (Pallant, 2005: 57-58).

The data collected by the open-ended questionnaire items were mainly qualitative and hence were analysed using the same procedures as for the interview data (section 3.5.1.). This is because, as Brown (2001: 212) notes, the data obtained from open-ended questionnaire items resemble what people say in response to interview questions. The qualitative data obtained from these open questions were mainly used to supplement, validate or illuminate the interview data and the quantitative questionnaire data.

3.5. RELIABILITY, VALIDITY AND TRUSTWORTHINESS

Generally speaking, reliability is defined as the degree of consistency of the study's results and validity as the degree to which a research instrument measures what it is supposed to measure (Brown and Rodgers, 2002; Dornyei, 2007). Because the present study made use of instruments from both qualitative and quantitative paradigms, each of which has its own perspective on these issues, it seems necessary to address the issue of validity and reliability from both. In the quantitative paradigm, reliability can be seen as 'the extent to which our measurement instruments and procedures produce consistent results in a given population in different circumstances' (Dornyei, 2007: 50), whereas validity can be defined as the extent to which the results can be accurately interpreted and effectively generalized (Brown and Rodgers, 2002: 240).

There are different ways to measure the reliability of a questionnaire (Mackey and Gass, 2005, Dornyei, 2007). A statistical test (Cronbach's alpha) can be applied when the number of possible responses is more than two (Mackey and Gass, 2005: 130), as in the self-report questionnaires of the current study. Therefore, this study used Cronbach's alpha to measure the degree to which the closed items in each version of the questionnaire were related. The results are presented in Table 3.4. Cronbach's alpha has a maximum value of 1 and a minimum of 0; values closer to 1 indicate a strong relationship between the items of the questionnaire (Dornyei, 2007; Vanderstoep and Johnston, 2009).

Table 3.4: Reliability results for each version of the questionnaire

Version	Sample	No. of Items	Reliability (Cronbach's alpha)
1	Students	121	.947
2	Graduates	122	.921
3	ESP teachers	110	.776

These three high values indicate that the three versions of the questionnaire were reliable.

In the qualitative paradigm, many researchers deny the relevance of the concepts of reliability and validity. In their place, they have proposed several alternative concepts such as 'trustworthiness', which comprises four aspects: credibility, transferability, dependability and conformability (Brown and Rodgers, 2002; Dornyei, 2007). Dornyei (2007: 57) points out that because of their corresponding quantitative counterparts, these four concepts are described as 'parallel criteria':

- Credibility: the truth value of the study (the qualitative counterpart of internal validity);

- Transferability: the applicability of the findings to other contexts (the qualitative counterpart of external validity);

- Dependability: the consistency of the findings (the qualitative counterpart of reliability);

- Confirmability: the neutrality of the findings (the qualitative counterpart of external objectivity).

In this study, trustworthiness was ensured by a number of factors, one of which was the researcher's prolonged engagement with the researched context (Dornyei, 2007; Rallis and Rossman, 2009), as he had worked for more than three years in colleges of the kind where the study was set and visited them several times throughout the course of the study. This, as well as having good relationship with the participants and being familiar with the language and culture of most of them, enabled him to collect accurate in-depth data which ensured the trustworthiness of the study.

The most important procedure for establishing and ensuring trustworthiness, however, was triangulation, i.e. using multiple data collection and analysis methods or multiple participant samples (Brown and Rodgers, 2002; Dornyei, 2007; Rallis and Rossman, 2009). The value of triangulation lies in its capacity to maximize the possibility of obtaining rich, in-depth information, to limit bias in the findings and to cross-validate them (Brown, 2001; 228). Three key forms of triangulation were applied here. The researcher collected the required data from a range of sources by approaching different people including current students, ESP graduates, language teachers, course administrators, managers of hospitals, physicians and other health professionals, who provided different viewpoints from which to observe the phenomena in question. As Norris (2008: 68) notes, it is through the inclusion of the perspectives of these people that objectivity can be sought in course evaluation.

A range of methods (interviews, document analysis and questionnaires) was also utilized in order to gather in-depth information about the phenomena. For example, students' perceptions of their English language needs were elicited and studied quantitatively through questionnaires and qualitatively through semi-structured interviews with students, graduates and teachers. This allowed the questionnaire findings to be checked against those resulting from the interviews. The study also applied triangulation in location, which entails collecting the same types of data and using the same methods with the same sources at several different sites (Freeman, 1998: 97). Three different HSCs and five hospitals were visited when collecting the data.

Another important factor in increasing the validity and reliability of this study was piloting the questionnaires and interviews on a sample of people who were similar to the target sample of the main study, to check the ability of these methods to gather the required data and to check questions for clarity and ambiguity (Dornyei, 2007: 75). One of the most common ways to ensure the trustworthiness of a study is simply to refer the instrument(s) to some colleagues who are experts in the field (Dornyei, 2007; Rallis and Rossman, 2009). In this study, both the questionnaires and the interview schedules were referred to two PhD holders, experts in Educational Research Methods and EMP respectively. The questionnaires and the interview schedules were modified and developed in the light of their helpful and useful feedback.

3.6. ETHICAL ISSUES

Important ethical issues are involved in any social research, including that into education, which deals with the beliefs, values and lives of people (Dornyei, 2007: 63). These issues may arise at any stage of the research process, including the collection, analysis and interpretation of the data and publication of the research findings (McDonough and McDonough, 1997: 67). Therefore, the researcher was meticulous about following certain codes of ethics and avoiding harm to any of the participants in any way. Considerable care was taken in relation to the following ethical issues noted by a number of scholars (McDonough and McDonough, 1997; Pole and Lampard, 2002; Cohen et al., 2007; Dornyei, 2007; Rallis and Rossman, 2009):

- It was important to obtain informed consent from the participants prior to the commencement of the study. The purpose of the research and the nature of the study were clearly explained to the participants. They were assured that their participation in the interviews and questionnaires would be completely voluntary and that the information they provided would be used only to fulfil the aims of the study, and were informed of their full right to withdraw from the interviews or the questionnaires at any time without giving any reason.
- Care was taken to ensure that the participant being interviewed had no problem with recording.
- The questions chosen for the interviews were semi-structured because the researcher wanted to hear how participants felt from their own points of view

rather than his, and to ensure that he did not influence the answers in any particular way. The interviewees were asked if they wanted to check the accuracy of the transcripts before they were used in the study.

- All of the data gathered from the participants was kept confidential and anonymous, and the participants were informed that the data were their property. To ensure confidentiality and anonymity, pseudonyms were used for the interview participants, for example, (Student 2, Graduate 3).

3.7. CHAPTER SUMMARY

This chapter has discussed the theoretical and methodological perspectives that informed the design of this study. It has also outlined the research design and explained the research procedures used in detail. A mixed methods research design was applied, taking a triangulated approach to data collection on the basis of methods (interviews, documents analysis and questionnaires), sources (ESP students, graduates, teachers and administrators, hospital managers and English-speaking medical staff), and locations (three HSCs and five hospitals) to allow a comprehensive analysis of the research questions, and constructing reliability and validity. Finally, efforts were made to ensure the integration of ethical considerations into the research process.

The following two chapters present the quantitative and qualitative findings of the study with regard to the students' language needs (Chapter four) and the ESP course evaluation (Chapter five).

CHAPTER FOUR: LANGUAGE NEEDS – DATA ANALYSIS & DISCUSSION

To follow the systematic ESP curriculum development process introduced in Chapter 2 (Figure 2.1), this chapter reports and analyzes the data related to the English language needs of HSCs students. Therefore, data obtained from the course evaluation is analysed in the next chapter in order to identify to what extent these needs are addressed. The reason behind this dual analysis is to synthesize the data collected according to the process of the curriculum development.

This chapter has two primary parts, in which the first and second research questions posed in Chapter One are addressed. Thus, the first part concerns ESP students' language needs in respect of their academic studies, while the second addresses their work-related language needs. All the relevant data collected in the study are collated to provide a collective answer to each research question. That is, the qualitative and quantitative findings in respect of each question are presented concurrently. The results are also discussed in relation to relevant literature.

4.1. LANGUAGE NEEDS FOR ACADEMIC STUDIES

To what extent are the four main English language skills required in the HSC students' academic studies?

This question was mainly directed to investigating the relative importance of the four main English language skills (speaking, listening, writing and reading) to the HSC students' academic studies and to identifying what types of sub-skills in each of these four skills they needed in their academic studies. The information to answer this question came from sources of four main kinds: current students, graduates, ESP teachers and documents. It was obtained through three instruments: interviews with six students, seven graduates and six ESP teachers; questionnaires completed by 120 students, 106 graduates and 20 ESP teachers; and analysis of 15 examples of subject course tests.

The students', graduates' and teachers' responses are presented first, then these are compared to identify any significant differences. Finally, the results of the documents analysis are discussed.

Students' Responses

To start with, it was important to find out to what extent students wished to learn English for academic purposes. Therefore, current students were asked about their views concerning the reasons for learning English (Q1 in Students' Questionnaire, Appendix B1). According to their responses, 75 per cent of the students were learning English because it would help them in their academic studies.[1] This suggests that a majority of the students wished to learn English for academic purposes and thus that they recognized the importance of English to their academic success.

In the interviews, six students were asked to judge the importance of the four major English language skills in their academic studies (Q3 in Students' Interview, Appendix A1). Their responses are summarized in Table 4.1.

Table 4.1: Summary of students' views on the importance of English language skills for their academic studies

Interviewee	Speaking	Listening	Writing	Reading
Student 1	very important	important to a great extent	important	very important
Student 2	important	important	very important	important
Student 3	sometimes important	fairly important	very important	very important
Student 4	unimportant	important to some extent	important	very important
Student 5	not very important	important	not very important	important & necessary
Student 6	important	very important	important	very important

Table 4.1 shows that all four skills were seen by most of the interviewees (4 of 6) as important for their academic studies. All interviewees, in varying degrees, agreed that reading was important. One of the students explained, "*I think reading is very important because in my subject areas I need to read a lot to get the required*

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[1] Space limitations prevent the inclusion of other reasons here. However, some will be reported as is relevant.

knowledge from our textbooks and the teachers' handouts". When questioned further about the other skills, the same student answered:

> *To some extent, listening is important, because I need to understand what our subject teachers are saying in lectures... for writing, it is important, especially during examinations,* [when] *my subject teachers ask me to write short paragraphs about some medical topics... I would like to speak English but our subject teachers do not let us speak very much and this is why I think it is unimportant*. (Student 4)

Student 5 said, "*Reading is important and necessary because the teachers always ask us to read the textbooks and dictionaries to look up definitions of medical terminology... Actually, in order to succeed in my academic studies, I do not need to speak, so speaking is not very important*". When asked why he thought writing was not very important, he replied, "*Because I have to write only short sentences in exams*".

It can be inferred from the above responses that students related the importance of each skill to a particular factor. It can be argued that the subject course teachers' styles of teaching may have influenced the students' perceptions of the importance of each English language skill and why they needed it.

Three students (1, 2 & 6) replied that they needed speaking and listening skills for asking and answering questions during lectures and for comprehending what their teachers were saying when delivering information. Five students (1, 3, 4, 5 & 6) indicated that they had a great need for reading skills (skimming and scanning) because they were often required to extract important information from their subject textbooks, teachers' handouts and medical dictionaries, and to read the questions quickly in quizzes and final exams.

In the questionnaire, 120 students were asked to rate the importance of each of the four English language skills for their academic studies (Q6 in Students' Questionnaire, Appendix B1). The ratings were on a four-point Likert scale with the following values: "very important", "quite important", "not very important" and "not important at all". Table 4.2 summarizes the responses to this question.

Table 4.2: Students' perceptions of the importance of English language skills for their academic studies (frequency and percentage)

Rating Terms	SPEAKING		LISTENING		WRITING		READING	
	Freq	%	Freq	%	Freq	%	Freq	%
Very important	45	37.5	39	32.5	56	46.7	64	53.3
Quite important	49	40.8	52	43.3	42	35.0	46	38.3
Not very important	22	18.3	23	19.2	19	15.8	8	6.7
Not important at all	4	3.3	6	5.0	3	2.5	2	1.7

In general, a strong majority of students considered all four skills of English to be 'quite important' or 'very important' for their academic studies, with the reading skill obtaining the highest percentage for 'very important' (53%), followed by the writing skill (47%). This generally complements the result of the interviews conducted with six students. One possible explanation is that students may have felt that their ability to read and write was much stronger than their ability to speak and listen, making them think that reading and writing were more important skills than speaking and listening. Ribes and Ros (2006: 4) observe that the need to speak 'will only appear if you have developed the ability to speak in a correct manner, otherwise you will avoid it for fear of being considered not fluent in English'.

Graduates' Responses

To begin with, graduates were asked if they still wanted to learn English, and if so, for what reason (Q1 in Students' Questionnaire, Appendix B2). The results indicate that 90 per cent of the 106 who responded wanted to learn English because it would help them in their academic studies. Bearing in mind that they were not currently studying but working, this finding implies that the graduates realized the importance of learning English for academic purposes.

In the interviews, seven graduates were asked to evaluate the level of importance of the four major English language skills in their academic studies when they were studying at the HSCs (Q6 in Graduates' Interview, Appendix A2). Table 4.3 presents a summary of their responses.

Table 4.3: Summary of graduates' views on the importance of English language skills for their academic studies

Interviewee	Speaking	Listening	Writing	Reading
Graduate 1	important	very important	important	important
Graduate 2	very important	Important	important	important
Graduate 3	important	fairly important	very important	very important
Graduate 4	unimportant	Important	important	very important
Graduate 5	quite important	Important	very important	important
Graduate 6	very important	very important	very important	very important
Graduate 7	important	Important	very important	very important

Table 4.3 indicates that the interviewees considered all four skills to be important in varying degrees for their academic studies, except Graduate 4, who viewed speaking as unimportant.

One interviewee (Graduate 6) expressed his strong opinion that all four skills were very important for his academic study: "*I would say that reading, writing, listening and speaking are all very important because they complete each other*". He added, "*I remember when I was a student, in order to succeed I had to read textbooks and notes, and write lab reports and some paragraphs in exams... In order to get clarification from my teachers I had to speak and listen to them in lectures*". Another interviewee (Graduate 5) expressed a different view: "*A skill might be very important in a particular subject but it might not be very important in another subject. For example, listening was important in anatomy, whereas it was less important in biostatistics*". One interviewee (Graduate 4), when asked why he considered speaking unimportant, answered, "*I do not mean it was not important at all... in our subject courses, we did not have to do presentations or speak much... we spoke only when we needed some explanation or clarification from a non-Arabic speaking teacher*".

The questionnaire asked 106 graduates to rate the importance of each English language skill for their academic studies when they were HSC students (Q6 in Graduates' Questionnaire, Appendix B2). The ratings were on a four-point Likert scale with the following values: "very important", "quite important", "not very important" and "not important at all". Their responses are presented in Table 4.4.

Table 4.4: Graduates' perceptions of importance of English language skills for their academic studies (frequency and percentage)

Rating terms	SPEAKING		LISTENING		WRITING		READING	
	Freq	%	Freq	%	Freq	%	Freq	%
Very important	55	51.9	65	61.3	66	62.3	64	60.4
Quite important	35	33.0	30	28.3	29	27.4	30	28.3
Not very important	9	8.5	7	6.6	8	7.5	8	7.5
Not important at all	7	6.6	4	3.8	3	2.8	4	3.8

More than half of the graduates agreed that all four skills were very important for their academic studies when they were studying at the college, with the writing skill obtaining the highest percentage (62%), followed by listening, reading, and speaking. These results are generally consistent with the interview results.

ESP Teachers' Responses
In the interviews, six ESP teachers were asked to assess the level of importance of the four skills for their students' academic studies (Q7 in ESP Teachers' Interview, Appendix A3). Table 4.5 provides a summary of their responses.

Table 4.5: Summary of ESP teachers' views on the importance of English language skills for their students' academic studies

Interviewee	Speaking	Listening	Writing	Reading
Teacher 1	not very important	important	important	very important
Teacher 2	very important	important	very important	very important
Teacher 3	fairly important	very important	very important	very important
Teacher 4	very important	very important	very important	very important
Teacher 5	very important	very important	very important	very important
Teacher 6	Important	quite important	very important	very important

From Table 4.5, it is apparent that the six ESP teachers regarded all four skills as important for their students' academic studies. One of them (Teacher 5) felt that "*all the main skills are of the same importance... I mean they are all very important*". Another (Teacher 1) commented, "*We cannot ignore the importance of English skills for the students' academic studies because they need each skill to perform a certain task*". He went on to say, "*Of course, they all are important. In my opinion, reading is the most necessary skill in their studies... it is very important... Listening and writing are important... speaking is not very important*". When asked why he considered reading the most important, his response was: "*Reading is a major source of academic knowledge and it can help students in their academic learning… They also*

need it to understand questions in exams". Teacher 6 argued that "*in theory, all the four skills are very important... but in practice, as it is in our college here, reading and writing are more important than speaking and listening*". He went on to explain:

> *Students always need to read their subject textbooks and other relevant references to follow their academic studies… They are asked to write in quizzes and final exams... Otherwise they would leave exam papers blank… they rarely need to speak in subject lectures... In these lectures, they need to comprehend the teachers' speech.*

The questionnaire asked 20 ESP teachers to rate the importance of each English language skill in their students' academic studies (Q6 in ESP Teachers' Questionnaire, Appendix B3). The ratings were the same as those used in the students' and graduates' questionnaires. Responses to this question are presented in Table 4.6.

Table 4.6: ESP teachers' perceptions of the importance of English language skills for their students' academic studies (frequency and percentage)

Rating terms	SPEAKING		LISTENING		WRITING		READING	
	Freq	%	Freq	%	Freq	%	Freq	%
Very important	8	40.0	8	40.0	11	55.0	18	90.0
Quite important	10	50.0	11	55.0	9	45.0	2	10.0
Not very important	2	10.0	1	5.0	0	0	0	0
Not important at all	0	0	0	0	0	0	0	0

There would seem to have been consensus among all 20 ESP teachers that the skills of writing and reading were important for their students' academic studies. While a great majority (over 90%) indicated that listening and speaking were very important or quite important, only one of them rated listening as not very important and two considered speaking not very important. These results generally complement those of the teachers' interviews.

Comparing the Perceptions of the Three Groups
This part of the analysis aims to explore the level of agreement among respondents from the three groups on the importance of English skills for students' academic studies.

Regarding the questionnaire data, the Kruskal-Wallis test was used to determine whether there were any statistically significant differences between the perceptions of the three groups with respect to the importance of each skill. The significance level used was 0.05. Accordingly, if the p-value was less than or equal to 0.05, there would

be a significant difference among the groups. The results of the K-W test indicate a statistically significant difference between the perceptions of the three groups on the importance in the students' academic studies of listening, writing and reading. With regard to speaking, there was no significant difference between the responses of the three groups ($x^2 = 4.216$; $df = 2$; $p = 0.121$). This result suggests the existence of a common perception among the three groups with regard to assessing the importance of speaking to the students' academic studies. However, an inspection of the mean ranks for the groups suggest that the graduate group had the highest scores on the importance of speaking (132.87), followed by the ESP teachers (125.55) and the students (114.88). This is consistent with the interview findings, which indicate that the majority of respondents (12 of 19) considered speaking important or very important to the students' academic studies (5 graduates, 4 ESP teachers and 3 students).

In terms of listening, there was a statistically significant difference between the mean ranks of the three groups ($x^2 = 19.264$; $df = 2$; $p = 0.000$). The post-hoc Mann-Whitney test was run to locate the source of the significant differences, which were found to be between the mean ranks of the students and those of the graduates ($p = 0.000$) on one hand and those of the students and the ESP teachers ($p = 0.014$) on the other. However, the magnitude of the difference in the means was very small as measured by the effect size (ES).[1] This implies that the apparent statistical significance of the results may have been due mainly to the large sample size rather than to major differences between the groups. No statistically significant differences were found between the graduates and the teachers ($p = 0.175$). This suggests that these two groups may have had a common perception regarding the importance of listening. This is consistent with the interview findings that listening was considered important or very important by the overwhelming majority of both graduates and ESP teachers. In contrast, only 3 students shared this view.

With regard to writing, there was a significant difference between the mean ranks of the three groups ($x^2 = 6.364$; $df = 2$; $p = 0.041$). This implies a lack of clear consensus among the three groups on the importance of the writing skill for academic studies. The post-hoc test showed that the statistically significant differences were

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[1] Effect size = Z score / N^2 = smaller than 0.28.

between the students and the graduates ($p = 0.016$) and between the students and the ESP teachers ($p = 0.016$), but the ES was smaller than 0.16, suggesting that these significant differences may have been due mainly to the large sample size. No statistically significant differences were found between the graduates and ESP teachers. This suggests that there was considerable agreement between the graduates and teachers on the importance of writing. This is wholly consistent with the interview findings, as writing was considered important or very important by all the interviewees in the two groups (7 graduates and 6 ESP teachers).

Results for reading show highly significant differences ($x^2 = 9.103$; $df = 2$; $p = 0.011$) among the three groups regarding its importance for the students' academic studies. An inspection of the mean ranks for the groups suggests that the ESP teachers had the highest mean rank (162.30) and therefore perceived reading as more important. The post-hoc test shows that the statistically significant differences were between the ESP teachers and the students ($p = 0.002$) on one hand and between teachers and graduates ($p = 0.010$) on the other. The ES was smaller than 0.23, indicating that the magnitude of these differences was not substantial. No statistically significant differences were found between the graduates and students. Although the questionnaire responses show significant differences among the three groups, the interview responses demonstrate that the six students, seven graduates and six ESP teachers were all in agreement that reading was important or very important.

Overall, of the four language skills, speaking was considered the least important, particularly by teachers and graduates, behind reading, writing and listening. This may be, as three students and three graduates pointed out in the interviews, because subject teachers did not require oral presentations in classes or exams. Such a result might also lead one to suggest that the students were not assessed on their participation in class discussions.

Document Analysis

This section presents the results of examining the 15 typical sets of tests or examinations used in the subject courses (namely Anatomy & Physiology, Healthcare Basics, Biostatistics & Epidemiology, First Aid and Computer Applications) which HSCs students take concurrently with the ESP course. These typical sets of the test samples were provided by the subject course teachers (see samples of these tests in Appendix C).

An analysis of the test samples indicated that 38% of the questions were multiple-choice items, 9% were in the form of matching between columns and 7% were true-or-false statements. The content of these questions evoked a wide range of health knowledge and information, and a variety of medical terminology was used, but the only language skill that the students would often require to comprehend such questions was reading. Conversely, it was found that 43% of the questions required written answers of some kind. The majority of these (25% of the total) were in the form of gap-filling; 8% required the writing of short sentences, 4% short paragraphs and 2% written definitions of medical concepts and terminology; 1% required the students to write short essays to describe processes and to draw diagrams or flowcharts to explain them; 1% instructed them to write a complete essay on a particular medical topic; and 2% required the students to perform mathematical tasks (e.g. to find the average blood pressure of a sample). Finally, it was found that students were not required to perform any listening or speaking activities (e.g. giving oral presentations, interacting in laboratory settings) in their subject exams.[1]

Results Summary

To sum up, the results suggest that English was not only very important for students' academic success but indeed indispensable to it. This suggestion is consistent with the observation of Mauranen et al. (2010: 184) that recent studies indicate that English language proficiency plays a role in academic success. Of the English language skills, reading was considered the most important in the students' academic studies, ahead of writing, listening and speaking. This finding is in line with Jordan's (1997: 50) claim that reading academic texts is the principal requirement for students in EFL contexts. Flowerdew and Peacock (2001b: 185) agree, noting that 'reading is probably the skill needed by the greatest number of EAP students throughout the world'.

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[1] Students had listening and speaking exams in their ESP courses, which are discussed elsewhere in this thesis.

4.2. LANGUAGE NEEDS FOR TARGET CAREERS

To what extent are the four main English language skills required in the HSC students' target careers?

This question was mainly oriented towards investigating the relative importance of the four major English language skills for the HSC students' target careers and determining what types of sub-skill were needed in each of these. The information to answer this question came from sources of seven kinds: current students, ESP teachers, graduates, hospital managers, English-speaking physicians and health assistants, and workplace documents. It was gathered by means of three instruments: interviews with six students, seven graduates, six ESP teachers, five hospital managers, five physicians and six health assistants; questionnaires completed by 120 students, 106 graduates and 20 ESP teachers; and analysis of 48 authentic written workplace texts.

This section begins by considering the data provided by students, graduates, teachers, hospital managers, physicians and health assistants, then comparisons are made among these sources; finally, the results of the document analysis are discussed.

Students' Responses

To start with, when current students were asked about the reasons for learning English (Q1 in Students' Questionnaire, Appendix B1), 77 per cent of the them said that they were doing so because it would be needed in their target careers, while 59% felt that it would help them to be successful in their medical careers. This implies that the majority of the students were aware of the importance of English in their future professional lives.

In the interviews (Q2), six students were asked about their views of the importance of the four major English language skills for their target careers. Their responses are summarized in Table 4.7.

Table 4.7: Summary of students' views on the importance of English language skills for their target careers

Interviewee	Speaking	Listening	Writing	Reading
Student 1	very important	important	Important	very important
Student 2	very important	very important	not very important	very important
Student 3	very important	very important	Important	very important
Student 4	very important	very important	Important	important
Student 5	very important	very important	Important	important
Student 6	most important	very important	Important	very important

All student interviewees thus indicated that they saw all four skills as important for their target careers. Four of them (Students 2, 3, 4 and 6) agreed that speaking was the most important. One of them (Student 6) stated:

> *There is no doubt at all that English skills are very important in the places where we are going to work ... in the medical field, where the language is English. Speaking is the most important, followed by listening, because you need to understand what your foreign work colleagues are saying. You also have to be able to read and write.*

However, one of the interviewees (Student 1) gave an opposite response: "*I think all the skills are important but reading is the most important, followed by speaking and writing*".

In the questionnaire, the students were asked to rate the importance of each major English language skill for their target careers (Q6 in Students' Questionnaire). The ratings were on a four-point Likert scale with the following values: "very important", "quite important", "not very important" and "not important at all". The results are presented in Table 4.8.

Table 4.8: Students' perceptions of importance of English language skills for their target careers (frequency and percentage)

Rating terms	SPEAKING		LISTENING		WRITING		READING	
	Freq	%	Freq	%	Freq	%	Freq	%
Very important	100	83.3	75	62.5	82	68.3	88	73.3
Quite important	14	11.7	31	25.8	31	25.8	22	18.3
Not very important	5	4.2	11	9.2	7	5.8	10	8.3
Not important at all	1	0.8	3	2.5	0	0	0	0

Generally speaking, consistent with the interviews, the majority of students rated all four skills as quite important or very important for their target careers, with the speaking skill obtaining the highest percentage of 'very important' responses.

Graduates' Responses
Among the 106 HSC graduates working as health employees who completed questionnaires, 93 per cent indicated that they wanted to learn English because their job often required them to use it, while 86 per cent of them wanted to do so because they thought it would help them to be successful medical professionals. This suggests that English was of great importance in the students' target careers.

In the interviews, seven Saudi health employees who had studied ESP at various HSCs were asked to identify the level of importance of the four major English language skills in their current careers (Q4 in Graduates' Interview). Table 4.9 presents a summary of their responses. Although there was considerable variation, these employees perceived all of the major skills as important to their current careers. Five of them (Employees 1, 2, 3, 5 and 6) assessed speaking and listening as more important overall than reading and writing.

Table 4.9: Summary of employees' views on the importance of English language skills for their current careers

Interviewee	Speaking	Listening	Writing	Reading
Employee 1	very important	very important	important	very important
Employee 2	very important	very important	important	very important
Employee 3	very important	very important	very important	very important
Employee 4	Important	Important	very important	very important
Employee 5	very important	very important	important	very important
Employee 6	very important	very important	important	very important
Employee 7	very important	Important	important	Important

Employee 1, a dental assistant, said, "*I can rank both speaking and listening as the most important, followed by reading and lastly writing*". He explained, "*I have to talk and listen to the instructions of the dentist*". In contrast, Employee 4, a radiology technician, placed more importance on reading and writing: "*Reading and writing are very important… because I have to understand X-ray requests and write clinical descriptions*".

Five employees (1, 2, 3, 5 & 6) mentioned that they needed speaking and listening skills to communicate with their English speaking co-workers and patients and to understand doctors' oral instructions. The same five, plus Employee 4, stated that they were often required to read departmental memos, patients' files and progress reports, and request forms.

Q6 in the graduates' questionnaire asked respondents to rate the importance of each English language skill in their current careers, using the same ratings as in the students' questionnaire. The results are summarized in Table 4.10, which shows that all four skills were ranked equally as very important by more than 80 per cent of the employees. Only one thought that speaking was not important at all, while another considered writing to be unimportant in his place of work.

Table 4.10: Employees' perceptions of the importance of English language skills for their current careers (frequency and percentage)

Rating terms	SPEAKING		LISTENING		WRITING		READING	
	Freq	%	Freq	%	Freq	%	Freq	%
Very important	91	85.8	86	81.1	86	81.1	85	80.2
Quite important	13	12.3	15	14.2	15	14.2	18	17.0
Not very important	1	0.9	5	4.7	4	3.8	3	2.8
Not important at all	1	0.9	0	0	1	0.9	0	0

ESP Teachers' Responses

Six ESP teachers were asked to assess the level of importance of the four skills for their students' target careers (Q9 in ESP Teachers' Interview). Table 4.11 shows that the majority believed all four skills to be very important.

Table 4.11: Summary of ESP teachers' views on the importance of English language skills for their students' target careers

Interviewee	Speaking	Listening	Writing	Reading
Teacher 1	very important	very important	important	Important
Teacher 2	very important	very important	very important	very important
Teacher 3	very important	very important	important	very important
Teacher 4	very important	very important	very important	very important
Teacher 5	very important	very important	very important	very important
Teacher 6	Important	Important	fairly important	very important

As one of them (Teacher 2) put it, "*the four fundamental skills, through which we learn language and for which we need language, should serve as the basis of a well-*

rounded comprehensive communication. Thus, all the skills are definitely very important for the students' future careers". Teacher 1 gave a different response, saying that: "*I think they need speaking very much. So, speaking and listening are the most important skills, writing is third, because they are sometimes required to write medical reports in English, and reading is last*".

Q6 in the teachers' questionnaire asked them to rate the importance of each English language skill for their students' target careers, using the same ratings as in the students' and employees' questionnaires. Table 4.12 shows that all the ESP teachers perceived all four skills as quite important or very important.

Table 4.12: ESP teachers' perceptions of the importance of English language skills for their students' target careers (frequency and percentage)

Rating terms	SPEAKING		LISTENING		WRITING		READING	
	Freq	%	Freq	%	Freq	%	Freq	%
Very important	15	75.0	12	60.0	6	30.0	17	85.0
Quite important	5	25.0	8	40.0	14	70.0	3	15.0
Not very important	0	0	0	0	0	0	0	0
Not important at all	0	0	0	0	0	0	0	0

A fairly high percentage of the ESP teachers rated reading and speaking as very important. To a great extent, these results are consistent with those of the interviews conducted with the six ESP teachers.

English-speaking Physicians' and Health Assistants' Responses
Five physicians and six health assistants were interviewed and asked about the level of importance of the four major English language skills for HSC students' target careers (Q8 in Appendix A5). Their responses are summarized in Tables 4.13 and 4.14 respectively.

Table 4.13: Summary of physicians' views on the importance of English language skills for students' target careers

Interviewee	Speaking	Listening	Writing	Reading
Physician 1	very important	very important	very important	very important
Physician 2	very important	very important	very important	very important
Physician 3	very important	very important	very important	very important
Physician 4	very important	very important	very important	very important
Physician 5	very important	very important	very important	very important

Table 4.14: Summary of health assistants' views on the importance of English language skills for students' target careers

Interviewee	Speaking	Listening	Writing	Reading
Health Ass. 1	very important	very important	important	Important
Health Ass. 2	very important	very important	very important	very important
Health Ass. 3	very important	very important	important	Important
Health Ass. 4	Important	Important	very important	very important
Health Ass. 5	very important	very important	important	important
Health Ass. 6	very important	very important	important	Important

Not surprisingly, almost all physicians and health assistants appeared to believe that all four major skills of English were very important for students' target careers. While health assistants tended to place more importance on speaking and listening, physicians appeared to consider all four skills of equal importance. Physician 2 explained that "*in the medical profession, all English skills are equally very important, because an inability to understand procedures, read requests, give orders and so on will cause problems*". This view was shared by Physician 4, who said, "*they are all very important. A medical person should be well-informed in all these skills, and the lack of English proficiency in any skill can mean trouble in our work*". Two nurses (Health Assistants 2 & 4) emphasized the importance of reading and writing. For Health Assistant 4, "*...reading and writing are the most important... because doctors write diagnoses and prescriptions in English only, and medicine labels are also written in English*".

Five health assistants (1, 2, 3, 5 & 6) said that listening was very important because they often took dictation from their physicians when preparing clinical reports.

Hospital Managers' Responses

Five hospital managers, all Saudi nationals, were interviewed. They were asked to rate the importance of the four major English language skills for HSC students' target careers (Q8, Appendix A6). The responses are summarized in Table 4.15.

Table 4.15: Summary of hospital managers' views on the importance of English language skills for students' target careers

Interviewees	Speaking	Listening	Writing	Reading
Manager 1	very important	very important	very important	very important
Manager 2	Important	Important	important	important
Manager 3	very important	very important	very important	very important
Manager 4	very important	very important	very important	very important
Manager 5	very important	very important	important	important

On the whole, the managers were unanimous in regarding all four skills as important to their prospective employees' work. However, two of them (Managers 1 & 3) indicated that the level of importance of each skill could vary, depending on the type of profession involved. Manager 3 explained: "*It is difficult to give a clear-cut answer because the level of importance of each skill often varies from one health profession to another; but in general I can say that the four skills are all very important*". He then explained that health assistants "*... have to read departmental memos, medical reports and requests, and understand what is required from them... They also have to communicate effectively with their colleagues and discuss work-related issues*". Manager 4 noted that "*the more fluent a medical professional is in written and oral English, the more successful he or she is in his own profession, and therefore all the skills are very important*". He also observed that a poor command of English can cause delays in carrying out medical work.

Comparing the Perceptions of the Groups

This part of the analysis assesses the degree of similarity or difference among all respondents from the six groups on the importance of English skills for health professions. The questionnaire data obtained from the students, employees and ESP teachers is analyzed first to see if there are any statistical differences between them, then the interview data obtained from all six groups are compared. Because the samples of managers (n=5), physicians (n=5) and health assistants (n=6) were small, no statistically significant differences could be sought for these groups.

When the K-W test was applied to the responses of the three groups (students, employees and ESP teachers) concerning the importance of speaking ($x^2 = 1.343; df = 2; p = 0.511$)   and   reading ($x^2 = 2.782; df = 2; p = 0.249$),   no statistically significant difference was found between them. The results of the Mann-

Whitney post-hoc test also failed to show any differences regarding these two skills. This suggests a considerable degree of agreement among the three groups in assessing the importance of speaking and reading for the students' target careers. A cross-tabulation of the data shown in tables 4.8, 4.10 & 4.12 indicated a general perception among the majority of respondents in the three groups that both speaking and reading were very important for the students' target careers. This complements the findings of the interviews with students, employees and ESP teachers, that the majority of interviewees in each group considered speaking and reading to be very important for students' target careers. This view was also expressed by almost all physicians, health assistants and hospital managers who were interviewed.

In regard to rating the importance of listening, there was a statistically significant difference between the three groups ($x^2 = 10.362$; $df = 2$; $p = 0.006$), with employees having the highest mean rank (136.93), followed by ESP teachers (114.60) and students (113.12). The Mann-Whitney test indicated a statistically significant difference between the mean ranks of the students[1] and those of the employees ($p = 0.002$), but the magnitude of the difference was very small (EZ = 0.23). No statistically significant differences were found between employees and ESP teachers ($p = 0.060$) or between students and ESP teachers ($p = 0.857$). A cross-tabulation found that listening was considered very important by the majority of respondents, particularly employees and ESP teachers. This is broadly consistent with the interviews, where the majority of respondents in all six groups thought that listening was very important for the students' target careers.

In terms of rating the importance of writing for students' target careers, the questionnaire responses of the three groups were highly significantly different ($x^2 = 18.470$; $df = 2$; $p = 0.000$). As measured by the Mann-Whitney test, there were statistically significant differences between the students and ESP teachers ($p = 0.004$) and between the employees and ESP teachers ($p = 0.000$). However, the magnitude of these differences was not large (EZ = 0.24 and 0.30 respectively). No statistically significant difference was found between students and employees. This suggests that students and employees held a similar perception of writing as very

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[1] It is to be noted that most of the student respondents had not yet experienced the use of English in their target careers. Therefore, their responses here have been based mainly on their expectations.

important. However, there is a considerable discrepancy between these results and those of the interviews. None of the student interviewees said that writing was very important for their target careers, while only two employees, three ESP teachers, two health assistants and three hospital managers held this view, although all of the physicians interviewed did so.

Overall, the great majority both of interviewees and of questionnaire respondents agreed that all four main English skills were very important for the students' target careers.

Document Analysis

This section presents the results of the analysis of authentic medical texts of the kinds which HSC students were expected to read and write in their future workplace settings, namely hospitals, medical and health centres and clinics. A total of 48 such texts were selected by random sampling, collected and analyzed (see samples of these in Appendix D). Twelve of them were used in the Radiology Department, 7 in Emergency, 7 in Laboratory, 6 in Medical Records, 5 in Pharmacy, 4 in Administrative Affairs, 4 in Dentistry and 3 in Operations.

It was found that 56% of them were formally written in both Arabic and English. Most of these bilingual texts were written on one divided page: Arabic on the right and English on the left. It is interesting to note that one of these texts (a Radiology Department internal memo) was originally written in English and its Arabic translation was handwritten at the bottom, probably by the Chief Radiologist (see Appendix D). This implies that there were some health professionals who were still unable to comprehend the English text.

The most common types of these medical workplace texts were reports (41%), request and report forms (18%), prescriptions (10%), internal memos (8%), physical examination forms (8%), procedural texts (6%) and notes of patient progress (6%). All of these texts required healthcare professionals to have a high level of medical and health knowledge and to be familiar with a variety of medical terminology, often written in the form of abbreviations (e.g. TB for tuberculosis) or acronyms (e.g. AIDS for acquired immunodeficiency syndrome).

It was also found that 54% of the hospital forms consisted entirely of checklists or tick-box sheets and 25% of written script, while the remaining 20% included both checklists and cursive handwriting.

Based on the above, in terms of English reading skills, it can be concluded that HSC students were expected to read instructions in general English to carry out particular tasks, some related to the health profession involved and others to the hospital. They were also expected to read a wide range of medical terminology and abbreviations, particularly in medical reports and requests, and procedural templates, including checklists. Prospective health professionals also needed to be able to read and comprehend the cursive handwriting of other medical staff.

With regard to English writing skills, it seems that students were not always expected to write. For the most part, hospital forms required only the ticking of boxes, although some (e.g. patient history/progress forms) required the writing of short diagnostic notes and brief chronological reports. Quick and clear handwriting was also required on the part of health professionals, as this would allow them to fill out the forms accurately while gathering information from the patient. Indeed, this is one of the guidelines outlined in the ethical code of the medical profession in Saudi Arabia (Aljarallah et al., 2008: 21). However, it is odd that this guideline does not specify the language (English or Arabic) in which the forms should be written.

Results Summary

On the whole, students rightly expected to need a great deal of English in their target careers. All the traditional language skills were considered to be very important. Overall, the findings support the view of Hernandez-Gantes and Blank (2009: 5) that the ability to interact in English in hospitals 'has become as important as specific occupational skills'.

4.3. CHAPTER SUMMARY

This chapter has presented, discussed and analyzed the findings regarding the academic and professional language needs of HSC students. A mix of method was used: semi-structured interviews with 35 participants, questionnaires completed by 246 participants, and analysis of 15 subject course tests and 48 workplace documents. A comparison between the responses of the participants was performed to determine differences.

The results of the language needs analysis has demonstrated that English played a major role in the students' academic studies and target careers. By and large, the data suggest that all four main language skills were important for their studies and target careers. More precisely, the data suggest that while reading and writing skills were given greater attention in academic studies, speaking and reading skills tended to be required more than writing and listening in the students' target careers.

The next chapter presents the results regarding the extent to which the current ESP course at the HSCs has fulfilled its students' academic and work-related language needs, as well as their language learning needs.

CHAPTER FIVE: COURSE EVALUATION – DATA ANALYSIS & DISCUSSION

Having presented and discussed the findings of the needs analysis, it is now necessary to determine to what extent the identified needs are met by the current ESP course. Therefore, this chapter analyzes and discusses the data collected to address the third major research question, concerning the evaluation of the appropriateness and effectiveness of the ESP course offered at the HSCs. It has two primary parts. The first is on the appropriateness of the course areas investigated; and the second is on the effectiveness of the ESP course (see Table 2.3 in Chapter 2).

The evaluation information on the ESP course was collected from two major sources: related documents and the course stakeholders, i.e. language teachers, administrators, current students and graduates (past students). Data on stakeholders' views and attitudes towards the ESP course were collected by means of semi-structured interviews and questionnaires.

5.1 APPROPRIATENESS OF THE ESP COURSE
To what extent is the ESP course appropriate?

A process-based approach to ESP course evaluation was adopted to answer this question by going deeply into some of the constituent parts of the course and its processes in an attempt to identify problems, if any, and to suggest possible solutions, as well as to highlight its strengths. The information collected on the specified aspects of the course (curriculum organization and syllabus specifications, teaching and learning materials and aids, classroom activities and methodologies, and assessment procedures; see Table 2.3) is qualitatively and quantitatively analyzed to evaluate the appropriateness of these areas to students' learning and target needs, and hence to the course objectives.

5.1.1 ESP Curriculum Organization
In this section, the focus is primarily on some important specifications of the ESP course: its duration, focus and objectives, as well as the qualifications, roles and training of the teachers.

5.1.1.1 Course Duration

Students' Responses

All six student interviewees felt that the current number of hours devoted to the ESP course (12 per week for two semesters) was inadequate to satisfy their needs. Student 3 complained that the HSCs gave *"more time to other subjects... This complicates our focus on learning English"*. Another interviewee (Student 2) argued that *"a single-year English course is very short... We need more time on English instruction to cope with our academic studies and future jobs"*.

This area of concern was further explored in the questionnaire, which asked the students at the end of the ESP course whether they agreed that the time allotted was insufficient and that more time should be given to English language instruction at the HSCs (Q12f). Figure 5.1 shows the responses in terms of percentage of the 120 respondents. The mean and standard deviation (SD) figures are for scores on a four-point Likert scale, where 1 = strongly disagree and 4 = strongly agree. More than three-quarters (78.3 per cent) of respondents agreed or strongly agreed that the course was too short and that more time should be given to English instruction, while only 21.6 per cent disagreed or strongly disagreed. These results generally support what was expressed in the interviews.

Figure 5.1: Percentage of student questionnaire respondents agreeing that the ESP course duration was inadequate (Mean= 3.16, SD= 0.898)
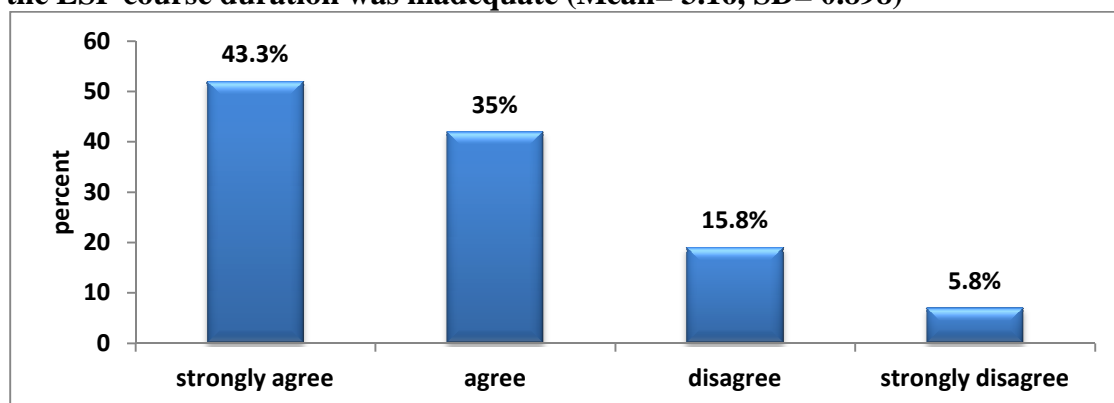
Bearing in mind that the ESP students were likely to have different levels of English proficiency and that they were not streamed because the course lacked an official placement test, it is possible that it was the less proficient who considered 12 hours per week insufficient, while the more proficient ones saw this as sufficient. However,

a strong majority of students were in favour of increasing the number of contact hours. This was also one of the points most often expressed (by 53 students) in response to the open-ended questionnaire item which invited suggestions to make the course more effective and appropriate.

Graduates' Responses

When seven former students were interviewed, five of them also complained about the inadequate duration of the course and suggested that the number of contact hours should be increased. Graduate 6 said: "*The course is too short... I remember that due to the lack of time, teachers were explaining the lessons in a rush in order to get through the textbooks*". He suggested that "*the whole first year at the college should be devoted to the English course*". Another former student (Graduate 3) also felt that "*the time allocated to the course is too short... They should increase the contact hours of listening, reading and writing*".

When former students were asked in the questionnaire whether they agreed that the course duration was inadequate and that more time should be allocated (Q12f), their responses (see Figure 5.2) indicated that a strong majority (about 89%) agreed or strongly agreed, while only about 10 per cent of graduates disagreed or strongly disagreed.

Figure 5.2: Percentage of graduates agreeing that the ESP course duration was inadequate (Mean= 3.47, SD= 0.759)
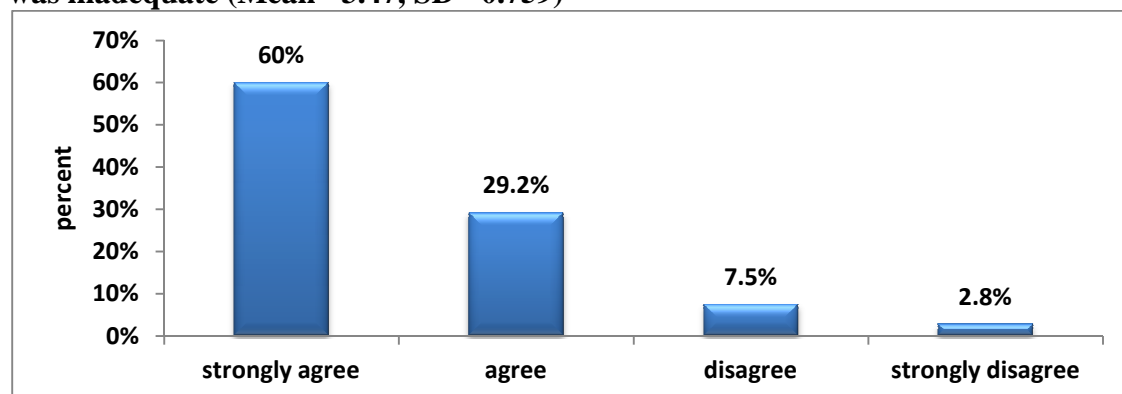
ESP Teachers' Responses

All six teachers interviewed also thought that 12 hours per week was insufficient and stressed the importance of increasing the course contact hours. Teacher 2 observed that "*this two-semester ESP course is designed for those students who have a good grounding in English, but the fact is that the majority* [who join the HSCs] *are very poor in English... There is a great gap, causing deep trouble*". He went on to suggest "*a placement test before the course begins*". Another respondent (Teacher 4) pointed out that "*because most students join our ESP course with a very poor command of English, we often spend much time teaching very basic English ... so we are unable to teach all the required lessons*". He suggested that "*a three-term course would be appropriate*".

Similarly to current students and graduates, 20 ESP teachers were also asked about the allocation of course time (Q12f). The questionnaire data show that the great majority (85%) agreed or strongly agreed that the course duration was inadequate and that more time should be allotted (see Figure 5.3). Only 15 per cent of teachers disagreed and none strongly disagreed.

Figure 5.3: Percentage of ESP teachers agreeing that the course duration was inadequate (Mean= 3.55, SD= 0.759)
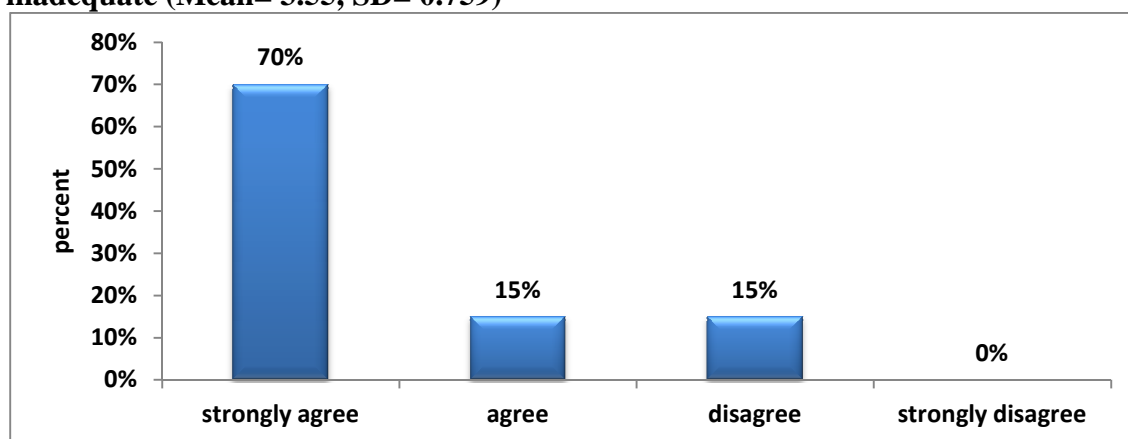
Administrators' Responses

When administrators were interviewed, three of the five felt that the present amount of time devoted to the ESP course was insufficient. For example, Administrator 3 said, "*I think the time available now to learn English language in the HSCs is too*

little… students need more time on learning English in order to reach a level where they can follow their academic studies". The other two administrators indicated that the course duration was appropriate and put the blame for any weakness on the students, who usually joined the HSCs with a very limited command of English.

Summary

To sum up, the interview data show that the majority of interviewees (20 of 24) were in favour of increasing the number of course contact hours. The great majority of questionnaire respondents (206 of 246) agreed with this view. This finding is in line with the claims made by McDonough (1984: 91), Robinson (1991: 3) and Basturkmen (2006: 18) that students in ESP classrooms often have limited time to learn English. The K-W test indicated that there was a statistically significant difference between the questionnaire responses of the three groups, i.e. students, graduates and ESP teachers ($x^2 = 9.809$; $df = 2$; $p = 0.007$). The Mann-Whitney test indicated that the statistically significant difference was between the students and the graduates ($p = 0.005$), but its magnitude was very small (EZ= 0.18). This result suggests that the graduates felt more strongly than the students that the present course duration was inadequate and that more time should be allocated to the course. However, as it was generally felt that inadequate time was devoted to the course, it can be concluded that the focal point of course duration constitutes a weakness of the current ESP course. By analogy, as Jureckov (1998: 44) maintains, 'ESP learners require not only a desired and substantial "meal" but also an appropriate time for its consumption, otherwise they cannot digest it'. McDonough (1984: 91) also points out that 'the relatively small amount of time that can be spent in the language class may well bring about a decrease in its efficiency'.

5.1.1.2 Course Focus

Students' Responses

Four of the six students interviewed were of the opinion that ESP instruction should focus more on medical rather than general English. Their comments included: "*The lessons are not related to the medical field. I don't know why there are so few medical topics*" (Student 2); "*Most of the course content is general English… Reading is totally general, no medical content is included*" (Student 5). Thus, it was important to ask the students in the questionnaire how far they agreed with the following two

ideas: ESP instruction should focus on ME (Q12d in Questionnaires); ESP instruction should focus on GE (Q12e in Questionnaires). Figure 5.4 shows that the results were not in line with the interview responses: 80 per cent of students agreed or strongly agreed that the course instruction should focus on GE, as opposed to only 68 per cent who agreed or strongly agreed that the focus should be on ME, while almost a third (32%) disagreed or strongly disagreed with a focus on ME.

Figure 5.4: Percentage of students agreeing that the ESP course should focus on Medical English and General English (ME: mean=2.92, SD=1.038; GE: mean=3.15, SD=0.932)
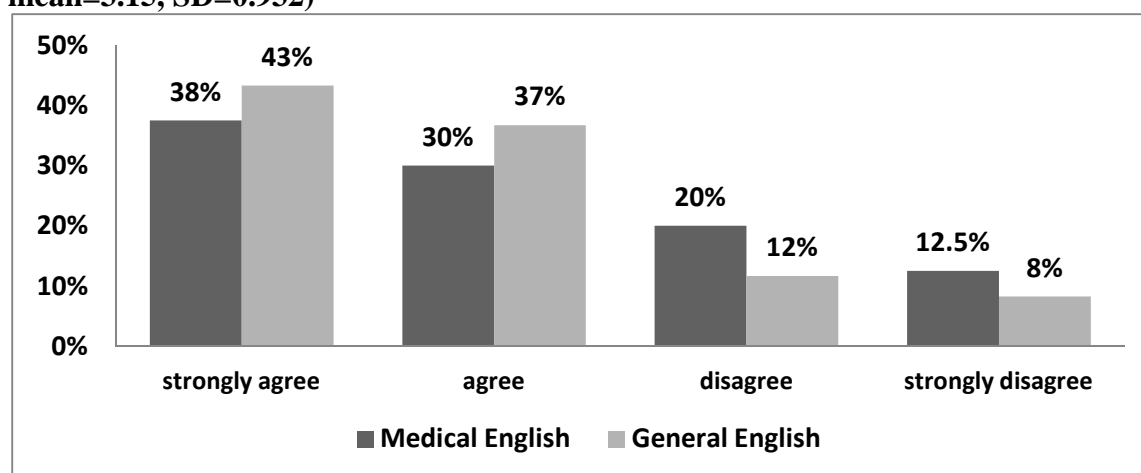
Graduates' Responses

Four of the seven graduate interviewees, like the majority of student interviewees, preferred a focus on medical English. For example, Graduate 3 said, "*I think they should concentrate on English needed for medical studies and professions, not only general topics*". Another former student (Graduate 7) maintained that "*the content of the course was not really related to our field of study and work*".

Figure 5.5: Percentage of graduates agreeing that the ESP course should focus on Medical English and General English (ME: mean=2.99, SD=0.971; GE: mean=3.15, SD=0.860)
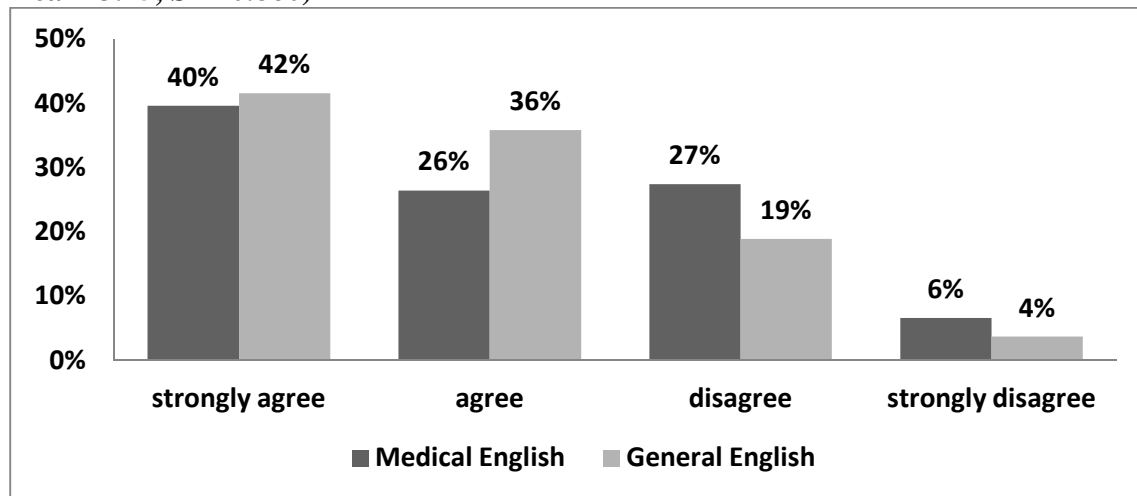
Figure 5.5 shows the proportion of responses by graduates to questionnaire items concerning the focus of instruction in the course (Q12d&e), which again contrasted with interview data. More than three-quarters (78 per cent) of graduates agreed or strongly agreed that the focus should be on GE, while only two-thirds (66 per cent) agreed or strongly agreed with a focus on ME.

ESP Teachers' Responses

Five of the six teachers interviewed felt that the course instruction should focus more on ME. One of them (Teacher 1) commented: "*I think the present course curriculum should be changed... The focus should be on the medical field... Currently, students are exposed to medical input in only one subject which is medical terminology*". Teacher 6 also argued that "*the students in the first year study some subjects which are not related to their target career... The English course should be oriented to students' studies and jobs*". Teacher 3 agreed that the course "*should be medical-oriented rather than on general English*". Similarly, Teacher 4 suggested that "*the course should be planned for medical purposes*".

This time, the teachers' questionnaire data (Figure 5.6) showed more agreement with the interviews: 75 per cent of respondents agreed or strongly agreed that the course instruction should focus on ME, while only 25 percent disagreed. At the same time,

60 per cent of teachers agreed or strongly agreed that the focus should be on GE, while 40 per cent disagreed.

Figure 5.6: Percentage of ESP teachers agreeing that the ESP course should focus on Medical English and General English (ME: mean=3.25, SD=0.0851; GE: mean=3.00, SD=0.918)
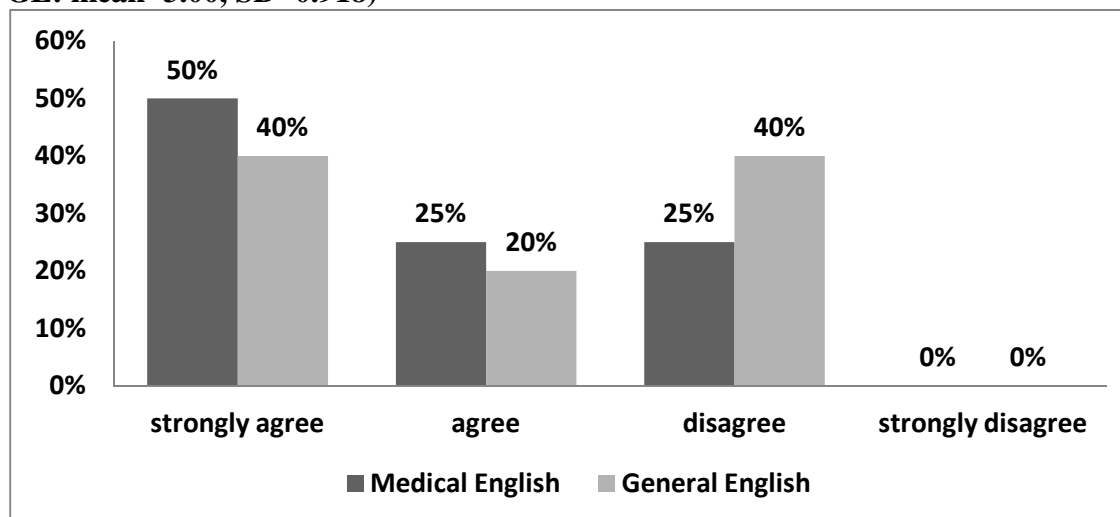
Administrators' Responses

Three of the five administrators interviewed believed that the ESP course instruction should focus more on ME. One of these (Administrator 2) felt that "*the course is too general… it is not centred on the language needed in medical contexts*". The other two administrators thought that the focus should be solely on GE during the first semester, with more ME during the second semester.

Summary

To recapitulate, while two-thirds of interviewees (16 of 24) were in favour of focusing on ME, the stronger tendency among the questionnaire respondents (students, graduates and teachers) was to suggest that the course instruction should focus on GE. This implies that there were still perceived to be many students who needed to improve their GE proficiency, which was thus seen as being too low. In answering the second open-ended question in their questionnaire, many students admitted that they could not construct a grammatical sentence.

It is worth noting that the K-W test showed no significant difference between the responses of students, graduates and ESP teachers with respect to the suggestion that

155

the course instruction should focus on GE ($x^2 = 0.718$; $df = 2$; $p = 0.698$); nor did it show any significant difference between the responses of these groups with respect to the suggestion that the course instruction should focus on ME ($x^2 = 1.522$; $df = 2$; $p = 0.467$). This suggests that the perceptions of the three groups were relatively close to each other, with the majority in favour of balancing the course focus between GE and ME. This seems to be in line with Mohammed's (1995: 10) suggestion that GE is important in ME. It can be concluded that course focus is another general weakness of the current ESP course.

5.1.1.3 Objectives of Course Components
It is assumed that the stated objectives of any course serve to set its scope and limits. What is crucial is that these objectives should be consistent, feasible, realistic, relevant and appropriate. The focus of investigation in this part is mainly on assessing to what extent the stated instructional objectives of each of the four ESP course components are appropriate and relevant to the students' needs.[1]

When the Head Administrator (Administrator 1) was asked in interview what the Ministry of Health or the HSCs wanted the students to be able to do in English while studying at the HSCs and when they graduated, he replied: "*the HSCs want them to be able to communicate in health-oriented and general situations using all of the language skills*". However, according to the GDHCI (2007: 3), the overall objective of the ESP course is to improve students' English language so that they are able to use it for the purposes of study and communication. This overall objective is broken down into more specific instructional objectives for each language component of the ESP course in each of its two semesters. Each of these four components – Writing & Grammar, Listening & Speaking, Reading, and Medical Terminology – has its own stated objectives, as discussed in Chapter One, section 1.2.1.1, which detail what the students should be able to do at the end of that component.

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[1] Of course, there is no simple or single way to evaluate the appropriateness of course objectives (Genesee and Upshur, 1996: 22). However, the results of this investigation can give us an overall indication of their importance.

In order to identify any mismatches between the planned curriculum and the perceptions of the course participants, an item in the students', graduates' and ESP teachers' questionnaires (Q11) asked them to rate the relative importance of the stated objectives of each language component to the students' academic studies and to their target careers. A four-point scale was used: 4=very important, 3=quite important, 2=not very important, 1=not important at all. Their responses were compared statistically by running the K-W test to identify any significant differences. For the sake of clarity, the statistical results are presented separately for each language component, then a summary of these results is provided.

Writing & Grammar

In this language component, writing was integrated with grammar. It had four stated objectives. The results of rating the importance of these objectives for the students' academic studies are summarized in Table 5.1, which has columns and rows for each of the following statistics for each objective: the mean rank for each group and the degree of significance of the differences between the groups.

Table 5.1: A comparison of the three groups' perceptions of the importance of Writing & Grammar objectives for academic studies

Objectives of Writing & Grammar	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To write a text using the acquired writing techniques	107.90	141.19	123.38	13.901	0.001[†]
2. To produce good writing by taking care of spelling, punctuation, cursive handwriting and grammatical points	111.33	143.23	91.95	17.440	0.000[†]
3. To express ideas correctly and to follow writing techniques	106.61	148.29	93.45	26.614	0.000[†]
4. To apply all grammatical points in both spoken and written English	112.99	140.18	98.18	12.895	0.002[†]

*MR=Mean Rank, [†]=significant at 0.05 or lower.

Generally, the mean ranks of the three groups indicate that none of these four objectives was considered not at all important. Comparison between students', graduates' and ESP teachers' ratings of the importance of the four stated objectives to

157

academic studies shows that graduates tended to place more importance than the other two groups on all four objectives. Statistically significant differences were found in the responses of the three groups to all four objectives, as shown in Table 5.1.

In terms of Objective 1, the post-hoc test indicated that the statistically significant difference was between graduates and students ($p = 0.000$). As for Objectives 2, 3 and 4, the significant differences were between graduates and students ($p = 0.000$; 0.000; 0.002) and between graduates and ESP teachers ($p = 0.002$; 0.001; 0.005). No significant differences were found between students and ESP teachers ($p = 0.203$; 0.319; 0.416).

The results of rating the relative importance of each of the four objectives of Writing & Grammar to the students' target careers are presented in Table 5.2. Again, graduates tended to place more importance than the other two groups on all four objectives. There were highly significant differences in the responses of the three groups to Objectives 2, 3 and 4. According to the post-hoc test, the statistically significant differences were between graduates and students ($p = 0.001$; 0.000; 0.000). The post-hoc test did not show any differences between students and ESP teachers ($p = 0.722$; 0.621; 0.117) or between graduates and ESP teachers ($p = 0.066$; 0.064; 0.499).

Table 5.2: A comparison of the three groups' perceptions of the importance of Writing & Grammar objectives for target careers

| | Groups | | | | |
| | Students | Graduates | Teachers | | |
Objectives of Writing & Grammar	*MR	MR	MR	Chi-Square	Sig.
1. To write a text using the acquired writing techniques	116.51	130.85	126.48	3.012	0.222
2. To produce good writing by taking care of spelling, punctuation, cursive handwriting and grammatical points	110.00	140.55	114.12	12.659	0.002[†]
3. To express ideas correctly and follow writing techniques	107.87	142.70	115.55	16.574	0.000[†]
4. To apply all grammatical points in both spoken and written English	107.75	139.82	131.52	14.177	0.001[†]

*MR=Mean Rank, [†]=significant at 0.05 or lower.

Listening & Speaking

In this component, which had four stated objectives, listening was integrated with speaking. Table 5.3 summarizes the results of rating the importance of these objectives for the students' academic studies. The responses of the three groups are combined and compared.

Table 5.3: A comparison of the three groups' perceptions of the importance of Listening & Speaking objectives for academic studies

Objectives of Listening & Speaking	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To understand any spoken or written instruction in English	113.05	141.00	93.48	14.788	0.001†
2. To form everyday statements and questions	120.85	130.61	119.52	3.081	0.233
3. To explain student's related problems to the teachers in spoken English with fluency of speech and accuracy of pronunciation	109.82	141.18	111.90	13.241	0.001†
4. To comprehend lectures in English and to take notes and dictation in English	117.45	138.14	82.20	15.900	0.000†

*MR=Mean Rank, †=significant at 0.05 or lower.

According to Table 5.3, the graduate respondents' ratings yielded the highest mean rank. The K-W test indicated that there was a significant difference in the mean ranks of the three groups with regard to rating the importance of Objectives 1, 3 and 4. Regarding Objectives 1 and 3, the post-hoc test showed that the statistically significant difference was between graduates and students ($p = 0.001$; 0.000). As for Objective 4, the significant differences were between graduates and students ($p = 0.001$) and between graduates and ESP teachers ($p = 0.002$).

The three groups also rated the importance of each of the four objectives of Listening & Speaking for the students' target careers, as summarized in Table 5.4. The mean ranks for the three groups suggest that the majority of them considered all four stated objectives of Listening & Speaking to be very important or quite important for the students' target careers. Comparing the mean ranks of the three groups indicates that those for graduates were higher than those of the other groups.

Table 5.4: A comparison of the three groups' perceptions of the importance of Listening & Speaking objectives for target careers

Objectives of Listening & Speaking	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To understand any spoken or written instruction in English	117.14	132.60	113.40	4.497	0.106
2. To form everyday statements and questions	108.70	139.99	124.90	14.357	0.001[†]
3. To explain student's related problems to the teachers in spoken English with fluency of speech and accuracy of pronunciation	113.21	134.81	125.30	6.886	0.032[†]
4. To comprehend lectures in English and to take notes and dictation in English	114.31	137.84	102.60	11.444	0.003[†]

*MR=Mean Rank, [†]=significant at 0.05 or lower.

Table 5.4 shows that there were statistically significant differences among the mean ranks of the three groups in terms of rating the importance of Objectives 2, 3 and 4. With regard to Objectives 2 and 3, the differences as measured by the post-hoc test were statistically significant between graduates and students ($p = 0.000$; 0.009). As for Objective 4, the significant differences were between graduates and students ($p = 0.003$) and between graduates and ESP teachers ($p = 0.009$).

Reading

This component had eight stated objectives. The results of rating the relative importance of each of these for the students' academic studies are presented in Table 5.5. An inspection of the mean ranks for the groups suggests that graduates tended to place more importance on the objectives than the other two groups did.

Table 5.5: A comparison of the three groups' perceptions of the importance of Reading objectives for academic studies

Objectives of Reading	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To read English with pleasure and interest and comprehend what you read	112.96	140.15	98.48	13.322	0.001[†]
2. To read faster and read in ways that meet the students' expectations	120.13	131.39	101.90	4.286	0.117
3. To understand and practice the English reading strategies	118.42	130.17	102.42	4.342	0.106
4. To talk and think about a text in new ways	114.19	137.71	104.05	8.886	0.012[†]
5. To formulate and articulate ideas more precisely	113.40	139.99	96.70	12.796	0.002[†]
6. To experience the connections between reading and writing	113.28	139.08	102.25	10.632	0.005[†]
7. To find out new ideas, facts and experiences	112.20	142.11	92.62	15.657	0.000[†]
8. To think in English and build linguistic competence as well as performance	119.55	132.34	101.12	4.133	0.071

*MR=Mean Rank, [†]=significant at 0.05 or lower.

Table 5.5 shows statistically significant differences between the groups' responses regarding Objectives 1, 4, 5, 6 and 7. In terms of Objectives 1, 4, 5 and 6, the post-hoc test indicated that the statistically significant differences were between graduates and students ($p = 0.001$; 0.008; 0.002; 0.004). As for Objective 7, the significant differences were between graduates and students ($p = 0.001$) and between graduates and ESP teachers ($p = 0.003$).

In the same way, the three groups rated the relative importance of each of the objectives of Reading to the students' target careers. The results, summarized in Table 5.6, indicate that responses to Objectives 2, 4, 5, 6, 7 and 8 differed significantly, with graduates placing more importance than students and ESP teachers on all eight objectives.

Table 5.6: A comparison of the three groups' perceptions of the importance of Reading objectives for target careers

Objectives of Reading	Groups				
	Students	Graduates	Teachers	Chi-Square	Sig.
	*MR	MR	MR		
1. To read English with pleasure and interest and comprehend what you read	121.25	128.15	112.38	1.470	0.479
2. To read faster and read in ways that meet students' expectations	117.95	133.34	104.65	6.382	0.041[†]
3. To understand and practice the English reading strategies	118.83	131.43	109.45	3.569	0.168
4. To talk and think about a text in new ways	112.68	139.35	104.40	11.635	0.003[†]
5. To formulate and articulate ideas more precisely	109.96	141.88	107.35	16.213	0.000[†]
6. To experience the connections between reading and writing	113.91	136.58	111.70	7.897	0.019[†]
7. To find out new ideas, facts and experiences	110.69	140.78	108.75	13.213	0.001[†]
8. To think in English and build linguistic competence as well as performance	113.81	137.56	107.12	9.302	0.010[†]

*MR=Mean Rank, [†]=significant at 0.05 or lower.

With respect to Objective 2, the post-hoc test showed that the statistically significant difference was between graduates and ESP teachers ($p = 0.003$). Regarding Objectives 4 and 5, the significant differences were between graduates and students ($p = 0.002; 0.000$) and between graduates and ESP teachers ($p = 0.015; 0.011$). As for Objectives 6, 7 and 8, the significant differences were between graduates and students ($p = 0.007; 0.001; 0.005$).

Medical Terminology
The Medical Terminology component had five stated objectives. The results of rating the importance of each of these to the students' academic studies are summarized in Table 5.7.

Table 5.7: A comparison of the three groups' perceptions of the importance of Medical Terminology objectives for academic studies

Objectives of Medical Terminology	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To use the new medical terms in all four skills of language	104.62	143.55	130.50	20.285	0.000†
2. To use the medical terms in professional communication	97.29	145.28	165.35	38.510	0.000†
3. To recognize all body systems with their names and medical courses	117.64	130.13	123.50	2.282	0.320
4. To comprehend and write short medical situations using the medical terms	105.08	147.14	108.75	23.660	0.000†
5. To understand, read and write short medical reports	104.94	144.54	123.35	19.467	0.000†

*MR=Mean Rank, †=significant at 0.05 or lower.

Table 5.7 shows that there were significant differences in the three groups' ratings with regard to four out of the five objectives. In terms of Objectives 1, 2 and 5, the post-hoc test indicated that the differences were statistically significant between graduates and students ($p = 0.000$; 0.000; 0.000). As for Objective 4, the significant differences were between graduates and students ($p = 0.000$) and between graduates and ESP teachers ($p = 0.010$).

The three groups also rated the importance of each of the five objectives of Medical Terminology for the students' target careers. The results are presented in Table 5.8.

Table 5.8: A comparison of the three groups' perceptions of the importance of Medical Terminology objectives for target careers

Objectives of Medical Terminology	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1.To use the new medical terms in all four skills of language	112.28	134.76	131.10	10.312	0.006†
2.To use the medical terms in professional communication	110.08	141.04	111.10	17.770	0.000†
3. To recognize all body system with their names and medical courses	110.95	137.24	126.00	12.668	0.002†
4. To comprehend and write short medical situations using the medical terms	107.80	143.17	113.45	21.689	0.000†
5. To understand, read and write short medical reports.	119.35	130.70	110.20	3.899	0.142

*MR=Mean Rank, †=significant at 0.05 or lower.

This shows significant differences in the groups' ratings with regard to four of the five objectives. For Objectives 1 and 3, as calculated by the post-hoc test, the statistically significant difference was between graduates and students (p = 0.002; 0.000). In terms of Objectives 2 and 4, the significant differences were between graduates and students (p = 0.000; 0.000) and between graduates and ESP teachers (p = 0.010; 0.011).

Summary

To summarize, the statistical analysis above indicates that there were significant differences[1] between the graduates and the students and between the graduates and the ESP teachers, in rating the importance of the stated objectives of the course components for students' academic studies and target careers. However, there were no significant differences in responses between the students and the ESP teachers. It would appear, therefore, that the perceptions of the students and of the ESP teachers were relatively close to each other but significantly different from those of the graduates. It should be noted that the mean ranks of the graduates were significantly higher than those of the students and of the ESP teachers. This means that the graduates tended to rate almost all objectives as very important, unlike the students and the ESP teachers, who appear to have been somewhat more selective in their ratings.

Comparatively speaking, the three groups' mean ranks in rating the importance of the stated objectives for students' target careers were higher than their mean ranks in rating the importance of these objectives for their academic studies. This probably means that the stated objectives of each language component were more appropriate to the students' target careers than to their academic studies. Despite this, it seems reasonable to conclude that in general, there was a considerable degree of correspondence between the planned curriculum (stated objectives) and the students', graduates' and teachers' perceptions of students' needs. However, this does not mean that what was planned was necessarily or could have been taught or learned. The extent to which the course objectives were realised is investigated elsewhere in this chapter (section 5.2.1.3). Meanwhile, the following subsection considers the roles of ESP teachers and their preparedness for these.

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[1] It is important to note that for all these differences the measure of effect size is smaller than 0.26, suggesting that the statistically significant results may be due mainly to the large sample size rather than to major differences between the groups.

5.1.1.4 ESP Teachers' Qualifications, Roles and Training

'It is teachers themselves who ultimately determine the success of a program' (Richards, 2001: 209). This evaluative focus on ESP course teachers' qualifications and performances is considered under the key area of Curriculum Specifications because, according to GDHCI (2007), a specific teaching workforce is required to deliver the four components of the course. The ESP course description for each of these components states that members of the teaching staff should hold PhD, master's or bachelor's degrees in English language. The specification gives no further details, such as levels of English language proficiency, whether teachers should be native or non-native speakers, teaching experience, or professional qualifications in the teaching of English as a foreign language (TEFL), ESP etc.

As of September 2008, the ESP courses in the 10 HSCs each had an average of 7 members of teaching staff. There were 72 English language teachers in total delivering these courses, of whom 35 held MAs in English language and literature, 13 held MAs in the teaching of English to speakers of other languages (TESOL), 9 held MAs in applied linguistics, 7 held MAs in TEFL and 8 held bachelor's degrees in ELT. These members of teaching staff varied widely in experience: from 1 to 28 years in GE teaching and from 1 to 13 years in ESP teaching[1].

Language Teachers' Roles

On the 13th of November 2006, the GDHCI established a committee to oversee the revision and development of the content of the textbook for each course component. Although six of the 72 ESP course teachers sit on this committee, all the other important roles of ESP practitioners are out of questions. These six members are required to meet once a year, usually at the beginning of the academic year, in order to assess the appropriateness of the textbooks, and they may occasionally suggest alternatives. This unsystematic and unplanned assessment of textbooks is not based on any set of predefined evaluation criteria, but rather on the members' impressions of the material, or what Cunningsworth (1995: 1) calls 'impressionistic overview'. For example, in one of its annual meetings, the committee decided that 'the Grammar textbook currently used is quite useful for the 1st semester, but we should select a textbook that is more relevant to health science students in the 2nd semester'. In

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[1] (from the GDHCI internal documents)

another meeting, the committee concluded: 'We should keep using the current textbooks for reading, writing and listening. However, we need to ask the author to delete some of the repetitious parts in these textbooks and include new content instead of these parts'[1]. Surprisingly, the nature and form of this new content was not explained or described, but was left without any further detail. As McGrath (2002: 40) warns, 'because the choice of a coursebook can have such an important impact on learners and teachers, the decision-making process needs to be careful and systematic'. Being already overloaded with teaching hours (an average of 22 per week), ESP teachers may not show initiative with respect to generating culture-specific in-house materials themselves, although they should be aware that such material 'potentially has a dynamic and maximal relevance to local needs' (Sheldon, 1988: 238).

Language Teachers' Training
'Teachers in an institution may not always have the particular knowledge and skills a program needs, so it may be important to select staff for specialized training to meet these needs' (Richards, 2001: 213). At the time of this study, such support for the ESP course teachers seemed to have been neglected. They were normally specialists in English literature, applied linguistics, TESOL or TEFL who had never been trained in the teaching of ESP, let alone of ME.

In their questionnaire (Q2), the ESP course teachers were asked the following question: '*Have you ever joined an ESP (or Medical English) teacher-training course?*' All 20 respondents answered '*No*'. During the interviews, while admitting that they had received no such training, all six language teachers agreed on the importance of this kind of course for developing their teaching skills, performance and subject-matter knowledge. Four of the five administrator interviewees (1, 2, 4 and 5) claimed that they were unable to release teachers for such training courses because of a chronic shortage of teaching staff. These findings appear to support the claims of McDonough and French (1981b: 5) and Kennedy (1983: 74) that many ESP programmes overlook teacher-training provision.

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[1] These (translated) quotations were taken from the GDHCI internal documents.

Evaluating Teaching

It is very important that teachers' performance be regularly evaluated in order to provide quality teaching in any programme (Richards, 2001: 220). However, the interviews conducted with the ESP course administrators and teachers demonstrated that there was no formal evaluation of language teachers' performance. Administrator 3 said: '*We make some visits to classrooms in order to evaluate teachers... We also sometimes ask two students from each class to assess their English language teachers' work*'. However, all six ESP course teachers interviewed stated that they had never been formally evaluated. One (Teacher 5) claimed to have '...*no idea about any kind of evaluation*', while Teacher 6 said: '*I have never heard about any evaluation, and I am not aware if there is any report or evaluation which concerns our performance*'.

Summary

In summary, the focal point of language teachers' qualifications seems to constitute a good feature of the current ESP course. However, the other points investigated here, concerning teachers' roles, training and evaluation, appear to constitute weaknesses of the ESP course.

5.1.2 Teaching and Learning Materials and Aids

At the time of the study, none of the HSC ESP courses had a self-access learning centre. However, they did enjoy the use of other teaching aids and facilities such as course textbooks, audio-visual materials and language laboratories. Due to time and space constraints, the focus of evaluation in this section is on the course textbooks being used, in view of the apposite remark of Sheldon (1988: 237): 'Whether we like it or not, these [textbooks] represent for both students and teachers the visible heart of any ELT programme'. There follows a closer examination of the appropriacy of the primary teaching and learning materials, namely textbooks, which were adapted to meet the stated objectives of the four course components. This is followed by an investigation of the use of supplementary materials such as audio-visual aids inside the ESP classrooms.

5.1.2.1 Evaluation of Course Textbooks

The Three Groups' Evaluations of the Course Textbooks

In the interviews, five language teachers indicated that one of the problems their students faced in the ESP course was the inappropriateness of the textbooks. One (Teacher 3) cogently criticized some of the textbooks: "*I am not happy with the textbooks for writing, listening and speaking, grammar and reading... They include many topics that are not related to the students' target careers*". Another (Teacher 4) commented: "*I teach listening and speaking... The textbook for this component is very difficult... not appropriately graded. It is also non-motivating and inappropriate to our students needs*". Similarly, Teacher 1 observed that "*most of the topics in the listening and speaking textbook are based on western culture, which is difficult for our students to understand*". A teacher of reading (Teacher 5) stated that "*the level of the students is far below the level of the reading textbook*". Finally, Teacher 2 pointed out that "*the textbooks are sourced from different companies. There is no integration at all between the different skills*".

When interviewed, five students and five graduates also criticized the textbooks for lack of direct relevance to their specialism and for being above their language level. Student 1 complained: "*The textbooks are more suitable for those who have a solid command of general English, which we do not have*". Student 2 added that "*the textbooks are very difficult... I cannot understand everything, particularly in listening & speaking, and the reading classes*". Graduate 3 expressed a similar opinion: "*The textbooks were much harder than our English language level when we started studying them... There was a big gap between our level and the textbooks*".

The questionnaire respondents were all asked to evaluate, in general terms, the appropriateness of the textbooks being used on the ESP course (Q9). Table 5.10 summarizes all three groups' evaluations in frequencies and percentages, with a calculation of the average percentage for each evaluation term across the groups.

Table 5.10: Users' evaluations of the ESP textbooks (frequency and percentage)

Evaluation Terms	Students		Graduates		Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Very appropriate	17	14.00	7	6.60	2	10.00	10.20
3=Quite appropriate	39	32.50	32	30.18	4	20.00	27.56
2=Not very appropriate	50	41.66	54	50.94	8	40.00	**44.20**
1=Not appropriate at all	14	11.66	13	12.26	6	30.00	17.97

The average percentages in the final column give a comprehensive picture of the groups' collective evaluations of the appropriateness of the textbooks. Over 44 per cent of all respondents thought the textbooks were not very appropriate and nearly 18 per cent considered them not to be appropriate at all. Conversely, only 10 per cent of respondents believed the textbooks to be very appropriate. It is worth noting that there was no statistically significant difference between students, graduates and language teachers in their evaluations of the textbooks ($x^2 = 4.838$; $df = 2$; $p = 0.089$).

The same three groups (120 students, 106 graduates and 20 language teachers) also indicated the extent of their agreement or disagreement with the view that the content of the course textbooks was above the students' English language level (Q12g). Table 5.11 presents all three groups' responses in frequencies and percentages, with a calculation of the average percentage for each agreement/disagreement term across the groups.

Table 5.11: Questionnaire responses as to whether the content of the textbooks was above the students' English language level (frequency and percentage)

Agreement/Disagreement Terms	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly Agree	38	31.66	27	25.47	7	35.00	30.71
3=Agree	51	42.50	58	54.71	11	55.00	**50.73**
2=Disagree	19	15.83	16	15.09	1	5.00	11.97
1=Strongly Disagree	12	10.00	5	4.71	1	5.00	6.57

Table 5.11 shows that a high percentage of respondents (over 80%) agreed or strongly agreed that the textbook content was above the students' English language level, as compared with only 18% who disagreed or strongly disagreed. Again, there was no significant difference between the responses of the three groups ($x^2 = 1.200$; $df = 2$; $p = 0.549$).

The introductions to the textbooks indicate that they were designed mainly for students with an intermediate level of English. However, the above results show that their content was found to be difficult for the HSC students, because it did not generally match their level of English. This suggests that the English language proficiency of most students beginning the course was below the intermediate level. This assessment is supported by data from the interviews with language teachers and administrators, who stated that the majority of their students joined the course with very poor English (see section 5.1.1.1). This is strongly consistent with the observation of Waters (1993: 15) that 'in recent years, the audience for ESP has begun to include a much higher percentage of learners with only a limited command of English'.

Generally speaking, the results of the interviews and questionnaires support those of the two-stage evaluation presented earlier. However, similar conclusions and more reliable evaluations should be expected only when the predefined evaluation parameters are agreed upon and used by all respondents.

5.1.2.2 Supplementary Materials

The use of supplementary materials such as audio and video tapes, overhead transparencies and computers is very important in teaching and learning ESP (Dudley-Evans and St John, 1998: 170). Therefore, it was necessary to see to what extent such supplementary materials were used in the ESP classrooms. The questionnaire respondents were asked (Q12i) whether they agreed that supplementary materials were used in ESP classes. Table 5.12 summarizes the results.

Table 5.12: Questionnaire responses as to whether supplementary materials were used in ESP classrooms (frequency and percentage)

Agreement/Disagreement Terms	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly Agree	10	8.33	2	1.88	0.00	0.00	3.40
3=Agree	26	21.66	14	13.20	1	5.00	13.28
2=Disagree	39	32.50	62	58.49	16	80.00	**56.99**
1=Strongly Disagree	45	37.50	28	26.41	3	15.00	26.30

The average percentages in Table 5.12 indicate that over 83% of all respondents disagreed or strongly disagreed with the claim that supplementary materials such as audio-video tapes, overhead transparencies and computers were used in their ESP classrooms, while only 17% agreed or strongly agreed. There was no statistically significant difference between the responses of the three groups ($x^2 = 0.105$; $df = 2$; $p = 0.949$).

Summary

According to the above discussion, the inappropriateness of the Grammar, Writing (I), Listening and Speaking (I) & (II) and Reading textbooks being used, as well as the failure to use supplementary materials (e.g. audio-visual tapes and computers) in classrooms can be said to constitute weaknesses of the ESP course.

5.1.3 Classroom Activities and Methodologies

Following the evaluation framework of the current study (Table 2.3), the potential classroom categories include teaching methodologies and the motivation and participation of students. The first category focuses on the activities suggested by the course description and the methodologies employed by the ESP teachers, while the second is concerned with the extent of students' motivation and participation within the classroom.

5.1.3.1 Teaching Methodologies

The students' and graduates' evaluation of the course textbooks indicated that a majority of them (131 of 226) were unsatisfied with these materials (Table 5.10). This may be because students used differing criteria to evaluate their appropriateness. For example, a majority of students may have been unsatisfied with the methodologies employed in teaching the content of the books. Teaching methodologies here are 'what practicing teachers actually do in the classroom in order to achieve their stated or unstated teaching objectives' (Kumaravadivelu, 2006: 84).

According to the course description under study, the main classroom activities that should be employed in teaching the ESP components are pair-work and group-work (GDHCI, 2007: 2). This implies that the teachers should adopt a communicative methodology whereby students are asked to work in pairs or groups. Although the course descriptions of the Medical Terminology and Writing & Grammar components clearly state that students should work in pairs, the corresponding textbooks were not found to include explicit instructions encouraging students to work in pairs or groups, such as 'Compare your answer with your partner' or 'Work in pairs'.

In order to establish to what extent such activities were employed in teaching the course components, questionnaire respondents were asked to state their level of agreement with the proposition that students were given the opportunity to work in groups or pairs (Q12j). Table 5.13 below shows that nearly 70 per cent of the students and 79 per cent of the graduates disagreed or strongly disagreed that they were given the opportunity to work in pairs or small groups, whereas the ESP teachers neither disagreed nor strongly disagreed.

172

Table 5.13: Questionnaire responses – Are students given the opportunity to work in groups or pairs?

Agreement/Disagreement Terms	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly Agree	18	15.00	9	8.49	11	55.00	26.16
3=Agree	17	14.16	13	12.26	9	45.00	23.80
2=Disagree	62	51.66	64	60.37	0.00	0.00	**37.34**
1=Strongly Disagree	23	19.16	20	18.86	0.00	0.00	12.67

The K-W test indicated that there was a statistically significant difference between the responses of three groups ($x^2 = 38.984$; $df = 2$; $p = 0.000$). The post-hoc test showed that the statistically significant differences were between ESP teachers and students ($p = 0.000$) and between ESP teachers and graduates ($p = 0.000$). The ES indicated that these differences were not substantial (ES = 0.45, 0.52 respectively) and there was no significant difference between the students and the graduates ($p = 0.300$). A plausible interpretation of these discrepancies between teachers and their students is that teachers may sometimes have asked their students to work in pairs or groups, but in practice many were perhaps unsuccessful in organizing such classroom activities. The success of pair- and group-work depends on careful and effective organization (Ur, 1996: 233). It is possible that issues like class size and time allocated do not usually help teachers to conduct group/pair work successfully.

A sample of records for ten ESP classes indicates that the class size ranged from 23 to 29 students, with an average of 26 students per class. It can be tentatively suggested that such class sizes do not normally allow for very successful participation in group or pair work. This is supported by Ferris (1998: 300), who concludes that larger classes are less likely to allow small group work than are smaller classes. In summary, as Richards (2001: 208) notes, 'class size affects the quality of instruction'. Oladejo (1993: 11) points out that in developing countries, large class size is a well-known problem for ESP learning. However, observation of classroom practices would have helped to confirm this.

The problem of inappropriate teaching methodology employed by some language teachers was identified by some students and graduates when they were asked about the difficulties they encountered in learning English in their language courses (Q9 in Interviews and Q13 in Questionnaires). For example, one interviewee (Student 3) stated that "*there is no actual practice in listening and speaking classes... The teacher just gives some instruction and then asks us to do the exercises*". Student 4 added that "*the method of explaining and clarifying the lesson is not good at all... Some textbooks are good but the teachers do not explain the important points clearly... They also do not make the lessons very interesting*". A third student (5) complained: "*I think the reading textbook is complicated... What is worse, the teaching methodology employed in reading classes is not right*". Graduate 1 reported that "*some* [teachers] *used spoon-feeding methods of teaching*". Graduate 4 also complained that "*the grammar textbook was very difficult... I think this was because the teacher used an inappropriate style when teaching it*".

The questionnaire respondents were asked to indicate how far they agreed or disagreed with the claim that the teaching methodologies used by language teachers were appropriate and useful (Q12h). Table 5.14 summarizes their responses to this question.

Table 5.14: Questionnaire responses as to whether teaching methodologies were appropriate and useful (frequency and percentage)

Agreement/Disagreement Terms	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly Agree	13	10.80	9	8.49	2	10.00	9.76
3=Agree	16	13.33	18	16.98	6	30.00	20.10
2=Disagree	58	48.33	52	49.05	11	55.00	**50.79**
1=Strongly Disagree	33	27.50	27	25.47	1	5.00	19.32

Table 5.14 shows that a high percentage of respondents (over 70%) disagreed or strongly disagreed that the teaching methodologies used by language teachers were appropriate and useful, whereas only 30% thought the contrary. There was no significant difference between the responses of the three groups in terms of whether the teaching methodologies were appropriate and useful ($x^2 = 4.363$; $df = 2$; $p =$

0.113). This finding appears to undermine the argument that 'former students who evaluate courses with the added perspective of time will differ systematically from students who have just completed a course when evaluating teaching effectiveness' (Marsh, 1987: 275).

However, it was necessary to investigate to what extent language teachers were helpful and successful in their teaching, because it is they who adopt and employ teaching methodologies. In the interviews, two recurring issues were raised by four students (1, 3, 4 and 5) and five graduates (1, 2, 3, 6, and 7) concerning the classroom performance of their language teachers. The first issue was that some teachers were unable to convey the information clearly. Fifteen students and 18 graduates also used the open-ended questionnaire item (Q 13) to report this as one of the difficulties that they had encountered in learning ESP at the HSCs. In the interviews and questionnaires, some student and graduate respondents also complained about the unintelligible accents of some language teachers.

Student 3 explained: "*There is a problem associated with some teachers who are from East Asia... I cannot understand what they are saying when they explain the lesson because their speech is unintelligible*". Similarly, Student 5 admitted: "*To be honest, I don't understand what the teacher is talking about, particularly in listening and speaking classes, because the way he speaks is not clear*". One of the five graduate interviewees (Graduate 3) expressed the same concern: "*The teaching members of staff were non-native speakers of English... Some did not speak fluently... They often mispronounced English words*". The difficulty of not comprehending the speech of language teachers was also pointed out by 33 students and 27 graduates in the open-ended questionnaire item (Q13).

The students, graduates and teachers who participated in the questionnaire survey were asked whether they agreed that the ESP teachers were helpful in their teaching (Q12L). Table 5.15 summarizes the results.

175

Table 5.15: Questionnaire responses as to whether ESP teachers were helpful in their teaching (frequency and percentage)

Agreement Rate	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly Agree	17	14.00	15	14.00	10	50.00	26.00
3=Agree	52	43.30	32	30.18	10	50.00	**41.16**
2=Disagree	38	31.70	37	34.90	0.00	0.00	22.20
1=Strongly Disagree	13	10.80	22	20.75	0.00	0.00	10.51

Table 5.15 shows that the majority of respondents (about 67%) agreed or strongly agreed that language teachers were helpful. However, there was a statistically significant difference between the responses of the three groups ($x^2 = 25.262$; $df = 2$; $p = 0.000$). The post-hoc test indicated that the difference was statistically significant between ESP teachers and students ($p = 0.000$) and between ESP teachers and graduates ($p = 0.000$). The ES showed that these differences were not substantial (ES = 0.36, 0.41, respectively). These significant differences could be attributed to the fact that more than 42 per cent of students and 55 per cent of graduates disagreed or strongly disagreed, whereas all ESP teachers agreed or strongly agreed.

While one can argue against the reliability of students' ratings, since they are sometimes 'more indicative of students' needs or desires than they are of teaching quality' (Henning, 1987: 150), the results above suggest that broadly speaking, the methodologies employed by language teachers were inappropriate. It seems that a teaching methodology commonly employed was the traditional teacher-centred approach where teachers considered themselves transmitters of information and students were rarely given opportunities to interact or participate. This could have been verified if another research instrument (e.g. classroom observation) had been used.

5.1.3.2 Students' Motivation and Participation in the ESP Classroom

It is suggested that good teachers can compensate for any deficiencies in the curriculum or the materials they use in their teaching (Richards, 2001: 209) and that their 'skills in motivating learners should be seen as central to teaching effectiveness' (Dornyei, 2001b: 116).

Four of the six student interviewees said that their language teachers did not always encourage them to participate. Two of the seven graduate interviewees also felt that they had been unmotivated in English classes because they thought that their teachers encouraged the strong students more than the weak ones. However, when interviewed, four language teachers blamed their students for being unwilling to participate in classroom activities, having failed to prepare properly for their lessons. It may have been that some students tended not to see the point of working hard because their teachers always regarded them as passive and therefore did not encourage them to participate. Still, Lee and Ng (2010: 312) conclude, there are many factors which encourage student unwillingness to participate in language classrooms, including teacher interaction strategy, lesson objectives and activities, and the proficiency level of the students.

Questionnaire respondents were asked whether they agreed that the ESP teachers motivated the students in English classes (Q12k). The majority of students, graduates and language teachers agreed or strongly agreed with that view (Table 5.16).

Table 5.16: Questionnaire responses as to whether ESP teachers motivated the students in English classes (frequency and percentage)

Agreement/Disagreement Terms	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly Agree	24	20.00	16	15.09	15	75.00	**36.69**
3=Agree	49	40.83	39	36.79	5	25.00	**34.20**
2=Disagree	33	27.50	28	26.41	0.00	0.00	17.97
1=Strongly Disagree	14	11.66	23	21.69	0.00	0.00	11.11

The K-W test indicated that there were significant differences between the responses of students, graduates and teachers $(x^2 = 30.714; df = 2; p = 0.000)$.The

177

differences, as measured by the post-hoc test, were statistically significant between ESP teachers and students ($p = 0.000$) and between ESP teachers and graduates ($p = 0.000$). This was expected, because no teachers disagreed with the proposition. However, the ES showed that these differences were not substantial (EZ = 0.41 and 0. 47 respectively).

Summary

Since actual classroom observations were not conducted to investigate the above categories or subcategories, it would be difficult to present a clearer picture of them. However, the above findings suggest that the teaching methodologies and the extent of students' interaction, motivation and participation were not appropriate, at least in some classes, and that they needed improvement. These findings appear to support Waters (1993: 16), who found that ESP was being 'increasingly taught to large classes of poorly-motivated learners by inexperienced teachers with very limited resources'.

5.1.4 Language Assessment Procedures

The area of assessment procedures constitutes the last part of the investigation into the appropriacy of the ESP course, which comprised four components (Writing & Grammar, Listening & Speaking, Reading, and Medical Terminology) in each of its two semesters. Every component was graded out of 100 marks in each semester. A student's final grade in each language component was the subtotal of the final test mark out of 50 plus another 50 marks for the continuous assessment element throughout the course, including marks for quizzes and midterm tests, oral presentations, participation and class behaviour. More specifically, the distribution of marks for each component in each semester was as follows: 10 marks for two quizzes (5 each), 30 marks for two monthly tests (15 each), 5 marks for oral presentations, 5 marks for participation and class behaviour, and 50 marks for the final examination. A student's final percentage mark for the whole ESP course was then calculated by adding the four marks together and dividing the total by four. Each student needed at least 60 marks to pass at the end of each semester. The usual grading system was: less than 60 = fail; 60-69 = pass; 70-79 = good; 80-89 = very good; 90-100 = excellent.

All six language teacher interviewees showed dissatisfaction with the current assessment system, for various reasons. Teacher 1 complained: "*We have two quizzes and two monthly tests in each semester... This is too taxing... I mean it causes both teachers and students a lot of tiredness and it is time-consuming*". Teacher 2's criticism was that "*the current assessment scheme leads our students to focus completely on the English course and ignore other subjects in the first year programme*". He explained: "*the students' assessment in each language component depends largely on three tests* [two monthly and one final] *and two quizzes... This means that students have 12 tests and 8 quizzes in each semester... so they may well be under a lot of stress for the whole time and this could affect their academic performance, not only in language components but also in other academic subjects*".

When five administrators were interviewed, only Administrator 2 thought that the assessment procedures used in the ESP course were inappropriate. However, there appeared to be no good reason why students could not be provided with their grades in each language component, along with their average final grades. At least, they themselves would be able to revise the calculations.

To overcome the danger that students would neglect certain components, Administrator 1 (a proponent of the existing assessment procedures) called for the pass mark to apply to each language component, in addition to the overall average grade. However, assigning a pass mark for each component would not be of great help if the negligence was due to difficulties and problems in the assessment methodology per se.

In interview, three students and four graduates also felt that the course assessment procedures were inappropriate. Student 3 objected that "*having many tests and quizzes makes me tense and nervous... I feel worried about and possessed by getting many marks*". Student 4 also observed that "*the course assessment scheme creates the idea that I should get as many marks as I can, regardless of how much language I actually learn*". Similarly, Graduate 2 indicated that "*the assessment system makes us care more about marks than about knowledge*".

The questionnaire participants were asked about whether the assessment procedures currently used in the course were appropriate to students' needs (Q12m). More than 95% of participants disagreed or strongly disagreed that the course assessment procedures were appropriate, whereas only 4.45% agreed or strongly agreed (Table 5.17).

Table 5.17: Questionnaire responses as to whether the assessment procedures used in the course were appropriate to students' needs (frequency and percentage)

Agreement/Disagreement Terms	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly Agree	3	2.50	2	1.88	0.00	0.00	1.46
3=Agree	4	3.33	6	5.66	0.00	0.00	2.99
2=Disagree	9	7.50	14	13.20	6	30.00	16.90
1=Strongly Disagree	104	86.66	84	79.24	14	70.00	**78.63**

The K-W test did not show any statistically significant difference between the responses of students, graduates and teachers ($x^2 = 3.510$; $df = 2$; $p = 0.173$).

Summary

Broadly speaking, the interview and questionnaire findings suggest that the ESP course assessment scheme on the whole constitutes a weak point of the course. Gaffney and Mason (1983: 98) note that inappropriate assessment procedures 'tend seriously to undermine program effectiveness'. An investigation of the effectiveness of the ESP course is therefore due.

5.2 EFFECTIVENESS OF THE ESP COURSE

To what extent is the ESP course effective?

This question was directed to an investigation of the extent to which the ESP course had been effective in improving its students' English language proficiency in general and in providing them with the skills needed in order to communicate effectively in the target situation. In answering this question, the focus is mainly on the achievement of course objectives, learning outcomes (students' language achievement) and the responsiveness of the course to students' needs.

This section starts with an investigation of the perceptions of ESP course stakeholders (current students, graduates, language teachers and administrators) on its effectiveness. This is followed by a study of students' achievement grades in the four course components.

5.2.1. Course Stakeholders' Perceptions

The experience of course stakeholders or participants is the key to unlocking the 'black box' of course quality (Kiely and Rea-Dickins, 2005: 11). Their opinions of a course are sometimes used as an outcome measure (Weiss, 1972: 41). This kind of measure is strongly recommended by Sharp (1991: 238) when he urges practitioners to consider course effectiveness from a broad standpoint. Therefore, this section presents findings related to the perceptions of major stakeholders in the ESP course on the importance of the course, their satisfaction with it in terms of needs fulfilment, the achievement of objectives and their general evaluations.

To begin, the three stakeholder groups (students, graduates and language teachers) were asked in the questionnaire about how they saw the importance of the ESP course both to the students' academic studies and to their target careers (Q4 & Q5). The average percentages in Table 5.18 and Table 5.19 indicate that over 90 per cent of respondents considered the course very important or quite important, both to the students' academic studies and to their target careers, whereas less than 9 per cent assessed it as less important than this.

Table 5.18: Questionnaire responses on the importance of the course to students' academic studies (frequency and percentage)

Importance Rating	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Very important	72	60.00	75	70.75	14	70.00	66.91
3=Quite important	27	22.50	21	19.81	6	30.00	24.10
2=Not very important	17	14.16	7	6.60	0.00	0.00	6.92
1=Not important at all	4	3.33	3	2.83	0.00	0.00	2.05

Table 5.19: Questionnaire responses on the importance of the course to students' target careers (frequency and percentage)

Importance Rating	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Very important	74	61.66	64	60.37	7	35.00	52.34
3=Quite important	31	25.83	30	28.30	12	60.00	38.04
2=Not very important	11	9.16	9	8.49	1	5.00	7.55
1= Not important at all	4	3.33	3	2.83	0.00	0.00	2.05

The K-W test did not show any significant differences between the groups regarding their perceptions of the importance of the course to the students' academic studies ($x^2 = 4.069$; $df = 2$; $p = 0.131$). Similarly, there was no significant difference between the groups concerning their perceptions of the importance of the course to the students' target careers ($x^2 = 2.892$; $df = 2$; $p = 0.236$). The findings seem to imply that the ESP course was seen as needed to help students not only in their academic studies but also in their future careers.

Generally speaking, the majority of the three groups, particularly the students and graduates, appeared to recognize the value of the ESP course and that their success in both academic studies and target careers was likely to be partially dependent upon

their ability to use English as a medium of instruction at the HSCs and of communication at work (in hospitals). The implication is that they might be encouraged to take their ESP course seriously; therefore they would be more likely to accept recommended changes for improving it, i.e. to make it more effective and successful.

5.2.1.2 Fulfilment of Students' Language Needs

The same three participating groups were asked in questionnaire item Q12a whether they thought that the course had met the students' language needs so that they could function satisfactorily in their academic studies. Table 5.20 shows that the majority of the three groups (about 70%) replied positively and 30% negatively. The K-W test did not show any significant differences between the groups ($x^2 = 3.587$; $df = 2$; $p = 0.166$).

Table 5.20: Questionnaire responses as to whether the course had met students' language needs to function in their academic studies

Satisfaction Rate	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly agree	6	5.00	12	11.30	2	10.00	8.76
3=Agree	69	57.50	53	50.00	15	75.00	60.83
2=Disagree	32	26.70	31	29.20	2	10.00	21.96
1=Strongly disagree	13	10.80	10	9.40	1	5.00	8.40

The three groups were also asked whether they agreed that the course had met the students' language needs so that they could function satisfactorily in their target careers (Q12b). About 56% of respondents felt that the course had fulfilled these language needs and 44% did not (Table 5.21). There was no statistically significant difference between the groups ($x^2 = 0.694$; $df = 2$; $p = 0.723$).

Table 5.21: Questionnaire responses as to whether the course had met students' language needs to function in their target careers

Satisfaction Rate	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Strongly agree	13	10.80	15	14.20	1	5.00	10.00
3=Agree	54	45.00	45	42.50	10	50.00	45.83
2=Disagree	43	35.80	35	33.00	5	25.00	31.26
1=Strongly disagree	10	8.30	11	10.40	4	20.00	12.90

Comparatively speaking, the statistical analysis indicates that the percentage of respondents who agreed that the course had met the students' functional language needs in respect of their academic studies was considerably higher than for the corresponding response regarding their target careers.[1] This suggests that students, graduates and teachers were likely to be less satisfied with the existing course regarding its responsiveness to the language needs of those in the target careers. This also appears to imply that the stated objective of the ESP course, i.e. to meet students' current and future English language needs, had not actually been fully met by the teaching and learning taking place on the course. However, this tentative conclusion needs to be supported by examining the specific objectives of the four components of the course to establish how far these have been achieved. This is considered next.

5.2.1.3 Achievement of Objectives of Course Components

The questionnaire (Q11) asked the three groups of participants to indicate to what extent they felt that the stated objectives of each course component had been achieved, using a four-point scale: 4=fully achieved, 3=partially achieved, 2=minimally achieved, 1=not achieved at all.[2] The responses were analysed using the K-W test (followed by the Mann-Whitney test) in order to assess the statistical significance of the resulting differences among the three groups of data. Due to space limitations, frequencies and percentages are not given here. The results related to each course component are presented below.

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[1] Both kinds of language needs have been discussed thoroughly in Chapter Four.
[2] In a recent study, Atherton (2006: 16) used this procedure to assess the effectiveness of the EAP course at Kingston University, UK.

Writing & Grammar

The three groups' ratings of the four objectives of the Writing and Grammar component are statistically compared and summarized in Table 5.22. Although they were all considered important both for students' academic studies and for their target careers (see Tables 5.1 & 5.2), the mean ranks suggest that they were not seen as fully achieved.

Table 5.22: A comparison of the three groups' views on the achievement of Writing & Grammar objectives

Objectives of Writing & Grammar	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To write a text using the acquired writing techniques	114.88	126.50	159.30	7.854	0.020[†]
2. To produce good writing by taking care of spelling, punctuation, cursive handwriting and grammatical points	115.02	123.92	172.20	12.289	0.002[†]
3. To express ideas correctly and follow writing techniques	112.85	126.05	173.90	14.268	0.001[†]
4. To apply all grammatical points in both spoken and written English	119.45	122.65	152.30	4.196	0.123

*MR=mean rank, [†]=significant at 0.05 or lower.

The mean ranks of the language teachers suggest that the majority thought that Objectives 2 and 3 had been partially achieved, while Objectives 1 and 4 had been minimally achieved. The mean ranks of students and graduates suggest that both groups felt that all four objectives had been minimally achieved.

Table 5.22 shows that the scores of the language teachers on the four objectives were generally higher than those of the students and graduates. The graduates in turn scored more highly than the students. The K-W test indicated that there were statistically significant differences in the responses of the three groups to Objectives 1, 2 and 3.

Regarding Objective 1, the post-hoc test showed that the statistically significant difference was between students and language teachers ($p = 0.008$). As for Objectives 2 and 3, the significant differences were between students and teachers ($p = 0.001$; 0.000) and between graduates and teachers ($p = 0.002$; 0.002). However, it is important to note that for all these objectives the effect size was less than 0.30, suggesting that the statistically significant results may have been due mainly to the large sample size, rather than to major differences between the groups.

Listening & Speaking

In the same way, the three groups were also asked to rate how well they thought that the four stated objectives of Listening & Speaking had been met. The results are summarized and compared in Table 5.23. Overall, the mean ranks suggest that these objectives were not fully achieved or even partially achieved, although they were seen as important to academic studies and target careers (see Tables 5.3 & 5.4).

Table 5.23: A comparison of the three groups' views on the achievement of Listening & Speaking objectives

Objectives of Listening & Speaking	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To understand any spoken or written instruction in English	119.14	121.25	161.55	6.975	0.031[†]
2. To form everyday statements and questions	120.34	118.97	166.50	8.850	0.012[†]
3. To explain students' related problems to the teachers in spoken English with fluency of speech and accuracy of pronunciation	113.17	126.50	169.60	12.509	0.002[†]
4. To comprehend lectures in English language; take notes and dictation in English language	121.32	120.92	150.25	3.468	0.177

*MR=mean rank, [†]=significant at 0.05 or lower.

Table 5.23 shows that there were significant differences in the mean ranks of the three groups with regard to Objectives 1, 2 and 3. The post-hoc test indicated that for Objectives 1 and 2 the statistically significant differences were between students and teachers ($p = 0.010$; 0.006) and between graduates and teachers ($p = 0.012$; 0.003), while in the responses related to Objective 3, they were between students and teachers ($p = 0.002$) and between graduates and teachers ($p = 0.001$). Despite reaching statistical significance, the actual differences in the mean ranks between the groups were quite small, as the ES for all these differences was less than 0.30.

Reading

The achievement levels of the eight objectives of the Reading component were also rated by students, graduates and language teachers. Table 5.24 below compares the mean ranks of the three groups to these objectives.

Table 5.24: A comparison of the three groups' views on the achievement of Reading objectives

Objectives of Reading	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To read English with pleasure and interest and comprehend what you read	122.10	123.67	131.00	0.307	0.858
2. To read faster and in ways that meet students' expectations	116.72	119.62	184.75	18.017	0.000[†]
3. To understand and practise the English reading strategies	120.35	118.99	166.30	8.779	0.012[†]
4. To talk and think about a text in new ways	117.28	121.08	173.65	12.106	0.002[†]
5. To formulate and articulate ideas more precisely	115.32	126.58	156.20	6.743	0.034[†]
6. To experience the connections between reading and writing	120.81	126.07	126.00	0.395	0.821
7. To find out new ideas, facts and experiences	109.26	128.13	184.38	21.909	0.000[†]
8. To think in English and build linguistic competence as well as performance	119.57	123.39	147.70	3.021	0.221

*MR=mean rank, [†]=significant at 0.05 or lower.

As was the case in rating the achievements of Writing & Grammar and of Listening & Speaking, the mean ranks of teachers were higher than those of the students and graduates. There was a statistically significant difference between the groups in Objectives 2, 3, 4, 5 and 7. In terms of Objectives 2, 3, 4 and 7, the post-hoc test indicated that the statistically significant differences were between students and teachers ($p = 0.000$; 0.005; 0.001; 0.000) and between graduates and teachers ($p = 0.000$; 0.003; 0.001; 0.000). As for Objective 5, the significant difference was between students and teachers ($p = 0.014$). Again, the ES for these differences was smaller than 0.36, implying that the differences were not substantial.

Medical Terminology

The results of rating the achievement levels of the five objectives of the Medical Terminology component are shown in Table 5.25.

Table 5.25: A comparison of the three groups' views on the achievement of Medical Terminology objectives

Objectives of Medical Terminology	Groups				
	Students	Graduates	Teachers		
	*MR	MR	MR	Chi-Square	Sig.
1. To use the newly given medical terms in all four skills of language	124.52	122.02	125.20	0.094	0.954
2. To use the medical terms in professional communication	117.50	125.49	149.00	3.851	0.146
3. To recognize all body systems with their names and medical courses	128.68	109.51	166.60	13.434	0.001[†]
4. To comprehend and write short medical situations using medical terms	108.99	127.24	190.75	25.183	0.000[†]
5. To understand, read and write short medical reports	110.74	127.40	179.38	18.717	0.000[†]

*MR=mean rank, [†]=significant at 0.05 or lower.

The statistical results indicate that there were significant differences in the three groups' responses to Objectives 3, 4 and 5. In terms of Objective 3, the post-hoc test showed that the difference was statistically significant between graduates and teachers ($p = 0.001$). As for Objective 4, the significant differences were between students and teachers ($p = 0.000$) and between graduates and teachers ($p = 0.000$). With respect to Objective 5, they were between students and teachers ($p = 0.000$) and between graduates and teachers ($p = 0.000$). However, these differences were not substantial, as the ES was less than 0.30.

Summary

The findings indicate that in the eyes of both students and graduates, 20 of the 21 objectives had been only minimally achieved. In contrast, the language teachers rated only 10 objectives as negatively as this, while the remaining 11 objectives were seen to have been partially achieved. This was to be expected, since teachers and students often differ in their perceptions of what is taught and learned (Holmes, 2008: 8). However, while the three groups recognised the importance of the stated objectives for students' academic studies and target careers, they broadly did not think that these objectives had been achieved at the optimum level.

Based on the above findings, it seems reasonable to suggest that in general, the course did not lead to a satisfactory achievement of its objectives or 'target performance' (Scott and Scott, 1984: 213). That is, what was planned appeared to have been poorly implemented and attained. This is in line with the view of Nunan (1989: 185) that 'teachers do not always teach what has been planned'. This may be due to such factors as the inappropriate textbooks used (see section 5.1.2.1), the teaching styles and methodologies followed (see section 5.1.3.1), insufficient time devoted to achieving the objectives (see section 5.1.1.1) and large classes. The nature of some of these objectives might also be questioned, in particular whether they were unrealistic, over-ambitious or invalid because they were not primarily derived from an analysis of students' needs. Xenodohidis (2002: 8) notes that students will be demotivated if the goals and objectives of the ESP curriculum are unrealistic. It is also possible to question whether these objectives might change during implementation, since 'learning situations are dynamic' (Weir and Roberts, 1994: 21).

However, any conclusions from these findings can only be tentative. In order to draw more reliable conclusions, classroom observation procedures could be used to assess the achievement of course objectives, because observation is the only way to obtain direct data 'on the reality of programme implementation' (Weir and Roberts, 1994: 164). This does not mean that the achievement of objectives would provide a full picture of course effectiveness (Richards, 2001: 292). The next section, therefore, focuses on the extent to which the course was seen as having been helpful in improving the students' main language skills, grammar and vocabulary.

5.2.1.4 Helpfulness of the Course

The amount of improvement in students' language ability constitutes the 'bottom line' in any given language course (Weir and Roberts, 1994: 87). Therefore, in the interviews (Q7), six students and seven graduates were asked to assess the helpfulness of the course in improving their English ability in general and in particular their four main language skills, their grammar and their general & medical vocabulary. The six ESP teachers who were interviewed were asked the same question with regard to their students (Q6).

All six students felt unsatisfied with the helpfulness of the course in improving their English. Student 1 said, "*It has only helped me about 10 percent in writing, listening and reading* [and] *not at all in speaking*". Similarly, Student 4 replied that the course "*was somewhat helpful in improving my listening, writing, reading and grammar... but not helpful enough in speaking*", while the assessment of Student 3 was even less positive: "*Frankly speaking, it did not help me very much except in grammar and medical terminology, which became a little better*".

Graduate interviewees tended to be slightly more positive in their responses than current students. All reported that the course had been helpful to some extent in improving their English. Graduate 2 stated that the course "*helped me to improve my skills... It also helped me in building up a good store of vocabulary*", while Graduate 3 noted that "*the course was useful, especially in writing and listening*". Similarly, Graduate 6 said that he thought the course had been "*useful for me... My English skills have improved because of it*".

The six teachers interviewed claimed that the course had been helpful in improving their students' language skills and vocabulary. Teacher 1 said, "*The majority of our students achieved a reasonable level of improvement, particularly in writing... but it is unsatisfactory*", while Teacher 3 observed that "*in the first semester, we put a lot of effort into teaching students because they enter the course with very poor English... Their English skills in the second semester surely improve... It is noticeable... Our workload is reduced in the second semester*". Finally, Teacher 4 said that the course was "*helpful in improving students' language skills and vocabulary... however, they are still below average*".

190

In the questionnaires (Q7), the students and graduates were asked to make similar judgments to those of interviewees, about the helpfulness of the course in improving their own language skills, grammar and vocabulary, using a four-point Likert scale: 1 = not at all helpful, 2 = not very helpful, 3 = somewhat helpful, 4 = very helpful (see Tables 5.26 & 5.27). In a similar way, the 20 ESP teachers were asked about the helpfulness of the course to their students (Q7) (see Table 5.28).

Table 5.26: Students' evaluation of course helpfulness in improving their main skills, grammar and vocabulary

Helpfulness	Speaking		Listening		Writing		Reading		Grammar		General Vocab.		Medical Vocab.	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%
4= Very	12	10	8	6.7	20	16.7	41	34.2	25	20.8	21	17.5	29	24.2
3= Somewhat	55	45.8	39	32.5	61	50.8	57	47.5	55	45.8	56	46.7	51	42.5
2= Not very	46	38.3	53	44.2	33	27.5	18	15	31	25.8	36	30	31	25.8
1= Not at all	7	5.8	20	16.7	6	5	4	3.3	9	7.5	7	5.8	9	7.5

*F= frequency, %= percentage.

Table 5.27: Graduates' evaluation of course helpfulness in improving their main skills, grammar and vocabulary

Helpfulness	Speaking		Listening		Writing		Reading		Grammar		General Vocab.		Medical Vocab.	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%
4= Very	13	12.3	13	12.3	26	24.5	29	27.4	16	15.1	19	17.9	28	26.4
3= Somewhat	38	35.8	39	36.8	38	35.8	44	41.5	43	40.6	50	47.2	44	41.5
2= Not very	47	44.3	48	45.3	39	36.8	32	30.2	39	36.8	32	30.2	29	27.4
1= Not at all	8	7.5	6	5.7	3	2.8	1	0.9	8	7.5	5	4.7	5	4.7

*F= frequency, %= percentage

Table 5.28: ESP teachers' evaluation of course helpfulness in improving their students' main skills, grammar and vocabulary

Helpfulness	Speaking		Listening		Writing		Reading		Grammar		General Vocab.		Medical Vocab.	
	F*	%	F	%	F	%	F	%	F	%	F	%	F	%
4= Very	1	5	5	25	3	15	11	55	3	15	8	40	12	60
3= Somewhat	15	75	12	60	15	75	9	45	17	85	12	60	6	30
2= Not very	4	20	3	15	2	10	0	0	0	0	0	0	2	10
1= Not at all	0	0	0	0	0	0	0	0	0	0	0	0	0	0

*F= frequency, %= percentage.

The K-W test was used to assess the differences between the three groups in the evaluations shown in Tables 5.26, 5.27 and 5.28. The results are shown in Table 5.29 below.

Table 5.29: Comparison of three groups' evaluations of course helpfulness

Skills	Groups			Chi-Square	Asymp. Sig.
	Students	Graduates	ESP Teachers		
	*MR	MR	MR		
Speaking	124.66	117.31	149.35	4.075	0.130
Listening	109.52	129.52	175.45	18.378	0.000 [†]
Writing	121.46	122.07	143.32	1.958	0.376
Reading	127.55	111.46	163.02	11.070	0.004 [†]
Grammar	127.47	112.70	156.92	8.318	0.016 [†]
General Vocabulary	118.37	120.03	172.70	12.123	0.002 [†]
Medical Vocabulary	117.52	121.52	169.85	10.547	0.005 [†]

*MR=mean rank, [†]=significant at 0.05 or lower.

The mean ranks in Table 5.29 indicate that the degree of perceived helpfulness varied from one skill to another. A cross-tabulation found that the highest degree of helpfulness was in improving reading, followed by medical vocabulary. This may be attributed to the fact that in the course organization, reading and medical vocabulary are the only two areas which are taught as two separate language components. The cross-tabulation also indicated that the same approximate amount of helpfulness provided by the course was noticeable in writing and general vocabulary. Finally, the course was thought to be least helpful in improving listening, behind grammar and speaking.

Comparatively speaking, the results show that the mean ranks of the teachers were higher than those of both the students and the graduates. This suggests that ESP teachers generally tended to be more positive in their evaluation of course helpfulness than the students and graduates. This is consistent with the interview findings.

The results also show statistically significant differences between the groups in their evaluations of helpfulness in improving listening, reading, grammar, general and medical vocabulary. In terms of listening, general vocabulary and medical vocabulary, the post-hoc test indicated that the statistically significant differences were between ESP teachers and students ($p = 0.000$; 0.001; 0.001) and between ESP teachers and graduates ($p = 0.003$; 0.001; 0.003). Regarding reading and grammar, the differences were significant between ESP teachers and graduates ($p = 0.002$; 0.004). The ES for all these differences was less than 0.33, implying that the apparent significance may have been due mainly to the large sample, rather than to major differences between the three groups.

Despite these differences, the majority within the three groups seemed to agree that the course was most helpful in improving reading. This is entirely consistent with the results obtained when the three groups were asked to indicate which language skill was most improved (Q8 in Questionnaires). The results are presented in Table 5.30.

Table 5.30: Questionnaire responses regarding the most improved skill (frequency and percentage)

	Students		Graduates		ESP Teachers		Average
Skill	Freq	%	Freq	%	Freq	%	%
Reading	54	45.00	58	54.70	8	40.00	**46.56**
Writing	30	25.00	22	20.80	4	20.00	21.93
Speaking	27	22.50	12	11.32	3	15.00	16.27
Listening	9	7.50	14	13.20	5	25.00	15.23

The average percentages in Table 5.30 indicate that of the four main language skills, reading was considered by the majority of the groups to be the most improved skill, followed by writing, speaking and listening. The K-W test did not show any statistically significant difference in the evaluations of the three groups ($x^2 = 3.495$; $df = 2$; $p = 0.174$).

Two conclusions can be drawn from the above results. First, taken together, this result and those of the perceived importance of language skills for academic studies reported in Chapter 4 (section 4.1) tend to suggest that the current course was more helpful in improving those skills which were more important for students' academic studies and correspondingly less helpful in improving those skills which were less often needed. At the same time, it can be tentatively suggested that the course was likely not to be very helpful in improving speaking, which was considered the most important skill for students' target careers (see Chapter 4, section 4.2). These suggestions are supported by the result reported in Tables 5.20 and 5.21, showing that the number of those who were generally satisfied with the course in terms of equipping its students with the language skills they needed to function satisfactorily in their academic studies was markedly greater than the number who felt similarly about target career skills.

The three groups were also asked to evaluate the helpfulness of the course in improving the students' overall English language ability. The results are presented in Table 5.31.

Table 5.31: Evaluation of course helpfulness in improving students' English language ability

Helpfulness	Students		Graduates		ESP Teachers		Average
	Freq	%	Freq	%	Freq	%	%
4=Very	9	7.5	16	15.1	3	15	12.53
3=Somewhat	77	64.2	46	43.4	15	75	**60.86**
2=Not very	31	25.8	42	39.6	2	10	25.13
1=Not at all	3	2.5	2	1.9	0	00	1.46

Overall, the majority of the groups considered the course to be moderately helpful in improving its students' overall English ability. The K-W test did not show any statistically significant difference in the evaluation of the three groups ($x^2 = 4.971$; $df = 2$; $p = 0.083$).

5.2.1.5 Evaluation of the Course

The questionnaire respondents were asked to evaluate the whole ESP course in general terms (Q10) on a four-point Likert scale: 1 = not successful & effective at all, 2 = successful & effective only in few of its aspects, 3 = successful & effective in most of its aspects, 4 = very successful & effective. Table 5.32 summarizes the three groups' impressionistic evaluations of the course in frequencies and percentages, with the average percentage for each evaluation term across group evaluations.

Table 5.32: The three groups' impressionistic evaluations of the ESP course

Evaluation Terms	Students		Graduates		Teachers		Average
	F*	%	F	%	F	%	%
4=Very successful & effective	13	10.83	9	8.50	3	15.0	11.44
3=Successful & effective in most aspects	70	58.33	59	55.66	15	75.0	**62.99**
2=Successful & effective in a few aspects	28	23.33	32	30.18	2	10.0	21.17
1=Not successful & effective at all	9	7.50	6	5.66	0	0.0	4.38

*F= frequency, %= percentage

Overall, the average percentages in Table 5.32 provide a comprehensive picture of the groups' collective attitudes toward the ESP course. Almost three-quarters of all respondents felt that the course was successful and effective, at least in most of its

194

aspects, whereas a fifth (21%) considered it successful and effective in only few aspects and only 4% believed that the whole course was unsuccessful and ineffective. The K-W test was used to discover whether the three groups were significantly different from each other in their impressionistic evaluations of the course. No statistically significant difference was found between any of the three groups of informants ($x^2 = 5.015$; $df = 2$; $p = 0.081$). However, while nine students and six graduates had strongly negative attitudes towards the course, no teacher did. In summary, a solid majority of all three groups saw the ESP course as successful and effective, although they differed in their estimation of the extent to which this was so.

The results reported above can only be a general indicator of course effectiveness. Language proficiency tests could be used to maximize the reliability of these results.[1] However, this does not necessarily mean that evaluating a course by testing students is without limitations (Sharp, 1990: 132). Fulcher (1999: 233) effectively argues that 'if students do not take tests seriously their responses [...] are not likely to be adequate samples of their ability, which in turn threatens score meaning, and hence validity'. Richards (2001: 300) also notes that 'it is not always easy to be sure that changes in learning as measured by tests are a direct result of teaching' and that 'sound tests – tests that reflect principles of reliability and validity – are difficult to construct'. This is why testing as an evaluation procedure was not used in this study. Instead, students' final achievement scores in the course components were used and are considered next.

5.2.2 Students' Achievement Grades

'Course grades are regularly treated within higher education as a principal indicator for student academic success' and they can be interpreted 'as a direct sign of individual achievement or learning' (Norris, 2008: 210). This implies that students' grades can be generally used to measure changes in language learning (Weir and Roberts, 1994: Richards, 2001). Such data (students' final grades) were employed in this study in order to discover whether there was any significant improvement in students' language ability by the end of the course.

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[1] It is to be noted that I have collected data on assessment of students' individual language abilities, but space limitations prevent their inclusion here.

At the end of the 2007-2008 academic year, a sample of 120 course students was randomly chosen from the three HSCs (40 students from each college). Their final achievement grades[1] in the four ESP course components in the two semesters of this academic year were accessed from the course records and arranged anonymously in a database. The purpose was to compare the scores across language components in each of the semesters in turn, followed by the central comparisons, between semesters, in order to assess the degree of improvement in each language component.

In the first semester, students completed each individual component with reasonable success rates (see Table 5.33) and it is particularly notable that they scored the highest achievement marks in Listening & Speaking (considered the least important skills) and the lowest in Reading (the most important)[2]. The average score in all course components was 72.32%. However, nine of the 120 students (7.5%) scored below the required pass mark of 60 in Writing & Grammar, five (4%) in Listening & Speaking, fifteen (12.5%) in Reading and twelve (10%) in Medical Terminology.

Table 5.33: Descriptive statistics of 1ˢᵗ semester final achievement grades (out of 100) in the four course components (N=120)

Course Components	Minimum	Maximum	Mean	Std. Deviation
Writing & Grammar	18	96	70.50	14.337
Listening & Speaking	41	99	75.38	12.402
Reading	26	99	69.61	16.387
Medical Terminology	24	99	73.80	16.817

Marks were higher in the second semester than the first (see Table 5.34). Again, it is notable that students scored best in Listening & Speaking and lowest in Reading.

Table 5.34: Descriptive statistics of 2ⁿᵈ semester final achievement grades (out of 100) in the four course components (N=120)

Course Components	Minimum	Maximum	Mean	Std. Deviation
Writing & Grammar	26	95	74.23	12.347
Listening & Speaking	42	98	79.32	12.507
Reading	16	93	72.58	13.493
Medical Terminology	22	99	75.72	16.201

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[1] See section 5.1.4 (under Language Assessment Procedures) for more information about the final achievement grades.
[2] See section 4.1 in Chapter Four.

Table 5.34 also shows that mean achievement in each component was satisfactory (above 70). Consequently, the average overall score (75.46) was also satisfactory, the pass mark being 60, and slightly higher than in the first semester.

The failure rate in the second semester was lower than for the first. Only three students (2.5%) scored below the pass mark in Writing & Grammar, three (2.5%) in Listening & Speaking, and eight (6.6%) in Reading, while the number who failed Medical Terminology remained unchanged at twelve (10%).

Degree of Improvement in Course Components

In order to compare the means of eight subsets of scores for students' achievement (two sets of scores for each of the four course components) and because the two sets came from the same cases and were interval scales,[1] the paired *t*-test (matched t-tests) was selected as the appropriate statistical analysis (Dornyei, 2007: 215). It revealed that the difference in mean scores between semesters was statistically significant for each of the four course components [2] (Table 5.35).

Table 5.35: The paired samples *t*-test for each course component (N=120)

Course Components	t	Df	Sig. (2-tailed)	Effect size*
Writing & Grammar	-6.250	119	.000[†]	0.24
Listening & Speaking	-4.860	119	.000[†]	0.16
Reading	-4.025	119	.000[†]	0.11
Medical Terminology	-2.574	119	.011[†]	0.05

[†]=significant at 0.05 or lower, *Effect size (*eta squared*) = $t^2/(t^2 + Number of students − 1)$ (Pallant, 2005: 212)

By and large, this significant difference indicates that language learning appeared to have taken place and that the course as a whole was helpful in improving students' language achievement, although the overall percentage of improvement was not large, at 4.34%[3] (see Table 5.36).

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[1] It should be noted that although with large sample sizes 'the impact of any deviations from normality diminishes' (Dornyei, 2007: 209), the distributions of the eight sets of scores were examined and found to be reasonably normal and symmetrical. Space limitations prevent the inclusion of the histograms of these distributions.

[2] For Medical Terminology, the effect size was small, indicating that although the difference was significant, its magnitude was too small to be really meaningful.

[3] The improvement percentage was calculated using the following equation:

% improvement = [(2nd term mean score − 1st term mean score) / 1st term mean score] x 100.

Table 5.36: 1ˢᵗ and 2ⁿᵈ semester mean scores and improvement percentages

Course Components	Mean Scores – 1ˢᵗ Semester	Mean scores – 2ⁿᵈ Semester	Difference	Percentage improvement
Writing & Grammar	70.50	74.23	3.73	5.29%
Listening & Speaking	75.38	79.32	3.94	5.22%
Reading	69.61	72.58	2.97	4.26%
Medical Terminology	73.80	75.72	1.92	2.60%
Average	72.32	75.46	3.14	4.34%

It should be noted that any conclusions based on students' achievement grades are tentative at best. One might argue, as Norris (2008: 210) does, that 'grades are themselves susceptible to a variety of potential intervening variables from both the student's (e.g., variable performance over semester) and the teacher's (e.g., grade inflation) side of the grade equation, leading to instability in the exact meaning of an individual student's grade'. Moreover, students' success in the course components (or the whole ESP course) does not necessarily imply proficiency in English or the ability to use English in communication situations. Jordan and Matthews (1978: 8) observe that 'it is possible for a student to pursue his course of studies uttering hardly a word'.

5.3 CHAPTER SUMMARY

This chapter has addressed the question of the appropriateness and effectiveness of the ESP course. It started by analyzing the qualitative and quantitative data gathered from stakeholders and relevant documents on specified aspects of the course, then analyzed those on the students' language achievement.

Generally speaking, the data indicate that the ESP course was effective to some extent. However, this claim of effectiveness does not necessarily entail the absolute appropriateness of all areas of the course. The assumption underlying the analysis of data from documents, interviews and questionnaires has been that the general organization of the ESP course was not structured according to an accurate assessment of its context or of the specific needs of its participants, so that its existing duration, focus, components, materials, methodology and assessment procedures are likely to be in need of improvement.

The final chapter, which follows, draws conclusions, examines the implications of the results and makes recommendations for further research.

CHAPTER SIX: CONCLUSION & RECOMMENDATIONS

This chapter presents a summary of the study and its key findings, followed by a consideration of pedagogical implications for the improvement of the ESP course, as well as recommendations for further research. The limitations of the study are then assessed and the chapter concludes with a brief summary of the researcher's reflections and lessons learnt from undertaking this study.

6.1 SUMMARY OF THE STUDY AND ITS KEY FINDINGS

The primary objective of this study was to develop the current ESP curriculum at the Health Science Colleges in Saudi Arabia through needs analysis and course evaluation. Therefore, the ESP curriculum development process started with identifying the English language needs of the students both while at the HSCs and during the early stages of their future healthcare careers. Then, the current ESP course was evaluated in order to investigate to what extent it was appropriate and effective. Finally, the findings from the needs analysis and course evaluation were analysed in order to propose improvements so that academic and workplace language needs could be integrated, thus enhancing students' immediate and future achievements.

As high school leavers, most students join the HSCs with an inadequate level of communicative English proficiency. They can at best be described as low intermediate learners of EFL. Thus, a legitimate initial goal of the ESP course at the HSCs be to improve their language ability in general and to provide them with the skills they need in order to communicate effectively in the target situation. In the past, health sciences departments at the HSCs, as well as hospitals and other health centres, have frequently claimed that the ESP course did not provide its students with optimal English skills to facilitate their academic studies and to allow them to function efficiently in their areas of study and in their target careers. It was believed that the main weaknesses of the course stemmed from the fact that two vital steps in its development, namely needs analysis and course evaluation, had never been followed since its inception in 1991. The current study marks an attempt to respond to these important requirements. To achieve its objective, the study has addressed three main research questions:

1. To what extent are the four main skills required in the HSC students' academic studies?

2. To what extent are the four main skills required in the HSC students' target careers?

3. To what extent is the current ESP course at the HSCs appropriate and effective?

To provide answers to the above questions, three qualitative and quantitative research instruments were developed: documents analysis, interviews and questionnaires. The research methodology was built on the statement of the problem and the research questions, as well as the theoretical discussion of needs analysis and course evaluation. Triangulation was applied in this study in terms of data collection tools, sources of information and locations. Seven groups of participants (current students, graduates, language teachers, course administrators, managers of hospitals, physicians and health professionals) were approached for the purpose of data collection. The data collected were analyzed qualitatively and quantitatively. The study has reached a number of findings, produced a profile of needs and provided some suggestions, which together help to answer the research questions and achieve the main objectives of the study.

The findings are divided into three major themes derived from the research questions: (a) English language needs in students' academic studies, (b) English language needs in students' target careers and (c) the weaknesses and strengths of the ESP course. They are summarized below in that order.

6.1.1 English Skills Needed in Students' Academic Studies

The data suggest that the majority of students, graduates and language teachers recognized the importance of English language for students' academic work. Data from both interviews and questionnaires indicate that the overwhelming majority of informants in all groups (students, graduates and teachers) considered all four main English language skills to be very important in academic studies, amongst which reading was seen as most important, followed by writing, listening, and speaking. However, the statistical analysis revealed significant differences between the three groups, mainly in relation to perceptions of the importance of reading, writing and listening skills.

The analysis of the interviews, questionnaires and documents indicated that the HSC students needed many English language sub-skills to be able to complete tasks in their academic studies. These are summed up as follows:

1. Reading lecture handouts and notes, subject course textbooks and other references in the students' own field of study;
2. Reading both medical and general dictionaries;
3. Reading with the goal of extracting relevant academic knowledge;
4. Reading and comprehending graphic information: tables, diagrams, charts and graphs;
5. Skimming and scanning to find the required information quickly;
6. Understanding the differences between medical concepts;
7. Understanding quizzes, tests and exam questions and writing appropriate answers;
8. Understanding exam terminology (e.g. 'define', 'match', 'classify', 'discuss');
9. Coping with medical terms and recognizing their definitions;
10. Understanding mathematical vocabulary and symbols;
11. Making notes from academic texts;
12. Writing essays of different types for various purposes (e.g. summary, explanation, definition, cause and effect, comparison and contrast);
13. Writing short sentences, paragraphs and lab reports;
14. Writing clearly, taking care of spelling and cursive handwriting;
15. Listening to and comprehending academic lectures and discussions;
16. Comprehending spoken instructions in a range of natural pronunciation;
17. Asking and answering questions during lectures;

18. Asking for clarification and repetition;
19. Translating academic texts from English into Arabic.

6.1.2 English Skills Needed in Students' Target Careers

The study found English to be considered important for students' target careers. The results also suggest that having a fluent command of oral and written English is an integral part of being a successful health professional. The majority of interviewees and questionnaire respondents perceived all four language skills as being of equal importance in students' target careers. They felt that speaking, listening, writing and reading were all very important in the workplace (hospitals and other healthcare facilities). However, student interviewees did not consider writing very important for their target careers.

While statistical analysis of the questionnaire results suggests significant differences among students, employees and ESP teachers, these three groups of respondents were in agreement that speaking and reading were the most important skills needed for students' target careers. The analysis of authentic workplace texts revealed that students were expected to read more than to write.

The analysis of the interviews, questionnaires and workplace texts indicate that students should expect during their target careers to need to carry out many tasks requiring English language sub-skills. These are summed up as follows:

1. Reading patients' files and history/progress reports;
2. Comprehending and filling out request and report forms (e.g. lab reports, X-ray request and reports), procedural, accident & emergency and discharge summary forms;
3. Reading and comprehending the handwriting of physicians and other medical personnel in requests, reports, memos, prescriptions and other related forms;
4. Reading and comprehending medical terminology and vocabulary items, abbreviations and acronyms;
5. Writing labels, memos, short notes (e.g. nursing notes) with clear handwriting and accurate spelling;
6. Comprehending physicians' oral instructions and directions;

7. Communicating satisfactorily with co-workers;
8. Discussing medical reports, patient issues and other health-related topics with medical staff;
9. Communicating with patients (in Arabic and English);
10. Pronouncing words intelligibly and correctly;
11. Translating medical reports from English into Arabic;
12. Interpreting from English into Arabic.

6.1.3 The ESP Course – Strengths and Weaknesses

On the whole, the results of the document analysis, interviews and questionnaires suggest that the ESP course was effective and helpful in improving students' language ability, to some extent. The majority of course stakeholders agreed that it adequately prepared students' for their academic studies. However, about 44% disagreed that the course satisfactorily prepare students' for their target careers. Granted that a language course can hardly be without limitations, a developmental approach to ESP course evaluation should have aimed at identifying its weak points while underscoring its strong ones.

6.2 RECOMMENDATIONS FOR CHANGES IN THE ESP COURSE AND FOR FUTURE RESEARCH

While this study is highly context specific, some broader implications can be drawn from it before introducing those related to the immediate context. One implication is the prominent place of English as an international language of medicine. Thus, a fluent command of written and oral English is seen as an integral part of being a successful medical professional. Another implication is that workplace experience can aid English language learners in mastering oral and aural communication skills. Such experience can also be very beneficial for ESP course developers. By spending some time in the workplace, course developers can see how the content, skills and tasks on which they want to base the course are actually used by workers in the real word. Hence, an accurate ESP learner NA should include these kinds of target needs. Collecting multiple types of data from various sources in NA and course evaluation is also necessary to gain a deeper understanding of learning and target needs.

Recommendations and implications for the development of the ESP curriculum under investigation are presented below. Following the ESP curriculum development model introduced in Chapter 2 (Figure 2.1), the findings of the NA and course evaluation are applied to the other parts of the curriculum development process, namely course objectives, materials, classroom teaching and assessment procedures. That is, the information and insights gained from the NA and course evaluation are used to formulate the course objectives, to form the basis of an approach to course teaching and to select the tasks, materials and assessment procedures that would lead to the desired learning outcomes.

6.2.1.1 Aims and Objectives

Following the ESP curriculum development model (Figure 2.1), the needs analysis and course evaluation (its formative side in particular) should have the aim of informing and be able to inform decision-making on all other aspects of curriculum development, including the resetting and adjustment of its objectives and aims if needed. The findings of the questionnaires suggest that the majority of students, graduates and teachers thought that most of the course objectives had not been attained to the optimum level (see sections 5.1.1.3 & 5.2.1.3). The low level of achievement of the objectives seems to be partially related to their articulation. It is suggested that the present objectives lack clarity, specificity and do not adequately indicate the commutative skills students need in their academic studies and target careers. Therefore, modifications and renewals in formulation may be necessary for clarification purposes, in view of the NA and formative evaluation findings.

The overall course objective is 'to improve the students' English language and enable them to use it during study and in communication'. Apart from the ambiguity of using the expression "students' English language", it seems that the focus of the objective is on communication skills. One component of the ESP course is named 'Listening & Speaking' and covers the conversational skills of listening and speaking. If the overall objective of the ESP course were the mere improvement of the oral communication skills, there would accordingly be no need for the other components of Reading, Writing & Grammar, etc. Instead, both the literacy and fluency skills of Medical English should be included in the overall objective of the course. According to Dudley-Evans and St John (1998: 49), medical students 'have to read textbooks and articles, and write essays and short clinical reports'. To be precise, the primacy of the two language components of Reading and Writing & Grammar should be articulated clearly. Also, a short account is needed in order to rationalize and to guide the general organization of the curriculum. For example, there is a need to emphasize the students' proficiency level at entry and the importance of presenting the language components in a more realistic and integrated manner that resembles the target language in use and responds to the learners' present and target language needs. These language presentation guidelines should be utilized throughout the course implementation, including the classroom processes such as teaching and assessment. It is recommended that the course should fill the gap between the evidently low level of students' general English ability and the specialized English proficiency as dictated

by the target situation needs. Consequently, the two main objectives of the new ESP course are to improve the students' language ability in general and to provide them with the literacy and fluency skills of Medical English they need in a realistic and proper way that would enable them to communicate and function effectively in their academic studies and target careers.

In order to match objectives to needs, the instructional objectives of the course components should be derived from the different target tasks identified above (see sections 6.1.1 & 6.1.2). Such tasks can be the main basis for the design of pedagogical tasks as explained below.

6.2.1.4 Classroom Activities and Methodologies

This study came to the conclusion that the classroom approaches adopted by ESP teachers were generally inappropriate (see section 5.1.3.1). Part of the problem may be that the teacher, constrained by limited time and large class size, has become 'so bogged down in carrier content that he loses sight of course objectives' (Scott and Scott, 1984: 215). The main teaching strategies of the Reading, Writing & Grammar and Medical Terminology components include, for example, 'pair-work and group-work' (GDHCI, 2007: 2). In the present case, these classroom activities can be said to be ineffectively employed by some teachers (see Table 5.13). Therefore, relevant teachers are advised to employ these dynamic classroom techniques and activities effectively and appropriately, acting and seeing themselves as learning facilitators rather than information transmitters. Interaction between pairs and groups of students is thought by researchers to play an important role in the development of linguistic and communicative competence; it 'increases the amount of student participation in the class' and 'enables the teacher to work more as a facilitator and consultant' (Richards and Lockhart, 1996: 153). However, 'any classroom activity has the potential for conflict if students do not have the meta-language required for taking turns in pairwork or groupwork' (McCarter and Jakes, 2009: 160). Therefore, it is strongly recommended that teachers should not start asking their students to work in pairs or groups until the second and third terms, as they become more advanced. It is also recommended that each class should have a teacher who is capable of managing such classroom interaction activities and of fulfilling the specific objectives of the language component in order to satisfy the relevant needs. More importantly, raising teachers' awareness of the advantages of such activities in classroom interaction and

training them to use them is strongly recommended. 'A teacher's self-awareness ─ knowing why we teach the way we do ─ is central to our effectiveness as teachers, our job satisfaction and our professional development' (Hyland, 2006: 293).

The ESP staff can be helped to teach more effectively by means of enhancing close cooperation and direct contact between the language teachers and the subject teachers. Such purposeful collaboration could ultimately materialize in the form of 'team-teaching' where a subject teacher and a language teacher work together in the classroom (Dudley-Evans and St John, 1998: 45). Because such 'joint teaching' is 'time consuming' (Jordan, 1997: 121), it could in the present case be best utilized during the proposed intensive ME phase of the course. This approach is particularly applicable to the second language component of the MEFS. In practice, after considerable coordination between the language and subject tutors, the latter might prepare and present a lecture on an appropriate subject during which students were asked to take notes. Afterwards, teachers and students could engage in conversation and discussion of the academic medical discourse and the use of the appropriate language genre, to which students would be purposefully exposed. According to Jordan (1997: 121), one important advantage of team-teaching is that 'the students see that their subject tutors take the [ESP] classes seriously'. Meanwhile, it can help to compensate for language teachers' scant knowledge of the subject field (Belcher, 2006: 139).

However, to be successful, this teaching procedure requires willingness, 'openness' and 'flexibility' from all participants, especially the subject specialists (Dudley-Evans and St John, 1998: 47). Therefore, only those subject teachers having positive attitudes towards the ESP course, sympathizing with its teachers and students, and showing some interest in ESP matters may be asked to take part in the venture, particularly in its early days (Hutchinson and Waters, 1987: 164).

6.2.1.5 Assessment Procedures

On the whole, the course assessment procedure was found to constitute a weak area of planning and implementation. All of the problems assumed to arise from giving equal weight in the assessment to each of the four language components and from students' noticeable negligence of certain components could be expected to vanish under the proposed integration scheme. It is also recommended that the integration of the course should not be considered to end with the integration plan itself. Individual differences in language proficiency amongst students are to be expected and should be considered. A test should therefore be administered at the outset of the course for diagnostic purposes, to make sure that the integrated courses meet the students' needs. If necessary, certain students should accordingly be exempted from following parts of the course which would be too easy for them and not informative at all, thus using the initial test for placement purposes.

In addition, quizzes, presentations, assignments and end-of-term exams should be used as continuous assessment procedures. Under the new assessment scheme, quizzes and an end-of-term exam would be used in the first term of the course (the intensive GE phase). Successful students would then be allowed to move to the second term. In the second and third terms, a variety of assessment tools (quizzes, presentations, assignments and end-of-term exams) could be used to alleviate the problem of heavy dependence on exams. Each student's final average grade for the second and third terms would indicate whether he had passed the ESP course. The weight given to each language component should be decided by its importance.

It is highly recommended that in the second and third terms, the exam requirements should represent the students' academic and professional goals, rather than pass/fail ones. That is, exams should measure the students' abilities and knowledge relevant to their academic studies and to their target careers, thus providing a beneficial washback effect. This can be carried out through the use of authentic assessments. Such assessments require the students to complete a real-life task that they will likely to encounter in their target situations.

6.4 REFLECTIONS OF THE RESEARCHER

My initial assumption was that conducting a needs analysis and evaluation research would not demand much time. Later, when I went through the research process, I had to admit that the time needed was a real limitation of such studies. However, this research has enabled me to learn how to manage and plan my time effectively. It has also enabled me to recognize the role of both needs analysis and evaluation not only in theory, but also as practical aspects of language course design and development. The experience of doing this research has also taught me some valuable lessons and provided me with research skills that I lacked. For example, it has greatly developed my interviewing and communication skills through meeting and interacting with different kinds of people: administrators, language teachers, students, hospital managers and medical staff. Moreover, I have learned how to use the SPSS software in order to obtain both descriptive and inferential statistics. It has also taught me to be an independent, critical and neutral thinker.

Having taught on the ESP course for more than three years, I am familiar with the context of the present study, the events discussed and the issues arising. However, in doing this research, I took care not to impose my personal views on any aspect of it, including its participants and outcomes. I detached myself from the study, continuously reflecting and taking a critical look at my research in order to improve its validity and recognize its limitations. My central role as an insider researcher was to investigate the questions addressed with the purpose of developing the current ESP course. In short, I had no desire to make things look either good or bad.

Surely, the experience of doing this research has taught me many things which cannot be covered in this limited space. I will draw on this experience, when serving on committees or curriculum teams, to design and/or develop ESP courses and syllabi. This experience will, I believe, serve me well in spite of the challenges and obstacles thrown up by events, administrations, programmes and bureaucracy in the process of curriculum development.

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APPENDICES

APPENDIX A1: Current Students' Semi-structured Interview Schedule

1. Do you think English is important in your academic studies and target career?

2. To what extent, do you think, the four main skills are important to your target career?

3. To what extent, do you think, the four main skills are important to your academic studies in this college?

4. Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional?

5. How well do you think the current ESP course meets both your academic study and target career needs?

6. Could you tell me what you like and do not like about the current ESP course?

7. How helpful is the current ESP course in improving the following:

   Your level of English

   Your language skills (reading, listening, writing, speaking)

   Your grammar

   Your vocabulary (general, medical)

8. Have you encountered any problems or difficulties while learning English at the HSC? If yes, could you tell me about them?

9. What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs?

   Would you like to comment or add anything? You are very welcome.

APPENDIX A2: Graduates' (Employees) Semi-structured Interview Schedule

1. According to your working experience, do you think English is important in your current career?

2. Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional?

3. How often do you use English in your career?

4. To what extent, do you think, the four main skills are important to your current career?

5. Have you encountered problems while using English at your workplace? If yes, could you tell me about them?

6. To what extent, do you think, the four main skills were important to your academic studies, when you were studying at the HSCs?

7. How helpful was the ESP course in improving the following:

Your level of English

Your language skills (reading, listening, writing, speaking)

Your grammar

Your vocabulary (general, medical)

8. How well, do you think, the ESP course at the HSC met both your academic study and target career needs?

9. Did you encounter any problems or difficulties while you were learning English at the HSCs? If so, could you tell me about them?

10. Could you tell me what you like and do not like about the ESP course?

11. What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs?

Would you like to comment or add anything? You are very welcome.

APPENDIX A3: ESP Teachers' Semi-structured Interview Schedule

1. How many years have you been a teacher at this college? Have you ever attended a teacher-training course, in either general or medical English?

2. Do you think that English is important to your students in their academic study and target careers?

3. What do want your students to be able to do with English?

4. What do you perceive as the needs of your students for their academic studies and target careers?

5. What do you need to satisfy your students' needs?

6. How helpful is the current ESP course in improving the following:

Their level of English

Their language skills (reading, listening, writing, speaking), grammar and vocabulary (general, medical)

7. To what extent, do you think, the four main skills are important in your students' academic studies?

8. Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional?

9. To what extent, do you think, the four main skills are important in your students' target careers?

10. Could you tell me what you like and do not like about the current ESP course?

11. Do you encounter any problems while teaching English at the HSCs? What about your students, do you think they encounter any problems in learning English?

12. What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs?

Would you like to comment or add anything? You are very welcome.

APPENDIX A4: Course Administrators' Semi-structured Interview Schedule

1. What do the Ministry of Health or the HSCs want these students to be able to do in English while studying at the HSC and when they graduate? What is the main objective of the ESP course?

2. Do you think that English is important to your students in their academic studies and target careers?

3. How satisfied are you with the level of English of your graduates?

4. What do you perceive as the needs of your students, in their studies and target careers?

5. On what basis is the content of the curriculum is determined?

6. Do you think that students encounter any problems while learning English at the HSCs?

7. How satisfied are you with your ESP teachers? What are the criteria against which their work is evaluated?

8. What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs?

Would you like to comment or add anything? You are very welcome.

APPENDIX A5: English-speaking Physicians and Health Assistants' Semi-structured Interview Schedule

1. Do you think English is important in your work?

2. How often do you use it and with whom? Do you think English has a role in the quality of healthcare services in this hospital? If so, please give examples.

3. Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional?

4. How satisfied are you with the level of English of the HSC graduates?

5. How do you see their language skills (reading, listening, writing, speaking) their grammar and vocabulary (general, medical)?

6. What, exactly, are the HSC graduates able and not able to do in terms of English?

7. Please describe the work situation in which you need to speak English with the HSC graduates. Do you think it is difficult to communicate with them in English?

8. To what extent, do you think, the language skills are important to the HSC students target careers?

9. Do you think they are prepared to use English to meet their work requirements?

10. What can the HSCs do to prepare the graduates better for the kind of English required for their work?

Would you like to comment or add anything? You are very welcome.

APPENDIX A6: Hospital Managers' Semi-structured Interview Schedule

1. Do you think English is important in your hospital?

2. Do you think it has an effect on the quality of healthcare services you provide in this hospital? If so, please give examples.

3. Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional?

4. How satisfied are you with the level of English of the HSC graduates?

5. How do you see their language skills (reading, listening, writing, speaking) their grammar and vocabulary (general, medical)?

6. What, exactly, are the HSC graduates able and not able to do in terms of English?

7. Do your foreign employees who speak English express dissatisfaction because of their limited English proficiency?

8. To what extent, do you think, the language skills are important to the HSC student target careers?

9. Do you think that the ESP course they took prepared them well for their work requirements?

10. What can the HSCs do to prepare the graduates better for the kind of English required for their work?

Would you like to comment or add anything? You are very welcome.

APPENDIX B1: Current Students' Questionnaire

بسم الله الرحمن الرحيم

أخي الطالب في برنامج اللغة الإنجليزية لطلاب كليات العلوم الصحية   سلمه الله
السلام عليكم ورحمة الله وبركاتة ،،،، وبعد

لقد تم اختيارك ضمن عينة عشوائية من طلاب البرنامج وذلك لتعبئة هذا الاستبيان والذي وضع من أجل معرفة احتياجات اللغة الإنجليزية لديك الآن في الكلية ومستقبلاً في عملك في المستشفيات والمستوصفات، وأيضا تقييمك للبرنامج الحالي ورأيك في أهدافه و مكوناته وطرقه بشكل عام ومدى مناسبة البرنامج لحاجاتك الأكاديمية والعملية، وهذا الاستبيان جزء من مجموعة أدوات يستخدمها الباحث لتقييم البرنامج بشكل شامل.

إن حرصك على تعبئة هذا الاستبيان يصب في مصلحتك بالدرجة الأولى وهي فرصة مناسبة لك من أجل أن تبدي رأيك لمن يقوم بإعداد منهج برنامج اللغة الإنجليزية وتشير إلى ماهو مهم فيما يخص اللغة الإنجليزية في دراستك الحالية و عملك المستقبلي لأن هذا البرنامج لم يوضع إلا لتزويد طلابه بالمهارات اللغوية اللازمة لتسهيل مهامهم الدراسية والعملية باللغة الإنجليزية.

لن تأخذ تعبئة هذا الاستبيان من وقتك أكثر من 25 دقيقة وأرجو أن تجيب على الأسئلة بتأني وروية حيث أنه ليس هناك إجابة خاطئة أو صحيحة وإنما ماتقوم به هو مساعدة منك لجمع معلومات قيمة يحتاجها الباحث لإكمال الدراسة التي يقوم بها من أجل تطوير وتحسين مستوى تعليم وتدريس اللغة الإنجليزية في الكليات الصحية، وكن على ثقة بأن إجابتك سوف تستخدم بسرية تامة للبحث الذي اقوم به ولضمان المصداقية والأمانة في التعبير عن رأيك بكل حرية فليس مطلوباً منك كتابة اسمك، وكل ماهو مطلوب منك هو أن تضع علامة (✓) في المربع المناسب الذي يعبر عن رأيك، وإذا أردت أن تضيف أي اقتراح أو تعليق فليكن ذلك في آخر صفحة.
(مشاركتك في تعبئة هذا الاستبيان تطوعية وبإمكانك تركه فارغاً إذا لم ترغب بالمشاركة فيه)

1. Why are you learning English? Tick (✓) more than one option if applicable

   a. ( ) because it is a compulsory subject
   b. ( ) because I am interested in various English cultures
   c. ( ) because I need it in order to obtain my degree
   d. ( ) because I will need it in my target career
   e. ( ) because I need it to help me in my academic studies
   f. ( ) because it is interesting and I enjoy learning it
   g. ( ) because it will help me to be a successful medical professional
   h. ( ) because I need it when I travel abroad
   i. (   ) because it is easy, therefore I can get good grades and upgrade my GPA
   j. ( ) because I need it for my daily life
   k. ( ) because it will make me a prestigious and better educated person
   l. ( ) because it will broaden my knowledge and view
   m. Other, please specify..
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2. Which language do you prefer in order to communicate with your work colleagues in your target career? Please tick (✓) under the box that best expresses your opinion

Arabic only	English only	English & Arabic

3. How much do you enjoy studying English at the college?

Very enjoyable	Quite enjoyable	Not very enjoyable	Not enjoyable at all

4. How important do you believe the ESP course is for your academic studies at the college?

Very important	Quite important	Not very important	Not important at all

5. How important do you believe the ESP course is for your target career?

Very important	Quite important	Not very important	Not important at all

253

6. Please rate each **SKILL** below **TWO TIMES**. First, indicate how important do you think these skills are in your academic studies in the college, and **THEN** indicate how important do you think these skills are in your target career. Please put a tick (✓) in the box that best expresses your opinion.

For my **studies in the college** this skill is (tick one)				Skills	For my **target career** this skill is: (tick one)			
Very important	Quite important	Not very important	Not important at all		Very important	Quite important	Not very important	Not important at all
				Speaking				
				Listening				
				Writing				
				Reading				

7. Please rate each **SKILL/AREA** below **TWO TIMES**. First, rate your current ability in each skill/area, and **THEN** indicate to what extent the ESP course had helped you in improving the skill/area. Please put a tick (✓) in the box that best expresses your opinion.

My current ability in this skill/area is:						Skills/Areas	The help of the ESP course in improving this skill/area was:			
Excellent	Very good	Good	Satisfactory	Poor	Very poor		Very Helpful	Somewhat	Not very Helpful	Not at all Helpful
						Speaking				
						Listening				
						Writing				
						Reading				
						Grammar				
						General Vocabulary				
						Medical Vocabulary				
						English overall				

8. What the language skill do you think the ESP course you joined at the college improved most? Please choose one.

Speaking	Writing	Listening	Reading

9. To what extent, do you think, in general, that the currently used textbooks in the ESP course are appropriate and relevant to your needs?

Very appropriate	Quite appropriate	Not very appropriate	Not appropriate at all

10. How would you evaluate the ESP course in general terms? Please put a tick (✓) under the box that best expresses your opinion

Very successful & effective	Successful & effective in most of its aspects	Successful & effective only in few of its aspects	Not successful & effective at all

11. Please rate each **COURSE OBJECTIVE** below **THREE TIMES**. First, indicate to what extent the objective had been achieved. Second, indicate how important the objective is for your academic studies in the college. Third, indicate how important the objective is for your target career after graduation. Please put a tick (✓) in the box that best expresses your opinion.

This objective was (tick one)				Course Objectives	For my studies in the college this objective is: (tick one)				For my target career this objective is: (tick one)			
Fully achieved	Partially achieved	Minimally achieved	Not achieved at all		Very important	Quite important	Not very import.ant	Not important at all	Very important	Quite important	Not very import.ant	Not important at all
				To use the new medical terms in all four skills of language								
				To use the medical terms in professional communication								
				To recognize all body systems with their names and medical courses								
				To comprehend and write short medical situations using the medical terms								
				To understand, read and write short medical reports.								
				To write a text using the acquired writing techniques								
				To produce good writing by taking care of spelling, punctuation, cursive handwriting and grammatical points								
				To express ideas correctly and to follow writing techniques								
				To apply all grammatical points in both spoken and written English								
				To understand any spoken or written instruction in English								
				To form everyday statements and questions								
				To explain student's related problems to the teachers in spoken English with fluency of speech and accuracy of pronunciation								
				To comprehend lectures in English language and take notes and dictation in English language								
				To read English with pleasure and interest and comprehend what you read								
				To read faster and read in ways that meet the students' expectations								
				To understand and practice the English reading strategies								
				To talk and think about a text in new ways								
				To formulate and articulate ideas more precisely								
				To experience the connections between reading and writing								
				To find out new ideas, facts and experiences								
				To think in English and build a linguistic competence as well as performance								

12. Please indicate to what extent do you agree or disagree with the following statements:

Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
a. The ESP course has met my language needs to function satisfactorily in my academic studies.				
b. The ESP course has met my language needs to function satisfactorily in my target career.				
c. English classes are relevant to my needs				
d. Instruction should focus on Medical English				
e. Instruction should focus on General English				
f. The present time assigned for the course is insufficient, and more time should be given to English language instruction in the college				
g. The content of the course's textbooks is above my English language level				
h. The teaching methodologies used by the language teachers are appropriate and useful				
i. Supplementary materials (e.g. audio-video tapes, overhead transparencies and computers) are used in English classes				
j. I am given the opportunity to work in groups or pairs in English classes				
k. Teachers of English language motivate me in English classes				
l. Teachers of English language in my course are helpful in their teaching				
m. The assessment procedures used in the course are appropriate				
n. Having a fluent command of written and oral English is an integral part to be a successful medical professional.				
p. English ought not to be necessary in Saudi hospitals and medical clinics				

13. Please write below any problems or difficulties you encounter while learning English in your ESP course:

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14. Please write below any problems or difficulties you encounter while using English at your college or outside the college:

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15. Thank you very much for your kind participation and help and time. Please feel free to add your comments or suggestions to improve the ESP course and make it effective and appropriate (you can use the back of this sheet if you need).

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APPENDIX B2: Graduates' (Employees) Questionnaire

بسم الله الرحمن الرحيم

أخي الموظف وخريج كليات العلوم الصحية   سلمه الله

السلام عليكم ورحمة الله وبركاتة ،،،، وبعد

لقد تم اختيارك ضمن عينة عشوائية من طلاب البرنامج وذلك لتعبئة هذا الاستبيان والذي وضع من أجل معرفة إحتياجات اللغة الإنجليزيـة لديك في عملك الحـالي وعندما كنت طالباً في الكليـة، وأيضـا تقييمك لبرنـامج اللغة الإنجليزية الذي اخذته في الكلية ورأيك في أهدافه و مكوناته وطرقه بشكل عام ومدى مناسبة البرنامج لحاجاتك الأكاديمية والعملية، وهذا الاستبيان جزء من مجموعة أدوات يستخدمها الباحث لتقييم البرنامج بشكل شامل.

إن حرصك على تعبئة هذا الاستبيان يصب في مصلحتك بالدرجـة الأولـى وهـي فرصـة مناسبة لك من أجل أن تبدي رأيك لمن يقوم بإعداد منهج برنامج اللغة الإنجليزية وتشير إلى مـاهو مهم فيمـا يخص اللغة الإنجليزيـة في عملك الحـالي لأن هذا البرنـامج لم يوضع إلا لتزويد طلابه بالمهـارات اللغويـة اللازمـة لتسـهيل مهـامهم الدراسية والعملية باللغة الإنجليزية.

لن تأخذ تعبئة هذا الاستبيان من وقتك أكثر من 25 دقيقة وأرجو أن تجيب على الأسئلة بتأني وروية حيث أنه ليس هناك إجابة خاطئة أو صحيحة وإنما ماتقوم به هو مساعدة منك لجمع معلومات قيمة يحتاجها الباحث لإكمال الدراسة التي يقوم بها من أجل تطوير وتحسين مستوى تعليم وتدريس اللغة الإنجليزية في الكليات الصحية، وكن على ثقة بأن إجابتك سوف تستخدم بسرية تامة للبحث الذي اقوم به ولضمان المصداقية والأمانـة في التعبير عن رأيك بكل حرية فليس مطلوباً منك كتابة اسمك، وكل مـاهو مطلوب منك هو أن تضع علامـة (✓) في المربع المناسب الذي يعبر عن رأيك، وإذا أردت أن تضيف أي اقتراح أو تعليق فليكن ذلك في آخر صفحة.

(مشاركتك في تعبئة هذا الاستبيان تطوعية وبإمكانك تركه فارغاً إذا لم ترغب بالمشاركة فيه)

1. Do you want to learn English? Yes ( )   No ( )

   If 'No', please explain why? If 'Yes' Why do you want to learn English?
   Tick (✓) more than one option if applicable

   a. ( ) because my job often requires me to use English
   b. ( ) because I am interested in various English cultures
   c. ( ) because it makes me a more qualified job candidate in my chosen field
   d. ( ) because I need it for promotion in my career
   e. ( ) because I need it to help me in my future academic studies
   f. ( ) because it is interesting and I enjoy learning it
   g. ( ) because it will help me to be a successful medical professional
   h. ( ) because I need it when I travel abroad
   i. ( ) because I need it for my daily life
   j. ( ) because it is the global language of medicine
   k. ( ) because it will make me a prestigious and better educated person
   l. ( ) because it will broaden my knowledge and view
   m. Other,   please specify...
   ....
   ......

2. Which language do you prefer in order to communicate with your work colleagues while performing your job in the hospital? Please tick (✓) under the box that best expresses your opinion

Arabic only	English only	English & Arabic

3. How much did you enjoy studying English at the college?

Very enjoyable	Quite enjoyable	Not very enjoyable	Not enjoyable at all

4. How important do you believe the ESP course was for your academic studies at the college?

Very important	Quite important	Not very important	Not important at all

5. How important do you believe the ESP course was for your current career?

Very important	Quite important	Not very important	Not important at all

6. Please rate each **SKILL** below **TWO TIMES**. First, indicate how important do you think these skills were in your academic studies in the college, and **THEN** indicate how important do you think these skills are in your current career. Please put a tick (✓) in the box that best expresses your opinion.

For my **studies in the college** this skill was (tick one)				Skills	For my **current career** this skill is: (tick one)			
Very important	Quite important	Not very important	Not important at all		Very important	Quite important	Not very important	Not important at all
				Speaking				
				Listening				
				Writing				
				Reading				

7. Please rate each **SKILL/AREA** below **TWO TIMES**. First, rate your current ability in each skill/area, and **THEN** indicate to what extent the ESP course had helped you in improving the skill/area. Please put a tick (✓) in the box that best expresses your opinion.

My current ability in this skill/area is:						Skills/Areas	The help of the ESP course in improving this skill/area was:			
Excellent	Very good	Good	Satisfactory	Poor	Very poor		Very Helpful	Somewhat	Not very Helpful	Not at all Helpful
						Speaking				
						Listening				
						Writing				
						Reading				
						Grammar				
						General Vocabulary				
						Medical Vocabulary				
						English overall				

8. What the language skill do you think the ESP course you joined at the college improved most? Please choose one.

Speaking	Writing	Listening	Reading

9. To what extent, do you think, in general, that the used textbooks in the course were appropriate and relevant to your needs?

Very appropriate	Quite appropriate	Not very appropriate	Not appropriate at all

10. How would you evaluate the ESP course in general terms? Please put a tick (✓) under the box that best expresses your opinion

Very successful & effective	Successful & effective in most of its aspects	Successful & effective only in few of its aspects	Not successful & effective at all

11. Please rate each **COURSE OBJECTIVE** below **THREE TIMES**. First, indicate to what extent the objective had been achieved. Second, indicate how important the objective was for your academic studies in the college. Third, indicate how important the objective is for your current career. Please put a tick (✓) in the box that best expresses your opinion.

This objective was (tick one)				Course Objective	For my studies in the college this objective was: (tick one)				For my current career this objective is: (tick one)			
Fully achieved	Partially achieved	Minimally achieved	Not achieved at all		Very important	Quite important	Not very import.ant	Not important at all	Very important	Quite important	Not very import.ant	Not important at all
				To use the new medical terms in all four skills of language								
				To use the medical terms in professional communication								
				To recognize all body systems with their names and medical courses								
				To comprehend and write short medical situations using the medical terms								
				To understand, read and write short medical reports.								
				To write a text using the acquired writing techniques								
				To produce good writing by taking care of spelling, punctuation, cursive handwriting and grammatical points								
				To express ideas correctly and to follow writing techniques								
				To apply all grammatical points in both spoken and written English								
				To understand any spoken or written instruction in English								
				To form everyday statements and questions								
				To explain student's related problems to the teachers in spoken English with fluency of speech and accuracy of pronunciation								
				To comprehend lectures in English language and take notes and dictation in English language								
				To read English with pleasure and interest and comprehend what you read								
				To read faster and read in ways that meet the students' expectations								
				To understand and practice the English reading strategies								
				To talk and think about a text in new ways								
				To formulate and articulate ideas more precisely								
				To experience the connections between reading and writing								
				To find out new ideas, facts and experiences								
				To think in English and build a linguistic competence as well as performance								

263

12. Please indicate to what extent do you agree or disagree with the following statements:

Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
a. The ESP course had met my language needs to function satisfactorily in my academic studies				
b. The ESP course had met my language needs to function satisfactorily in my current career.				
c. English classes are relevant to my needs				
d. Instruction should focus on Medical English				
e. Instruction should focus on General English				
f. The present time assigned for the course is insufficient, and more time should be given to English language instruction in the college				
g. The content of the course's textbooks was above my English language level				
h. The teaching methodologies used by the language teachers were appropriate and useful				
i. Supplementary materials (e.g. audio-video tapes, overhead transparencies and computers) were used in English classes				
j. I was given the opportunity to work in groups or pairs in English classes				
k. Teachers of English language motivated me in English classes				
l. Teachers of English language in my course were helpful in their teaching				
m. The assessment procedures used in the course were appropriate				
n. Having a fluent command of written and oral English is an integral part to be a successful medical professional.				
p. English ought not to be necessary in Saudi hospitals and medical clinics				

13. Please write below any problems or difficulties you had encountered while learning English in your ESP course:

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264

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14. Please write below any problems you encounter while using English in your current career:

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15. Thank you very much for your kind participation and help and time. Please feel free to add your comments or suggestions to improve the ESP course and make it effective and appropriate (you can use the back of this sheet if you need).

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APPENDIX B3: ESP Teachers' Questionnaire

Dear Language Teacher,

Please find enclosed a questionnaire on the students' language needs and the ESP course provided by the Health Sciences Colleges.

This questionnaire contains closed and open questions that ask about your perceptions of students' present and target language needs, and attitudes towards their ESP course's objectives, content and methodology as well as your evaluation of the whole course in general terms. Such data is of paramount importance in the process of developing the current ESP course which is the topic of my PhD thesis (at the University of Leicester, UK). I am using this questionnaire with other data gathering means to collect information on students' language needs, and process and products of the course under investigation.

As a staff member in the ESP course, you can provide invaluable data for an effective and fruitful course evaluation which would be to the benefit of the course and all its stakeholders. This questionnaire allows you to give your opinions anonymously and in a more systematic way, and help us to make sure that the English course is meeting the needs and interests of its students. I would like to assure you that there are no right or wrong answers, and all answers you provide whether positive or negative would be severely treated confidentially and used exclusively for the purposes of this research. Please include your personal postal address or e-mail at the end of this questionnaire in case you wish to be informed about the final results and recommendations of this research.

It would not take you more than 25 minutes to complete the whole questionnaire. All you need to do is to tick (✓) under the box that best expresses your opinion. Also, please take your time to answer the open questions in the last page as much as you can. Meanwhile, if you have any further comments or suggestions towards the improvement of the course, you are most welcome to write them down. Please do not hesitate to contact me if needs be to clarify a questions item

(**Please note that answering this questionnaire is totally voluntary. If you do not like to take part in this questionnaire, you can leave it blank**)

Thank you very much in advance for your kind help and cooperation and time.

1. How many years have you been teaching English at the HSC? ....

2. Have you ever joined an ESP (or Medical English) teacher-training course? Yes ( )   No ( ), if 'yes' please give details

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3. How much do you enjoy teaching English at the college? Please put a tick (✓) in the box that best expresses your opinion.

Very enjoyable	Quite enjoyable	Not very enjoyable	Not enjoyable at all

4. How important do you believe the ESP course is for your students' academic studies at the college?

Very important	Quite important	Not very important	Not important at all

5. How important do you believe the ESP course is for your students' target careers?

Very important	Quite important	Not very important	Not important at all

267

6. Please rate each **SKILL** below **TWO TIMES**. First, indicate how important do you think these skills are in your students' academic studies in the college, and **THEN** indicate how important do you think these skills are in your students' target careers. Please put a tick (✓) in the box that best expresses your opinion.

For my students' **studies in the college** this skill is (tick one)				Skills	For my students' **target careers** this skill is: (tick one)			
Very important	Quite important	Not very important	Not important at all		Very important	Quite important	Not very important	Not important at all
				Speaking				
				Listening				
				Writing				
				Reading				

7. Please rate each **SKILL/AREA** below **TWO TIMES**. First, rate your students' current ability in each skill/area, and **THEN** indicate to what extent the ESP course had helped them in improving the skill/area. Please put a tick (✓) in the box that best expresses your opinion.

Students' current ability in this skill/area is:						Skills/Areas	The help of the ESP course in improving this skill/area was:			
Excellent	Very good	Good	Satisfactory	Poor	Very poor		Very Helpful	Somewhat	Not very Helpful	Not at all Helpful
						Speaking				
						Listening				
						Writing				
						Reading				
						Grammar				
						General Vocabulary				
						Medical Vocabulary				
						English overall				

8. What the language skill do you think the ESP course at the college improved most? Please choose one.

Speaking	Writing	Listening	Reading

9. To what extent, do you think, in general, that the currently used textbooks in the ESP course are appropriate and relevant to your students' needs?

Very appropriate	Quite appropriate	Not very appropriate	Not appropriate at all

10. How would you evaluate the ESP course in general terms? Please put a tick (✓) under the box that best expresses your opinion

Very successful & effective	Successful & effective in most of its aspects	Successful & effective only in few of its aspects	Not successful & effective at all

11. Please rate each **COURSE OBJECTIVE** below **THREE TIMES**. First, indicate to what extent the objective had been achieved. Second, indicate how important the objective is for your students' academic studies in the college. Third, indicate how important the objective is for your students' target careers. Please put a tick (✓) in the box that best expresses your opinion.

This objective was (tick one)				Course Objectives	For students' academic studies this objective is: (tick one)				For students' target careers this objective is: (tick one)			
Fully achieved	Partially	Minimally achieved	Not achieved at all		Very important	Quite important	Not very important	Not important at all	Very important	Quite important	Not very important	Not important at all
				To use the new medical terms in all four skills of language								
				To use the medical terms in professional communication								
				To recognize all body systems with their names and medical courses								
				To comprehend and write short medical situations using the medical terms								
				To understand, read and write short medical reports.								
				To write a text using the acquired writing techniques								
				To produce good writing by taking care of spelling, punctuation, cursive handwriting and grammatical points								
				To express ideas correctly and to follow writing techniques								
				To apply all grammatical points in both spoken and written English								
				To understand any spoken or written instruction in English								
				To form everyday statements and questions								
				To explain student's related problems to the teachers in spoken English with fluency of speech and accuracy of pronunciation								
				To comprehend lectures in English language and take notes and dictation in English language								
				To read English with pleasure and interest and comprehend what you read								
				To read faster and read in ways that meet the students' expectations								
				To understand and practice the English reading strategies								
				To talk and think about a text in new ways								
				To formulate and articulate ideas more precisely								
				To experience the connections between reading and writing								
				To find out new ideas, facts and experiences								
				To think in English and build a linguistic competence as well as performance								

12. Please indicate to what extent do you agree or disagree with the following statements:

Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
a. The ESP course has met my students' language needs to function satisfactorily in their academic studies				
b. The ESP course has met my students' language needs to function satisfactorily in their target careers.				
c. English classes are relevant to their needs				
d. Instruction should focus on Medical English				
e. Instruction should focus on General English				
f. The present time assigned for ESP is insufficient, and more time should be given to English language instruction in the college				
g. The content of the course's textbooks is above my students' English language level				
h. The teaching methodologies used by the language teachers are appropriate and useful				
i. Supplementary materials (e.g. audio-video tapes, overhead transparencies and computers) are used in English classes				
j. Students are given the opportunity to work in groups or pairs in English classes				
k. Teachers of English language motivate students in English classes				
l. Teachers of English language in the course are helpful in their teaching				
m. The assessment procedures used in the course are appropriate				
n. Having a fluent command of written and oral English is an integral part to be a successful medical professional.				
p. English ought not to be necessary in Saudi hospitals and medical clinics				

13. Please write below any problems or difficulties you think your students encounter while learning English in their ESP course:

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14. Please write below any problems or difficulties you encounter in teaching English at this course:

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15. Thank you very much for your kind participation and help and time. Please feel free to add your comments or suggestions to improve the ESP course and make it effective and appropriate (you can use the back of this sheet if you need).

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APPENDIX D: SAMPLES OF WORKPLACE DOCUMENTS

المملكة العربية السعودية
وزارة الصِّحَّة
المديرية العامة للشؤون الصحية بمنطقة القصيم

KING FAHAD SPECIALIST HOSPITAL
Buraidah, Al-Qassim, K.S.A.

RADIOLOGY DEPARTMENT

URGENT!!!

11 May 2008 (06 Jumada Awal 1429)

TO   :   ENGR. AHMED AL-SADOUN
               Director of General Services

THRU   :   DR. YOUSEF AL-MANSOUR
               Hospital Director

FROM   :   DR. ALAA KHALIFA
               Chief of Radiology

SUBJECT   :   MAINTENANCE OF RADIOLOGY EQUIPMENT

This to bring to your kind notice that, **from now on** **NO RADIOLOGY STAFF** should underline directly contact the **Bio-Medical Department** by interrupting work, for any equipment malfunction, **except through the proper channel** which is, via the **CHIEF of the DEPARTMENT** or through the Personnel responsible for equipment in our department (**MR. ALI AL-GHAFIS**).

Thank you for your cooperation.

DR. ALAA KHALIFA
Chief of Radiology

Dr. Alaa Khalifa
F-1 / 52227
Consultant Radiologist
KFSH-Buraidah

Copy to   : Hospital Director
               : Chief of Radiology Technologists
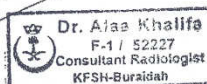
273

EmployeeID	Gender
Name	**Nationality**
Job No	**Marital Status**
Job Title	**Date of birth**
Firm PSCCQ	**Age**
TLD No 5545	**TLD date of start** 23/06/1428

- TLD or film badge is a mean to detect the radiation dose you have been exposed to

- Apply a further care to this device _keep it worn anytime you are within work field

- Don't expose this device to direct sun rays

- Losing this device will cost you 200 SR

- It is recomended to wear this device over the lead apron at thyroid level

- TLD or Film badge is sent every three months for analysis and dose readings

- Before going for vacation, device should be received by Chief Technologist

- At end of training season or contract, device should be received by Chief Technologist

- It is recommended NOT to keep TLD closely to a radiation source

- جهاز قياس التعرض الإشعاعي هو الوسيلة الوحيدة لمعرفة مدى الجرعة الإشعاعية المتعرض لها

- يجب الحفاظ على هذا الجهاز و إستخدامه دائماً ضمن نطاق التعرض الإشعاعي

- لا تعرض هذا الجهاز لأشعة الشمس المباشرة

- فقدان هذا الجهاز سيكلفك 200 ريال

- ينصح بإرتداء هذا الجهاز فوق المريلة الواقية و بمحاذاة الغدة الدرقية

- يتم إرسال هذا الجهاز كل ثلاثة أشهر للإدارة ذات العلاقة للتحليل و إستنتاج القراءات

- يجب تسليم هذا الجهاز لمكتب رئيس الفنيين قبل تمتع الموظف بالإجازة

- يجب تسليم هذا الجهاز لمكتب رئيس الفنيين عند إنتهاء الفترة التدريبية أو العقد

- ينصح بعدم حفظ جهاز قياس التعرض الإشعاعي قريباً من مصادر الأشعة

Employee Name   :   ....

Date   :   ..../........../..............

Signature   :   ....

274

HOSPITAL:	Health Care No.: ☐☐☐☐☐☐☐☐☐☐☐
	Name: ....
	Age: ☐☐ Yrs./Month Sex: ☐ M ☐ F
	Nationality : ....
	Consultant In-Charge: ....
	Dept.: .... Unit: ....

X-RAY REQUEST & REPORT FORM   نموذج طلب وتقرير الأشعة

SOURCE:

Type of Request: Routine ☐   Emergency ☐   Portable ☐

Allergies: Iodine ☐   Others (Specify)

L.M.P. .... Contraceptive Pill: Yes ☐   No ☐   Pregnant: ☐ Yes   No ☐

Examination Requested: ....

Brief Clinical Description: ....
....
....

Diagnosis: ....
....
....

Patient's Next Appointment with Clinic: ....

Physician's Name: .... Signature: .... Date:

Appointment for xray (Date and Time)

FOR USE OF X-RAY DEPARTMENT

Radiographer:		Checked By:	
Screening Time:		X-Ray No.:	

POSITION			KV	MAS		TOTAL NO. OF FILMS	
35 x 43	35 x 35	35 x 40	30 x 40	24 x 30	18 x 24	DENTAL	OCC

R E P O R T

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Requested by: .... Signature: .... Date: ......

Form No. 38   نموذج رقم ٣٨

وزارة الصحة
Ministry of Health

مديرية الشئون الصحية بمحافظة جدة
مستشفى الملك عبد العزيز ومركز الأورام بجدة
KING ABDULAZIZ HOSPITAL & ONCOLOGY CENTER - JEDDAH

Medical Record:

Name: ....

Age: [ ][ ] Yrs:/ Month   Sex: [ ] M [ ] F

Nationality: ....

Consultant In-Charge: ....

Ward: .... Room / Bed ....

NUTRITIONAL ASSESSMENT

S: Diet Prior to Admission: ....
Eating Habits: ....
Preferences: ☐ Culturat/ Ethnic: ☐ Religious: ☐ Other:
Food Allergies: .... Intolerances: .... Dislikes: ....
Usuat Appetite: .... Weight History: ....
Diagnosis: ....
Diet Order: .... Av. Po. Intake: ....
Difficutty: ☐ Chewing ☐ Swaltowing ☐ Nausea ☐ Vomiting ☐ Diarthes

O: Diagnosis: ....
Diet Order: .... Av. Po. Intake: ....
Height: .... Weight: .... Kg. .... Desirable Weight: .... Kg. + 10% ....

LAB

Date:	Glu	Bun/Creat	Na +	K +	H/H	Alb

Potential - Food - Interaction: ....
Food - Drug Counseling: ....

A: Nutritional Risk Factors

☐ Inadequate PO Intake   ☐ Chewing/ Swallowing Problem
☐ Hx Significant Weight Loss   ☐ Abnormal Lab Values
☐ Knowledge / Compliance Deficit ☐ Dx of GI Tract
☐ Poor Skin Integrity   ☐ Surgical Geriatric Patient
☐ Increased Nutritional Needs   ☐ Other: ....

P: Nutritional Risk

☐ Minimal   ☐ Moderate   ☐ High

Continue / Progress Diet as ordered
Assist In menu selection
Monitor: ....
Recommendations to Physician: ....

Date: ....   Patient Education
☐ Instructed .... In .... Diet
☐ Determined education needs of patient/ family.
☐ Assessed abilities / readiness to leam
☐ Adjusted instruction d/t   ☐ Cutturat. Religious Practice   ☐ Language bamier
☐ Reviewed take-home written educational materials and individual meal plan
Evaluation: Comprehensive: .... Receprivity: ....

Date	Nutrsing Progress Notes

KAAH & OC   NUTRITIONAL ASSESSMENT   Code#APP-NAF-00

Ministry of Health

JEDDAH
KINGDOM OF SAUDI ARABIA

قسم الإسعاف والطوارئ
ACCIDENT & EMERGENCY DEPARTMENT

File No.   رقم الملف

الاسم   Name

الجنس   M/F   ذكر / أنثى

العنوان   Date of Birth

Address

Tel. No.   تليفون

Nationality   الجنسية

Occupation (School if Child)   المهنة

Next of Kin   عنوان القريب

Treating Doctor   الطبيب المعالج

Place of Injury   مكان الإصابة

RTA   حادث سيارة
Sports   رياضة
Other (Please Specify)

Home   منزل
Work   عمل
Street   شارع
Accident   حادثة
No.   رقم

Time of Injury   وقت الإصابة

Time of Arrival   وقت الوصول

Mode of Arrival   طريقة الوصول

Referred by   حول بواسطة

Date   التاريخ

DATE
ARABIC
MODE OF ARRIVAL   ☐AMB   ☐STRETCHER   ☐WALK   ☐WHEELCHAIR   ☐CRUTCHES   ☐OTHERS   ☐DIABETIC

CURRENT MEDICATIONS   LMP   WEIGHT   LAST TETANUS   ALLERGIES   Yes ☐   No ☐

EMERG. CARE PRIOR ARRIVAL BY WHOM   Yes ☐   No ☐

TIME	BP	PULSE	RESP	TEMP		MED.V.S.	DOSE	ROUTE	TIME	RN SIGNATURE

CHIEF COMPLAINT:

TRIAGE NOTES:

HISTORY OF PRESENT ILLNESS:

GENERAL EXAMINATION :
LEVEL OF CONSCIOUSNESS :
PUPILS:
CYANOSIS:
DYSPNEA:
DEHYDRATION :
EDEMA :
ANEMIA :

☐20-V43 Car & Road Accident
☐20-W19 Fall & Accidentally Injuries
☐20-W76 Other Accident
☐20-X09 Burn
☐19-T75.1 Firearm,Drowning
☐11-K35.9 Acute Appendicitis
☐11-K21.9 Diseases of digestive System
☐19-T62.9 Food Poisoning
☐19-T50.9 Drug & Cleaning agent poisoning
☐20-W44 Foreign Bodies
☐15-O06.1 Abortion
☐15-O80 Delivery
☐21-Z33 Pregnancy

☐14-N93.9 Uterine & Vaginal Bleeding
☐14-N39.9 Disease of the genitourinary system
☐01-A89 Infectious & Parasitic Diseases
☐04-E10.9 Diabetes Mellitus
☐09-I25.9 Ischemic Heart Diseases
☐09-I51.9 Other Heart Diseases
☐10-J98.9 Respiratory System Diseases
☐10-J45.9 Bronch Asthma

☐03-D75.9 Blood Diseases
☐03-D57.O - S C A
☐07-H57.9 Eye Diseases
☐06-G98 Nervous System
☐09-I69.4- C V A
☐10-J34.8 E N T
☐20-W54 Dog Bite or Other Animal
☐20-X22 Scorpion or Snake Bite
☐16-P00 Diseases of Neonatals
☐11-R08.9 Dental
☐12-L98.9 Dermatology
☐99-991 Other

Physician Name & Stamp

01-00010   ACCIDENT & EMERGENCY   استمارة الإسعاف والطوارئ

المملكة العربية السعودية
وزارة الصحـــــة
مديرية الشئون الصحية بجـــدة

Date :   /   /

التاريخ   /   /   ١٤   هـ

وزارة الصحة
Ministry of Health

« وصفة أدوية نفسية خاضعة للرقابة »
CONTROLLED PSYCHIATRIC PRESCRIPTION

PATIENT NAME : _____ : اسم المريض رباعيا

NATIONALITY : _____ : الجنسية   SEX : _____ : الجنـس

FILE NO. : _____ : رقم الملف   AGE : _____ : السـن

DIAGNOSIS : _____ : التشخيص

(بالاحرف الانجليزية الكبيرة بدون اختصار)
(Print in Capital letters without Abbreviating)

Medicine Scientific Name : _____ : اسم الدواء العلمي

Pharmacological Composition : _____ : شكله الصيدلاني

Concentration : _____ : تركيزه

Requested Quantity (by number) : _____ عددا : الكمية المطلوبة

Usage : _____ : طريقة الاستخدام

Doctor's Name : _____ : اسم الطبيب ثلاثي

Speciality : _____ : التخصص

License No. : _____ : رقم الترخيص

Doctor's Signature and stamp : _____ : توقيع الطبيب والختم

Name of issuing pharmacist : _____ : اسم الصيدلي الذي قام بالصرف

License No. : _____ : رقم الترخيص

Date of Issue : _____ : تاريخ الصرف

Pharmacist's Signature : _____ : توقيع الصيدلي

Pharmacy Stamp : _____ : ختم الصيدلية

01-00108

278

(Student 4)

Do you think English is important in your academic studies and target career? Yes, sure.

To what extent do you think the four main skills are important to your target career? I think speaking is very important... or let's say the most important. Listening is also very important because I should understand what the doctor is saying. Reading and writing skills are important.

To what extent do you think the four main skills are important to your academic studies in this college? I think reading is very important because in my subject areas I should read very much to get the required knowledge from our textbooks and the teachers' handouts... Regarding listening, to some extent, listening is important because I need to understand what our subject teachers are saying in lectures... For writing, it is important, especially during examinations, as my subject teachers ask me to write short paragraphs about some medical topics... I would like to speak English but our subject teachers do not let us speak too much and this is why I think it is unimportant.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, certainly, one should be fluent in oral and written English if one is going to be a medical professional.

How well do you think the current ESP course meets both your academic study and target career needs? Not much, because I still lack important language skills, like speaking.

Could you tell me what you like and do not like about the current ESP course? I don't like the assessment scheme. The course assessment scheme creates the idea that I should get as many marks as I can regardless of how much language I actually learn... I like Medical Terminology textbooks.

How helpful is the current ESP course in improving the following:

Your level of English? It is helpful, but not very.
Your language skills (reading, listening, writing, speaking), grammar, vocabulary (general, medical)? The course was somewhat helpful in improving my listening, writing, reading and grammar… but not helpful enough in speaking. It is really very helpful in improving my vocabulary, particularly medical vocabulary.

Have you encountered any problems or difficulties while learning English at the HSC? If yes, could you tell me about them? Yes, I have some problems. Firstly, the method of explaining and clarifying the lessons is not good at all… some textbooks are good but the teachers do not explain the important points clearly… They also do not make the lessons very interesting. Also, some Arabic-speaking teachers use Arabic in the classroom.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs?
More time is needed, as the course is too short. In addition, technology should be used in teaching our courses... Textbooks should include medical topics and the current assessment scheme should be changed**.**

If you would like to add anything you are very welcome. Thanks.

Thank you very much for your time and participation.

(Graduate 3)

According to your working experience, do you think English is important in your current career? English is very important in our work here... It is more important than Arabic.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, you know English now is the language of medicine... Actually, you have to be a good speaker and writer of English in order to understand your work and to carry out your duties.

How often do you use English in your career? 100%, I mean we always use English in our career.

To what extent do you think the four main skills are important to your current career? Basically, they are all very important. However, I think speaking and listening skills are slightly more important than reading and writing skills. I always need to speak to my English-speaking colleagues and patients about medical issues. I also have to listen to my doctors' instructions. For reading, I often need to read departmental memos, patients' files and other work-related documents such as X-ray requests and report forms.

Have you encountered problems while using English at your workplace? If yes, could you tell me about them? Not all the time. I have problems sometimes, like misspelling. I have problems spelling some words when I fill out requests for CT reports, but I can still understand.

To what extent do you think the four main skills were important to your academic studies, when you were studying at the HSC? During that time, our academic studies required us to read a lot to get information from textbooks and other references, so reading was very important. Also, writing was very important because we were always asked to write in mid-term and final examinations. As for listening, it was fairly important. Speaking was important, since we sometimes asked our lecturers for clarification.

How helpful was the ESP course in improving the following:
Your level of English? In fact, it improved my English language to some extent. However, it was not very helpful.
Your language skills (reading, listening, writing, speaking), grammar, vocabulary (general, medical)? I feel that the course was useful, especially in writing and listening… It was less useful in reading, speaking, grammar and vocabulary.

How well do you think the ESP course at the HSC met both your academic study and target career needs? That course was not effective in meeting my academic and work needs.

Did you encounter any problems or difficulties while you were learning English at the HSC? If so, could you tell me about them? Yes, there were some problems.

The teaching members of staff were non-native speakers of English… Some did not speak fluently… they often mispronounced English words. Also, the textbooks were much harder than our English language level when we started studying them... There was a big gap between our level and the textbooks.

Could you tell me what you like and do not like about the ESP course? The time allocated to the course is too short… they should increase the contact hours of listening, reading and writing… The timetable is not well-organized. I liked writing and listening classes.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? I think they should concentrate on the English needed for medical studies and professions, not only general topics. Also, I suggest that they increase the number of hours in the course.

If you would like to comment or add anything you are very welcome. No.

Thank you very much for your time and participation.

(Teacher 1)

How many years have you been a teacher at this college? Nine years, I think.

Have you ever attended a teacher training course, in either general or medical English? Regarding general English, I have done my master's degree, but I haven't taken any special course for teaching ESP or medical English. In fact, as ESP teachers, we need such training. It is definitely necessary.

Do you think that English is important to your students in their academic study and target careers? English is very important, particularly when they are dealing with medical sciences… I mean English is necessary when they start their learning… If they don't learn properly, how can they learn without English?… There are many books only in English which are not available in any other languages, so they need to know English. This is a basic thing in order to get their knowledge about medical science, whatever. Another thing... you know here in Saudi Arabia people come from different countries… at the same time, doctors are working over there in their hospitals where they are going to join too. This means that they have to talk with them in English… If they do not understand English, how could they do their work?

What do you want your students to be able to do with English? It varies... I mean if the students study a lot... Reading, particularly... that gives them vocabulary, lets them know grammar and other things, it increases their thinking capabilities so that they can do better if they read at their home also. Then they will be able to comprehend medical texts in their references.

What do you perceive as the needs of your students for their academic studies and target careers? The basic thing is motivation... Motivation is a must in order to learn English... They should know why they want to learn English and that will motivate them. For their academic studies and target careers, they should at least learn enough English so that they can understand their books and explain whatever they have understood.

What do you need to satisfy your students' needs? The thing is that we need a suitable syllabus, a lab... I mean a proper big lab, although we have a lab.

How helpful is the current ESP course in improving their overall level of English, language skills, grammar and vocabulary (general, medical)? The majority of our students achieved a reasonable level of improvement, particularly in writing... but it is unsatisfactory... I mean, of course it helps, but because the course is above their level we don't get the results we want. The ultimate result which we want is not there, because there is a difference between their level and the books they are studying.

To what extent do you think the four main skills are important in your students' academic studies? We cannot ignore the importance of English skills for the students' academic studies, because they need each skill to perform a certain task... Of course, they all are important. In my opinion, reading is the most necessary skill in their studies. It is very important… Listening and writing are important… Speaking is

not very important... Reading is a major source of academic knowledge and it can help students in their academic learning… They also need it to understand questions in exams.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes. They should understand their books here in the college, and apart from that when they go to their workplace... hospitals, there they can write short messages, they can talk with their colleagues, they can understand what the doctors are saying... These types of things.

To what extent do you think the four main skills are important in your students' target careers? The thing is that all four skills are important and necessary, but there may be variations, as I think ... they need speaking very much. So, speaking and listening are the most important skills, writing is third, because they are sometimes required to write medical reports in English, and reading is last.

Could you tell me what you like and do not like about the current ESP course? The thing is that the books don't match the level of our students. We need a course prepared by the ministry itself, suited to the students of HSCs.

Do you encounter any problems while teaching English at the HSCs? What about your students, do you think they encounter any problems in learning English? No, I don't have any problems, but the level of the students when they come from their schools, when they join the college... they do not understand anything... At that time I face difficulty in order to explain things... Most of the topics in the listening and speaking textbook are based on western culture, which is difficult for our students to understand. Also, we have two quizzes and two monthly tests in each semester… This is too taxing… I mean, it causes both teachers and students a lot of tiredness and it is time-consuming.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? The suggestion, I mean the important thing... I think the present course curriculum should be changed…The focus should be on the medical field… Currently, students are exposed to medical input in only one subject, which is medical terminology.

If you would like to comment or add anything you are very welcome. No, thank you very much.

Thank you very much for your time and participation.

APPENDIX E4: Sample of Course Administrators' Interviews

(Administrator 3)

What do the Ministry of Health or the HSCs want these students to be able to do in English while studying at the HSC and when they graduate? What is the main objective of the ESP course? As you know, English is the medium of instruction in Health Colleges and the language of communication in Saudi hospitals. Therefore, the objective is to improve their English to the desired level where they can understand their medical studies, and to prepare them to communicate effectively in their work.

Do you think that English is important to your students in their academic studies and target careers? Yes, because they cannot understand, read, write or speak in any medical situation without having good competence in English... I strongly believe that having a good command of English is one of the most important aspects of career development in any health profession.

How satisfied are you with the level of English of your graduates? The problem... I think, the lack of language practice... Our students here in the college, in fact, do not practice their English because they are afraid of making mistakes... Also, when they start their work in hospitals they face some problems. Generally speaking, their level is not satisfactory.

What do you perceive as the needs of your students, in their studies and target careers? Actually, I don't have a clear idea about their needs because they have not been identified... but I think they need basic English before they start the course because it is above their level. I mean they should have general English first and then study the ESP course. They also need communication skills in order to cope with their work requirements.

On what basis is the content of the curriculum determined? We are not involved in designing the curriculum. The General Directorate of Health Colleges in the Ministry of Health determines the course curriculum.

Do you think that students encounter any problems while learning English at the HSCs? As I told you before, our students still feel shy of practicing the language and this is related to the lack of competence, which is not built up correctly during the earlier stages.

How satisfied are you with your ESP teachers? What are the criteria against which their work is evaluated? I am satisfied to some extent. Regarding their evaluation, we make some visits to classrooms in order to evaluate teachers... We also sometimes ask two students from each class to assess their English language teachers' work.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? First, testing students before admission and giving remedial courses for all students in need... Teacher training is also very important. There is an urgent need for more well qualified teachers because we suffer from a shortage of teaching staff... Choosing

more integrated text books... Increasing the hours of English teaching per week because I think the time available now to learn English language in the HSCs is too little… Students need more time on learning English in order to reach a level where they can follow their academic studies.

Would you like to comment or add anything? You are very welcome. Thank you.

Thank you very much for your time and participation.

APPENDIX E5: Sample of English-speaking Health Assistants' Interviews

(Health Assistant 2)

Do you think English is important in your work? Well, we have to understand each other. Actually, the language spoken here is English, so English is very important.

How often do you use it and with whom? Here we talk only English... Sometimes we use Arabic with patients, but with staff we always use English.

Do you think English has a role in the quality of healthcare services in this hospital? If so, please give examples. It will affect it because this is teamwork, so we have to understand what they are taking, what they are prescribing. For example, drug labels prescribed by doctors should be clear and understood, otherwise it can cause very serious harm to the patient.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Of course, it must be. It is of great importance to have a good command of English, especially when we are dealing with co-workers of different nationalities... This is teamwork, and if a member lacks this command, it will not be successful. He might not help you to do the work successfully.

How satisfied are you with the level of English of the HSC graduates? They are OK, but we have to give them more time to pick up more... I mean they can understand English, but speaking... I think it is more difficult for them.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? Their speaking is not good – they speak simple English. Some of them struggle to speak, some understand what you are saying, and some don't. Their reading and writing are fair, but many use ungrammatical language... some don't know many medical words.

What exactly are the HSC graduates able and not able to do in terms of English? They can only read and speak simple English... yes, very simple. They need to learn English further because they are weak in speaking, grammar, medical terms, and also spelling.

Please describe the work situation in which you need to speak English with the HSC graduates. Sometimes here when I am assigned to a CT scan... and I have to teach the new Saudi radiographers, so I have to tell them everything in English, sometimes they can't understand when I refer to the parts of the body. It takes a little longer for them to understand what I am trying to say to them.

Do you think it is difficult communicating with them in English? Sometimes, yes, but they eventually understand what you say.

To what extent do you think the language skills (reading, listening, writing, speaking) are important to the HSC students' target careers? In our hospital, all of these are very important. However, in our department, I think reading and writing are the most important, because we deal with medical requests and reports... Also, listening is very important for understanding our doctors' dictation when we prepare medical reports.

Do you think they are prepared to use English to meet their work requirements? Not really, but I can say that they are progressing.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? They should teach them communication skills, particularly speaking, and how to use grammar and spelling. Students need to practice English before they come here. They have to understand the procedures of medical requests and reports.

Would you like to comment or add anything? You are very welcome. No thanks.

Thank you very much for your time and participation.

(Physician 2)

Do you think English is important in your work? It is our medium of communication. Everyone working in this hospital speaks English. Our work relies heavily on open and honest communication, so it is hugely important.

How often do you use it and with whom? It is the 100% mode of communication between the doctors and the staff of all nationalities.

Do you think English has a role in the quality of healthcare services in this hospital? If so, please give examples. Yes, because ineffective communication in English, either poorly verbalised or poorly interpreted, can put the patient in danger. Therefore, effective communication in English overall is important in the provision of healthcare. Mostly, the instructions for drug administration routes, as well as other orders to be carried out on patients, are written in English. Misunderstanding these orders or not understanding the orders in English can endanger the life of the patient.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, 100%. It is very beneficial for the patients... for the staff and everybody around us… We should use English as the mode of teaching, mode of learning and mode of communication.

How satisfied are you with the level of English of the HSC graduates? They are improving. Definitely, they have improved.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? The way they speak is not perfect, but it is generally understood. They do not write much... reading and listening are OK, but they do not have enough vocabulary for good communication, particularly medical terminology.

What exactly are the HSC graduates able and not able to do in terms of English? Their English is reasonable for the work here, but I think if they take on more responsibilities, their current level is not good enough.

Please describe the work situation in which you need to speak English with the HSC graduates. I often ask one of my team to take a patient's blood for testing. Sometimes, I need them to translate my questions, so that the patient understands them.

Do you think it is difficult communicating with them in English? No, I don't usually have problems... because I try in easy English; otherwise I bring somebody who can translate.

To what extent do you think the language skills (reading, listening, writing, speaking) are important to the HSC graduates' careers? In the medical profession, all English skills are equally very important, because an inability to understand procedures, read requests, give orders and so on will cause problems. One must have

a very good level, at least, in these skills. However, I think that a high level of English is needed if the case is more complicated.

To what extent do you think that their level of English prepares them for their work requirements? I am not sure... I think most of them don't have good enough conversational English skills. They should enrol in English courses.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? Undoubtedly, they need to be trained in doctor-nurse communication skills... There should be an emphasis on fluency in speaking. Graduates should also be familiar with the different types of hospital forms.

Would you like to comment or add anything? You are very welcome. Thank you.

Thank you very much for your time and participation.

<u>**APPENDIX E7: Sample of Hospital Managers' Interviews**</u>

(Hospital Manager 3)

Do you think English is important in your hospital? Definitely. In our hospital, we have multinational workers... They communicate with each other in English... Medical reports are mostly written in English. Also, most items of medical terminology are only known in English.

Do you think it has an effect on the quality of healthcare services you provide in this hospital? If so, please give examples. It does very much in a way, because in the medical field most of the data are kept in English, and we work as a team, so poor English will badly affect the management of patients' health.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes. It is very necessary.

How satisfied are you with level of English of the HSC graduates? Frankly, I am not satisfied... They are below my expectations.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? I cannot tell you exactly how they are in these aspects, but as I said, their overall level is very low.

What exactly are the HSC graduates able and not able to do in terms of English? Actually, I don't know.

Do your foreign employees who speak English express dissatisfaction because of their limited English proficiency? Yes, many times.

To what extent do you think the language skills are important to the HSC students' target careers? It is difficult to give a clear-cut answer, because the level of importance of each skill often varies from one health profession to another, but in general I can say that the four skills are all very important… They have to read departmental memos, medical reports and requests and understand what is required from them… They also have to communicate effectively with their colleagues and discuss work-related issues.

Do you think that the ESP course they took prepared them well for their work requirements? Unfortunately, no. Sometimes, we ask them to attend English courses in order to improve their language skills.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? I think the HSCs need to teach them how to speak, listen, read and write properly... particularly in health-related topics.

Would you like to comment or add anything? You are very welcome. Good luck.

(Student 4)

Do you think English is important in your academic studies and target career? Yes, sure.

To what extent do you think the four main skills are important to your target career? I think speaking is very important... or let's say the most important. Listening is also very important because I should understand what the doctor is saying. Reading and writing skills are important.

To what extent do you think the four main skills are important to your academic studies in this college? I think reading is very important because in my subject areas I should read very much to get the required knowledge from our textbooks and the teachers' handouts... Regarding listening, to some extent, listening is important because I need to understand what our subject teachers are saying in lectures... For writing, it is important, especially during examinations, as my subject teachers ask me to write short paragraphs about some medical topics... I would like to speak English but our subject teachers do not let us speak too much and this is why I think it is unimportant.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, certainly, one should be fluent in oral and written English if one is going to be a medical professional.

How well do you think the current ESP course meets both your academic study and target career needs? Not much, because I still lack important language skills, like speaking.

Could you tell me what you like and do not like about the current ESP course? I don't like the assessment scheme. The course assessment scheme creates the idea that I should get as many marks as I can regardless of how much language I actually learn... I like Medical Terminology textbooks.

How helpful is the current ESP course in improving the following:

Your level of English? It is helpful, but not very.
Your language skills (reading, listening, writing, speaking), grammar, vocabulary (general, medical)? The course was somewhat helpful in improving my listening, writing, reading and grammar... but not helpful enough in speaking. It is really very helpful in improving my vocabulary, particularly medical vocabulary.

Have you encountered any problems or difficulties while learning English at the HSC? If yes, could you tell me about them? Yes, I have some problems. Firstly, the method of explaining and clarifying the lessons is not good at all... some textbooks are good but the teachers do not explain the important points clearly... They also do not make the lessons very interesting. Also, some Arabic-speaking teachers use Arabic in the classroom.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs?
More time is needed, as the course is too short. In addition, technology should be used in teaching our courses... Textbooks should include medical topics and the current assessment scheme should be changed**.**

If you would like to add anything you are very welcome. Thanks.

Thank you very much for your time and participation.

(Graduate 3)

According to your working experience, do you think English is important in your current career? English is very important in our work here... It is more important than Arabic.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, you know English now is the language of medicine... Actually, you have to be a good speaker and writer of English in order to understand your work and to carry out your duties.

How often do you use English in your career? 100%, I mean we always use English in our career.

To what extent do you think the four main skills are important to your current career? Basically, they are all very important. However, I think speaking and listening skills are slightly more important than reading and writing skills. I always need to speak to my English-speaking colleagues and patients about medical issues. I also have to listen to my doctors' instructions. For reading, I often need to read departmental memos, patients' files and other work-related documents such as X-ray requests and report forms.

Have you encountered problems while using English at your workplace? If yes, could you tell me about them? Not all the time. I have problems sometimes, like misspelling. I have problems spelling some words when I fill out requests for CT reports, but I can still understand.

To what extent do you think the four main skills were important to your academic studies, when you were studying at the HSC? During that time, our academic studies required us to read a lot to get information from textbooks and other references, so reading was very important. Also, writing was very important because we were always asked to write in mid-term and final examinations. As for listening, it was fairly important. Speaking was important, since we sometimes asked our lecturers for clarification.

How helpful was the ESP course in improving the following:
Your level of English? In fact, it improved my English language to some extent. However, it was not very helpful.
Your language skills (reading, listening, writing, speaking), grammar, vocabulary (general, medical)? I feel that the course was useful, especially in writing and listening… It was less useful in reading, speaking, grammar and vocabulary.

How well do you think the ESP course at the HSC met both your academic study and target career needs? That course was not effective in meeting my academic and work needs.

Did you encounter any problems or difficulties while you were learning English at the HSC? If so, could you tell me about them? Yes, there were some problems.

The teaching members of staff were non-native speakers of English… Some did not speak fluently… they often mispronounced English words. Also, the textbooks were much harder than our English language level when we started studying them... There was a big gap between our level and the textbooks.

Could you tell me what you like and do not like about the ESP course? The time allocated to the course is too short… they should increase the contact hours of listening, reading and writing… The timetable is not well-organized. I liked writing and listening classes.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? I think they should concentrate on the English needed for medical studies and professions, not only general topics. Also, I suggest that they increase the number of hours in the course.

If you would like to comment or add anything you are very welcome. No.

Thank you very much for your time and participation.

(Teacher 1)

How many years have you been a teacher at this college? Nine years, I think.

Have you ever attended a teacher training course, in either general or medical English? Regarding general English, I have done my master's degree, but I haven't taken any special course for teaching ESP or medical English. In fact, as ESP teachers, we need such training. It is definitely necessary.

Do you think that English is important to your students in their academic study and target careers? English is very important, particularly when they are dealing with medical sciences… I mean English is necessary when they start their learning… If they don't learn properly, how can they learn without English?… There are many books only in English which are not available in any other languages, so they need to know English. This is a basic thing in order to get their knowledge about medical science, whatever. Another thing... you know here in Saudi Arabia people come from different countries… at the same time, doctors are working over there in their hospitals where they are going to join too. This means that they have to talk with them in English… If they do not understand English, how could they do their work?

What do you want your students to be able to do with English? It varies... I mean if the students study a lot... Reading, particularly... that gives them vocabulary, lets them know grammar and other things, it increases their thinking capabilities so that they can do better if they read at their home also. Then they will be able to comprehend medical texts in their references.

What do you perceive as the needs of your students for their academic studies and target careers? The basic thing is motivation... Motivation is a must in order to learn English... They should know why they want to learn English and that will motivate them. For their academic studies and target careers, they should at least learn enough English so that they can understand their books and explain whatever they have understood.

What do you need to satisfy your students' needs? The thing is that we need a suitable syllabus, a lab... I mean a proper big lab, although we have a lab.

How helpful is the current ESP course in improving their overall level of English, language skills, grammar and vocabulary (general, medical)? The majority of our students achieved a reasonable level of improvement, particularly in writing... but it is unsatisfactory... I mean, of course it helps, but because the course is above their level we don't get the results we want. The ultimate result which we want is not there, because there is a difference between their level and the books they are studying.

To what extent do you think the four main skills are important in your students' academic studies? We cannot ignore the importance of English skills for the students' academic studies, because they need each skill to perform a certain task... Of course, they all are important. In my opinion, reading is the most necessary skill in their studies. It is very important… Listening and writing are important… Speaking is

not very important... Reading is a major source of academic knowledge and it can help students in their academic learning… They also need it to understand questions in exams.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes. They should understand their books here in the college, and apart from that when they go to their workplace... hospitals, there they can write short messages, they can talk with their colleagues, they can understand what the doctors are saying... These types of things.

To what extent do you think the four main skills are important in your students' target careers? The thing is that all four skills are important and necessary, but there may be variations, as I think ... they need speaking very much. So, speaking and listening are the most important skills, writing is third, because they are sometimes required to write medical reports in English, and reading is last.

Could you tell me what you like and do not like about the current ESP course? The thing is that the books don't match the level of our students. We need a course prepared by the ministry itself, suited to the students of HSCs.

Do you encounter any problems while teaching English at the HSCs? What about your students, do you think they encounter any problems in learning English? No, I don't have any problems, but the level of the students when they come from their schools, when they join the college... they do not understand anything... At that time I face difficulty in order to explain things... Most of the topics in the listening and speaking textbook are based on western culture, which is difficult for our students to understand. Also, we have two quizzes and two monthly tests in each semester… This is too taxing… I mean, it causes both teachers and students a lot of tiredness and it is time-consuming.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? The suggestion, I mean the important thing... I think the present course curriculum should be changed…The focus should be on the medical field… Currently, students are exposed to medical input in only one subject, which is medical terminology.

If you would like to comment or add anything you are very welcome. No, thank you very much.

Thank you very much for your time and participation.

(Administrator 3)

What do the Ministry of Health or the HSCs want these students to be able to do in English while studying at the HSC and when they graduate? What is the main objective of the ESP course? As you know, English is the medium of instruction in Health Colleges and the language of communication in Saudi hospitals. Therefore, the objective is to improve their English to the desired level where they can understand their medical studies, and to prepare them to communicate effectively in their work.

Do you think that English is important to your students in their academic studies and target careers? Yes, because they cannot understand, read, write or speak in any medical situation without having good competence in English... I strongly believe that having a good command of English is one of the most important aspects of career development in any health profession.

How satisfied are you with the level of English of your graduates? The problem... I think, the lack of language practice... Our students here in the college, in fact, do not practice their English because they are afraid of making mistakes... Also, when they start their work in hospitals they face some problems. Generally speaking, their level is not satisfactory.

What do you perceive as the needs of your students, in their studies and target careers? Actually, I don't have a clear idea about their needs because they have not been identified... but I think they need basic English before they start the course because it is above their level. I mean they should have general English first and then study the ESP course. They also need communication skills in order to cope with their work requirements.

On what basis is the content of the curriculum determined? We are not involved in designing the curriculum. The General Directorate of Health Colleges in the Ministry of Health determines the course curriculum.

Do you think that students encounter any problems while learning English at the HSCs? As I told you before, our students still feel shy of practicing the language and this is related to the lack of competence, which is not built up correctly during the earlier stages.

How satisfied are you with your ESP teachers? What are the criteria against which their work is evaluated? I am satisfied to some extent. Regarding their evaluation, we make some visits to classrooms in order to evaluate teachers... We also sometimes ask two students from each class to assess their English language teachers' work.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? First, testing students before admission and giving remedial courses for all students in need... Teacher training is also very important. There is an urgent need for more well qualified teachers because we suffer from a shortage of teaching staff... Choosing

more integrated text books... Increasing the hours of English teaching per week because I think the time available now to learn English language in the HSCs is too little… Students need more time on learning English in order to reach a level where they can follow their academic studies.

Would you like to comment or add anything? You are very welcome. Thank you.

Thank you very much for your time and participation.

(Health Assistant 2)

Do you think English is important in your work? Well, we have to understand each other. Actually, the language spoken here is English, so English is very important.

How often do you use it and with whom? Here we talk only English... Sometimes we use Arabic with patients, but with staff we always use English.

Do you think English has a role in the quality of healthcare services in this hospital? If so, please give examples. It will affect it because this is teamwork, so we have to understand what they are taking, what they are prescribing. For example, drug labels prescribed by doctors should be clear and understood, otherwise it can cause very serious harm to the patient.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Of course, it must be. It is of great importance to have a good command of English, especially when we are dealing with co-workers of different nationalities... This is teamwork, and if a member lacks this command, it will not be successful. He might not help you to do the work successfully.

How satisfied are you with the level of English of the HSC graduates? They are OK, but we have to give them more time to pick up more... I mean they can understand English, but speaking... I think it is more difficult for them.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? Their speaking is not good – they speak simple English. Some of them struggle to speak, some understand what you are saying, and some don't. Their reading and writing are fair, but many use ungrammatical language... some don't know many medical words.

What exactly are the HSC graduates able and not able to do in terms of English? They can only read and speak simple English... yes, very simple. They need to learn English further because they are weak in speaking, grammar, medical terms, and also spelling.

Please describe the work situation in which you need to speak English with the HSC graduates. Sometimes here when I am assigned to a CT scan... and I have to teach the new Saudi radiographers, so I have to tell them everything in English, sometimes they can't understand when I refer to the parts of the body. It takes a little longer for them to understand what I am trying to say to them.

Do you think it is difficult communicating with them in English? Sometimes, yes, but they eventually understand what you say.

To what extent do you think the language skills (reading, listening, writing, speaking) are important to the HSC students' target careers? In our hospital, all of these are very important. However, in our department, I think reading and writing are the most important, because we deal with medical requests and reports... Also, listening is very important for understanding our doctors' dictation when we prepare medical reports.

Do you think they are prepared to use English to meet their work requirements? Not really, but I can say that they are progressing.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? They should teach them communication skills, particularly speaking, and how to use grammar and spelling. Students need to practice English before they come here. They have to understand the procedures of medical requests and reports.

Would you like to comment or add anything? You are very welcome. No thanks.

Thank you very much for your time and participation.

APPENDIX E6: Sample of English-speaking Physicians' Interviews

(Physician 2)

Do you think English is important in your work? It is our medium of communication. Everyone working in this hospital speaks English. Our work relies heavily on open and honest communication, so it is hugely important.

How often do you use it and with whom? It is the 100% mode of communication between the doctors and the staff of all nationalities.

Do you think English has a role in the quality of healthcare services in this hospital? If so, please give examples. Yes, because ineffective communication in English, either poorly verbalised or poorly interpreted, can put the patient in danger. Therefore, effective communication in English overall is important in the provision of healthcare. Mostly, the instructions for drug administration routes, as well as other orders to be carried out on patients, are written in English. Misunderstanding these orders or not understanding the orders in English can endanger the life of the patient.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, 100%. It is very beneficial for the patients... for the staff and everybody around us… We should use English as the mode of teaching, mode of learning and mode of communication.

How satisfied are you with the level of English of the HSC graduates? They are improving. Definitely, they have improved.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? The way they speak is not perfect, but it is generally understood. They do not write much... reading and listening are OK, but they do not have enough vocabulary for good communication, particularly medical terminology.

What exactly are the HSC graduates able and not able to do in terms of English? Their English is reasonable for the work here, but I think if they take on more responsibilities, their current level is not good enough.

Please describe the work situation in which you need to speak English with the HSC graduates. I often ask one of my team to take a patient's blood for testing. Sometimes, I need them to translate my questions, so that the patient understands them.

Do you think it is difficult communicating with them in English? No, I don't usually have problems... because I try in easy English; otherwise I bring somebody who can translate.

To what extent do you think the language skills (reading, listening, writing, speaking) are important to the HSC graduates' careers? In the medical profession, all English skills are equally very important, because an inability to understand procedures, read requests, give orders and so on will cause problems. One must have

a very good level, at least, in these skills. However, I think that a high level of English is needed if the case is more complicated.

To what extent do you think that their level of English prepares them for their work requirements? I am not sure... I think most of them don't have good enough conversational English skills. They should enrol in English courses.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? Undoubtedly, they need to be trained in doctor-nurse communication skills... There should be an emphasis on fluency in speaking. Graduates should also be familiar with the different types of hospital forms.

Would you like to comment or add anything? You are very welcome. Thank you.

Thank you very much for your time and participation.

(Hospital Manager 3)

Do you think English is important in your hospital? Definitely. In our hospital, we have multinational workers... They communicate with each other in English... Medical reports are mostly written in English. Also, most items of medical terminology are only known in English.

Do you think it has an effect on the quality of healthcare services you provide in this hospital? If so, please give examples. It does very much in a way, because in the medical field most of the data are kept in English, and we work as a team, so poor English will badly affect the management of patients' health.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes. It is very necessary.

How satisfied are you with level of English of the HSC graduates? Frankly, I am not satisfied... They are below my expectations.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? I cannot tell you exactly how they are in these aspects, but as I said, their overall level is very low.

What exactly are the HSC graduates able and not able to do in terms of English? Actually, I don't know.

Do your foreign employees who speak English express dissatisfaction because of their limited English proficiency? Yes, many times.

To what extent do you think the language skills are important to the HSC students' target careers? It is difficult to give a clear-cut answer, because the level of importance of each skill often varies from one health profession to another, but in general I can say that the four skills are all very important… They have to read departmental memos, medical reports and requests and understand what is required from them… They also have to communicate effectively with their colleagues and discuss work-related issues.

Do you think that the ESP course they took prepared them well for their work requirements? Unfortunately, no. Sometimes, we ask them to attend English courses in order to improve their language skills.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? I think the HSCs need to teach them how to speak, listen, read and write properly... particularly in health-related topics.

Would you like to comment or add anything? You are very welcome. Good luck.

(Student 4)

Do you think English is important in your academic studies and target career? Yes, sure.

To what extent do you think the four main skills are important to your target career? I think speaking is very important... or let's say the most important. Listening is also very important because I should understand what the doctor is saying. Reading and writing skills are important.

To what extent do you think the four main skills are important to your academic studies in this college? I think reading is very important because in my subject areas I should read very much to get the required knowledge from our textbooks and the teachers' handouts... Regarding listening, to some extent, listening is important because I need to understand what our subject teachers are saying in lectures… For writing, it is important, especially during examinations, as my subject teachers ask me to write short paragraphs about some medical topics… I would like to speak English but our subject teachers do not let us speak too much and this is why I think it is unimportant.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, certainly, one should be fluent in oral and written English if one is going to be a medical professional.

How well do you think the current ESP course meets both your academic study and target career needs? Not much, because I still lack important language skills, like speaking.

Could you tell me what you like and do not like about the current ESP course? I don't like the assessment scheme. The course assessment scheme creates the idea that I should get as many marks as I can regardless of how much language I actually learn… I like Medical Terminology textbooks.

How helpful is the current ESP course in improving the following:

Your level of English? It is helpful, but not very.
Your language skills (reading, listening, writing, speaking), grammar, vocabulary (general, medical)? The course was somewhat helpful in improving my listening, writing, reading and grammar… but not helpful enough in speaking. It is really very helpful in improving my vocabulary, particularly medical vocabulary.

Have you encountered any problems or difficulties while learning English at the HSC? If yes, could you tell me about them? Yes, I have some problems. Firstly, the method of explaining and clarifying the lessons is not good at all… some textbooks are good but the teachers do not explain the important points clearly… They also do not make the lessons very interesting. Also, some Arabic-speaking teachers use Arabic in the classroom.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? More time is needed, as the course is too short. In addition, technology should be used in teaching our courses... Textbooks should include medical topics and the current assessment scheme should be changed**.**

If you would like to add anything you are very welcome. Thanks.

Thank you very much for your time and participation.

(Graduate 3)

According to your working experience, do you think English is important in your current career? English is very important in our work here... It is more important than Arabic.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, you know English now is the language of medicine... Actually, you have to be a good speaker and writer of English in order to understand your work and to carry out your duties.

How often do you use English in your career? 100%, I mean we always use English in our career.

To what extent do you think the four main skills are important to your current career? Basically, they are all very important. However, I think speaking and listening skills are slightly more important than reading and writing skills. I always need to speak to my English-speaking colleagues and patients about medical issues. I also have to listen to my doctors' instructions. For reading, I often need to read departmental memos, patients' files and other work-related documents such as X-ray requests and report forms.

Have you encountered problems while using English at your workplace? If yes, could you tell me about them? Not all the time. I have problems sometimes, like misspelling. I have problems spelling some words when I fill out requests for CT reports, but I can still understand.

To what extent do you think the four main skills were important to your academic studies, when you were studying at the HSC? During that time, our academic studies required us to read a lot to get information from textbooks and other references, so reading was very important. Also, writing was very important because we were always asked to write in mid-term and final examinations. As for listening, it was fairly important. Speaking was important, since we sometimes asked our lecturers for clarification.

How helpful was the ESP course in improving the following:
Your level of English? In fact, it improved my English language to some extent. However, it was not very helpful.
Your language skills (reading, listening, writing, speaking), grammar, vocabulary (general, medical)? I feel that the course was useful, especially in writing and listening... It was less useful in reading, speaking, grammar and vocabulary.

How well do you think the ESP course at the HSC met both your academic study and target career needs? That course was not effective in meeting my academic and work needs.

Did you encounter any problems or difficulties while you were learning English at the HSC? If so, could you tell me about them? Yes, there were some problems.

307

The teaching members of staff were non-native speakers of English… Some did not speak fluently… they often mispronounced English words. Also, the textbooks were much harder than our English language level when we started studying them... There was a big gap between our level and the textbooks.

Could you tell me what you like and do not like about the ESP course? The time allocated to the course is too short… they should increase the contact hours of listening, reading and writing… The timetable is not well-organized. I liked writing and listening classes.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? I think they should concentrate on the English needed for medical studies and professions, not only general topics. Also, I suggest that they increase the number of hours in the course.

If you would like to comment or add anything you are very welcome. No.

Thank you very much for your time and participation.

APPENDIX E3: Sample of ESP Teachers' Interviews

(Teacher 1)

How many years have you been a teacher at this college? Nine years, I think.

Have you ever attended a teacher training course, in either general or medical English? Regarding general English, I have done my master's degree, but I haven't taken any special course for teaching ESP or medical English. In fact, as ESP teachers, we need such training. It is definitely necessary.

Do you think that English is important to your students in their academic study and target careers? English is very important, particularly when they are dealing with medical sciences… I mean English is necessary when they start their learning… If they don't learn properly, how can they learn without English?… There are many books only in English which are not available in any other languages, so they need to know English. This is a basic thing in order to get their knowledge about medical science, whatever. Another thing... you know here in Saudi Arabia people come from different countries… at the same time, doctors are working over there in their hospitals where they are going to join too. This means that they have to talk with them in English… If they do not understand English, how could they do their work?

What do you want your students to be able to do with English? It varies... I mean if the students study a lot... Reading, particularly... that gives them vocabulary, lets them know grammar and other things, it increases their thinking capabilities so that they can do better if they read at their home also. Then they will be able to comprehend medical texts in their references.

What do you perceive as the needs of your students for their academic studies and target careers? The basic thing is motivation... Motivation is a must in order to learn English... They should know why they want to learn English and that will motivate them. For their academic studies and target careers, they should at least learn enough English so that they can understand their books and explain whatever they have understood.

What do you need to satisfy your students' needs? The thing is that we need a suitable syllabus, a lab... I mean a proper big lab, although we have a lab.

How helpful is the current ESP course in improving their overall level of English, language skills, grammar and vocabulary (general, medical)? The majority of our students achieved a reasonable level of improvement, particularly in writing... but it is unsatisfactory... I mean, of course it helps, but because the course is above their level we don't get the results we want. The ultimate result which we want is not there, because there is a difference between their level and the books they are studying.

To what extent do you think the four main skills are important in your students' academic studies? We cannot ignore the importance of English skills for the students' academic studies, because they need each skill to perform a certain task... Of course, they all are important. In my opinion, reading is the most necessary skill in their studies. It is very important… Listening and writing are important… Speaking is

not very important... Reading is a major source of academic knowledge and it can help students in their academic learning… They also need it to understand questions in exams.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes. They should understand their books here in the college, and apart from that when they go to their workplace... hospitals, there they can write short messages, they can talk with their colleagues, they can understand what the doctors are saying... These types of things.

To what extent do you think the four main skills are important in your students' target careers? The thing is that all four skills are important and necessary, but there may be variations, as I think ... they need speaking very much. So, speaking and listening are the most important skills, writing is third, because they are sometimes required to write medical reports in English, and reading is last.

Could you tell me what you like and do not like about the current ESP course? The thing is that the books don't match the level of our students. We need a course prepared by the ministry itself, suited to the students of HSCs.

Do you encounter any problems while teaching English at the HSCs? What about your students, do you think they encounter any problems in learning English? No, I don't have any problems, but the level of the students when they come from their schools, when they join the college... they do not understand anything... At that time I face difficulty in order to explain things... Most of the topics in the listening and speaking textbook are based on western culture, which is difficult for our students to understand. Also, we have two quizzes and two monthly tests in each semester… This is too taxing… I mean, it causes both teachers and students a lot of tiredness and it is time-consuming.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? The suggestion, I mean the important thing... I think the present course curriculum should be changed…The focus should be on the medical field… Currently, students are exposed to medical input in only one subject, which is medical terminology.

If you would like to comment or add anything you are very welcome. No, thank you very much.

Thank you very much for your time and participation.

(Administrator 3)

What do the Ministry of Health or the HSCs want these students to be able to do in English while studying at the HSC and when they graduate? What is the main objective of the ESP course? As you know, English is the medium of instruction in Health Colleges and the language of communication in Saudi hospitals. Therefore, the objective is to improve their English to the desired level where they can understand their medical studies, and to prepare them to communicate effectively in their work.

Do you think that English is important to your students in their academic studies and target careers? Yes, because they cannot understand, read, write or speak in any medical situation without having good competence in English... I strongly believe that having a good command of English is one of the most important aspects of career development in any health profession.

How satisfied are you with the level of English of your graduates? The problem... I think, the lack of language practice... Our students here in the college, in fact, do not practice their English because they are afraid of making mistakes... Also, when they start their work in hospitals they face some problems. Generally speaking, their level is not satisfactory.

What do you perceive as the needs of your students, in their studies and target careers? Actually, I don't have a clear idea about their needs because they have not been identified... but I think they need basic English before they start the course because it is above their level. I mean they should have general English first and then study the ESP course. They also need communication skills in order to cope with their work requirements.

On what basis is the content of the curriculum determined? We are not involved in designing the curriculum. The General Directorate of Health Colleges in the Ministry of Health determines the course curriculum.

Do you think that students encounter any problems while learning English at the HSCs? As I told you before, our students still feel shy of practicing the language and this is related to the lack of competence, which is not built up correctly during the earlier stages.

How satisfied are you with your ESP teachers? What are the criteria against which their work is evaluated? I am satisfied to some extent. Regarding their evaluation, we make some visits to classrooms in order to evaluate teachers... We also sometimes ask two students from each class to assess their English language teachers' work.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? First, testing students before admission and giving remedial courses for all students in need... Teacher training is also very important. There is an urgent need for more well qualified teachers because we suffer from a shortage of teaching staff... Choosing

more integrated text books... Increasing the hours of English teaching per week because I think the time available now to learn English language in the HSCs is too little… Students need more time on learning English in order to reach a level where they can follow their academic studies.

Would you like to comment or add anything? You are very welcome. Thank you.

Thank you very much for your time and participation.

APPENDIX E5: Sample of English-speaking Health Assistants' Interviews

(Health Assistant 2)

Do you think English is important in your work? Well, we have to understand each other. Actually, the language spoken here is English, so English is very important.

How often do you use it and with whom? Here we talk only English... Sometimes we use Arabic with patients, but with staff we always use English.

Do you think English has a role in the quality of healthcare services in this hospital? If so, please give examples. It will affect it because this is teamwork, so we have to understand what they are taking, what they are prescribing. For example, drug labels prescribed by doctors should be clear and understood, otherwise it can cause very serious harm to the patient.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Of course, it must be. It is of great importance to have a good command of English, especially when we are dealing with co-workers of different nationalities... This is teamwork, and if a member lacks this command, it will not be successful. He might not help you to do the work successfully.

How satisfied are you with the level of English of the HSC graduates? They are OK, but we have to give them more time to pick up more... I mean they can understand English, but speaking... I think it is more difficult for them.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? Their speaking is not good – they speak simple English. Some of them struggle to speak, some understand what you are saying, and some don't. Their reading and writing are fair, but many use ungrammatical language... some don't know many medical words.

What exactly are the HSC graduates able and not able to do in terms of English? They can only read and speak simple English... yes, very simple. They need to learn English further because they are weak in speaking, grammar, medical terms, and also spelling.

Please describe the work situation in which you need to speak English with the HSC graduates. Sometimes here when I am assigned to a CT scan... and I have to teach the new Saudi radiographers, so I have to tell them everything in English, sometimes they can't understand when I refer to the parts of the body. It takes a little longer for them to understand what I am trying to say to them.

Do you think it is difficult communicating with them in English? Sometimes, yes, but they eventually understand what you say.

To what extent do you think the language skills (reading, listening, writing, speaking) are important to the HSC students' target careers? In our hospital, all of these are very important. However, in our department, I think reading and writing are the most important, because we deal with medical requests and reports... Also, listening is very important for understanding our doctors' dictation when we prepare medical reports.

Do you think they are prepared to use English to meet their work requirements? Not really, but I can say that they are progressing.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? They should teach them communication skills, particularly speaking, and how to use grammar and spelling. Students need to practice English before they come here. They have to understand the procedures of medical requests and reports.

Would you like to comment or add anything? You are very welcome. No thanks.

Thank you very much for your time and participation.

(Physician 2)

Do you think English is important in your work? It is our medium of communication. Everyone working in this hospital speaks English. Our work relies heavily on open and honest communication, so it is hugely important.

How often do you use it and with whom? It is the 100% mode of communication between the doctors and the staff of all nationalities.

Do you think English has a role in the quality of healthcare services in this hospital? If so, please give examples. Yes, because ineffective communication in English, either poorly verbalised or poorly interpreted, can put the patient in danger. Therefore, effective communication in English overall is important in the provision of healthcare. Mostly, the instructions for drug administration routes, as well as other orders to be carried out on patients, are written in English. Misunderstanding these orders or not understanding the orders in English can endanger the life of the patient.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, 100%. It is very beneficial for the patients... for the staff and everybody around us… We should use English as the mode of teaching, mode of learning and mode of communication.

How satisfied are you with the level of English of the HSC graduates? They are improving. Definitely, they have improved.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? The way they speak is not perfect, but it is generally understood. They do not write much... reading and listening are OK, but they do not have enough vocabulary for good communication, particularly medical terminology.

What exactly are the HSC graduates able and not able to do in terms of English? Their English is reasonable for the work here, but I think if they take on more responsibilities, their current level is not good enough.

Please describe the work situation in which you need to speak English with the HSC graduates. I often ask one of my team to take a patient's blood for testing. Sometimes, I need them to translate my questions, so that the patient understands them.

Do you think it is difficult communicating with them in English? No, I don't usually have problems... because I try in easy English; otherwise I bring somebody who can translate.

To what extent do you think the language skills (reading, listening, writing, speaking) are important to the HSC graduates' careers? In the medical profession, all English skills are equally very important, because an inability to understand procedures, read requests, give orders and so on will cause problems. One must have

a very good level, at least, in these skills. However, I think that a high level of English is needed if the case is more complicated.

To what extent do you think that their level of English prepares them for their work requirements? I am not sure... I think most of them don't have good enough conversational English skills. They should enrol in English courses.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? Undoubtedly, they need to be trained in doctor-nurse communication skills... There should be an emphasis on fluency in speaking. Graduates should also be familiar with the different types of hospital forms.

Would you like to comment or add anything? You are very welcome. Thank you.

Thank you very much for your time and participation.

(Hospital Manager 3)

Do you think English is important in your hospital? Definitely. In our hospital, we have multinational workers... They communicate with each other in English... Medical reports are mostly written in English. Also, most items of medical terminology are only known in English.

Do you think it has an effect on the quality of healthcare services you provide in this hospital? If so, please give examples. It does very much in a way, because in the medical field most of the data are kept in English, and we work as a team, so poor English will badly affect the management of patients' health.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes. It is very necessary.

How satisfied are you with level of English of the HSC graduates? Frankly, I am not satisfied... They are below my expectations.

How do you see their language skills (reading, listening, writing, speaking), their grammar and vocabulary (general, medical)? I cannot tell you exactly how they are in these aspects, but as I said, their overall level is very low.

What exactly are the HSC graduates able and not able to do in terms of English? Actually, I don't know.

Do your foreign employees who speak English express dissatisfaction because of their limited English proficiency? Yes, many times.

To what extent do you think the language skills are important to the HSC students' target careers? It is difficult to give a clear-cut answer, because the level of importance of each skill often varies from one health profession to another, but in general I can say that the four skills are all very important… They have to read departmental memos, medical reports and requests and understand what is required from them… They also have to communicate effectively with their colleagues and discuss work-related issues.

Do you think that the ESP course they took prepared them well for their work requirements? Unfortunately, no. Sometimes, we ask them to attend English courses in order to improve their language skills.

What can the HSCs do to prepare the graduates better for the kind of English required for their work? I think the HSCs need to teach them how to speak, listen, read and write properly... particularly in health-related topics.

Would you like to comment or add anything? You are very welcome. Good luck.

APPENDIX E1: Sample of Students' Interviews

(Student 4)

Do you think English is important in your academic studies and target career? Yes, sure.

To what extent do you think the four main skills are important to your target career? I think speaking is very important... or let's say the most important. Listening is also very important because I should understand what the doctor is saying. Reading and writing skills are important.

To what extent do you think the four main skills are important to your academic studies in this college? I think reading is very important because in my subject areas I should read very much to get the required knowledge from our textbooks and the teachers' handouts... Regarding listening, to some extent, listening is important because I need to understand what our subject teachers are saying in lectures… For writing, it is important, especially during examinations, as my subject teachers ask me to write short paragraphs about some medical topics… I would like to speak English but our subject teachers do not let us speak too much and this is why I think it is unimportant.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, certainly, one should be fluent in oral and written English if one is going to be a medical professional.

How well do you think the current ESP course meets both your academic study and target career needs? Not much, because I still lack important language skills, like speaking.

Could you tell me what you like and do not like about the current ESP course? I don't like the assessment scheme. The course assessment scheme creates the idea that I should get as many marks as I can regardless of how much language I actually learn… I like Medical Terminology textbooks.

How helpful is the current ESP course in improving the following:

Your level of English? It is helpful, but not very.
Your language skills (reading, listening, writing, speaking), grammar, vocabulary (general, medical)? The course was somewhat helpful in improving my listening, writing, reading and grammar… but not helpful enough in speaking. It is really very helpful in improving my vocabulary, particularly medical vocabulary.

Have you encountered any problems or difficulties while learning English at the HSC? If yes, could you tell me about them? Yes, I have some problems. Firstly, the method of explaining and clarifying the lessons is not good at all… some textbooks are good but the teachers do not explain the important points clearly… They also do not make the lessons very interesting. Also, some Arabic-speaking teachers use Arabic in the classroom.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? More time is needed, as the course is too short. In addition, technology should be used in teaching our courses... Textbooks should include medical topics and the current assessment scheme should be changed**.**

If you would like to add anything you are very welcome. Thanks.

Thank you very much for your time and participation.

(Graduate 3)

According to your working experience, do you think English is important in your current career? English is very important in our work here... It is more important than Arabic.

Do you think that it is necessary to have a fluent command of oral and written English to be a successful medical professional? Yes, you know English now is the language of medicine... Actually, you have to be a good speaker and writer of English in order to understand your work and to carry out your duties.

How often do you use English in your career? 100%, I mean we always use English in our career.

To what extent do you think the four main skills are important to your current career? Basically, they are all very important. However, I think speaking and listening skills are slightly more important than reading and writing skills. I always need to speak to my English-speaking colleagues and patients about medical issues. I also have to listen to my doctors' instructions. For reading, I often need to read departmental memos, patients' files and other work-related documents such as X-ray requests and report forms.

Have you encountered problems while using English at your workplace? If yes, could you tell me about them? Not all the time. I have problems sometimes, like misspelling. I have problems spelling some words when I fill out requests for CT reports, but I can still understand.

To what extent do you think the four main skills were important to your academic studies, when you were studying at the HSC? During that time, our academic studies required us to read a lot to get information from textbooks and other references, so reading was very important. Also, writing was very important because we were always asked to write in mid-term and final examinations. As for listening, it was fairly important. Speaking was important, since we sometimes asked our lecturers for clarification.

How helpful was the ESP course in improving the following:
Your level of English? In fact, it improved my English language to some extent. However, it was not very helpful.
Your language skills (reading, listening, writing, speaking), grammar, vocabulary (general, medical)? I feel that the course was useful, especially in writing and listening… It was less useful in reading, speaking, grammar and vocabulary.

How well do you think the ESP course at the HSC met both your academic study and target career needs? That course was not effective in meeting my academic and work needs.

Did you encounter any problems or difficulties while you were learning English at the HSC? If so, could you tell me about them? Yes, there were some problems.

The teaching members of staff were non-native speakers of English… Some did not speak fluently… they often mispronounced English words. Also, the textbooks were much harder than our English language level when we started studying them... There was a big gap between our level and the textbooks.

Could you tell me what you like and do not like about the ESP course? The time allocated to the course is too short… they should increase the contact hours of listening, reading and writing… The timetable is not well-organized. I liked writing and listening classes.

What suggestions would you like to make for the improvement of the ESP course at the HSCs in order to make it more effective and relevant to students' needs? I think they should concentrate on the English needed for medical studies and professions, not only general topics. Also, I suggest that they increase the number of hours in the course.

If you would like to comment or add anything you are very welcome. No.

Thank you very much for your time and participation.