

**EXPLORING ESP/MEDICAL BIOLOGY TEACHER
COLLABORATION, AND MEDICAL STUDENTS' AND
THEIR TEACHERS' PERCEPTIONS OF WRITING NEEDS IN
AN ARAB UNIVERSITY: A CASE STUDY**

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by

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Abstract

This study has explored: 1) the perceptions of medical students towards their writing needs (necessities, lacks, and wants) in writing, and also their perceptions towards syllabus, materials, activities, instruction and the effect of writing in English in the MB (Medical Biology) class; 2) differences of perceptions between Medics I and II; 3) the perceptions of ESP (English for Specific Purposes) and MB teachers regarding students' lacks in writing; 4) collaboration between the ESP teachers and the MB teachers; and 5) the challenges of collaboration. Mixed-method approach was adopted: 267 questionnaires were distributed to Medics I and Medics II students; 16 semi-structured interviews were conducted with students and 9 semi-structured interviews with ESP/MB teachers, coordinators, the Deputy Head of the English language centre and the Dean of Medicine in an Arab university. Findings showed that medical students' perceptions of their writing 'wants' were writing practice, reading for different schemata, and grammar practice. Their 'lacks' in writing are mainly vocabulary, spelling accuracy and applying grammatical rules in writing. Some students thought they need more guidance, interactive writing activities and innovative general/medical materials. There were no significant differences between Medics I and Medics II students except that Medics II students benefitted more from the writing component. ESP and MB teachers' perceptions regarding the writing needs of the students differed. The data showed similarities regarding the students' and ESP/MB participants' perceptions of 'lacks' such as insufficient reading, paragraph writing and grammar practice. ESP participants believed their students to have more practice in writing while MB participants emphasized content, writing for professional purposes and comprehension of exam questions. Regarding collaboration, the ESP and MB participants showed inclinations to cooperate. However, they had different views on teaching content, the status of the ESP teacher, the use of LI, administrative issues, unclear goals and interpersonal issues.

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Abbreviations

CALL- Computer assisted language learning

CBI- Content Based instruction

EAL – English as an additional language

EAP- English for academic purposes

EFL - English as a foreign language

EIL- English as an international language

ELC- English Language Centre

ESL- English as a second language

ESP- English for specific purposes

EOP - English for occupational purposes

EGP - English for general purposes

IGSCE- International General Certificate of Secondary Education

L1- First Language

L2- Second Language

MB-Medical Biology

Medics I- First year Medicine

Medics II- Second year Medicine

Medics I English- English taught in the first year of Medicine

Medics II English- English taught in the second year of Medicine

Medics I writing- the writing component of Medics I English

Medics II writing- the writing component of Medics II English

UAE-United Arab Emirates

TEFL-Teaching English as a Foreign Language

TESOL-Teaching English as a Second language

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Dedication

To my late father who taught me optimism and the love of education

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To my dear husband who taught me the meaning of sacrifice

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This thesis is for you all

1 INTRODUCTION AND BACKGROUND

1.1 Introduction

This chapter consists of 11 sections: introduction, statement of the problem, rationale, significance of the problem, research questions, the Saudi context, the educational system in Saudi Arabia, the role of English in Saudi Arabia, the Arab learner and writing, medical students and writing, and the organisation of the study.

1.2 Statement of the problem

At the tertiary level, writing is a prime need for Saudi medical students to help them write in their content subjects: Physics, Chemistry and specifically Medical Biology (MB). Writing has always been described as a complex skill (Kroll, 1990; Hyland, 2003) in comparison to other skills such as reading, listening and speaking. Writing involves a number of features: organisation in the development of ideas and information; accuracy; the use of grammatical devices; the selection of vocabulary; and sentence structures to create a style which is applicable to the subject matter and the audience (Hedge, 2001). The complexity of writing is increased for students who have to write in L2 and for academic purposes (Khuwaileh and Al-Shoumali, 2000; Hedge, 2001). Writing is multifaceted, requiring proficiency in several areas of skill and knowledge (Archibald and Jeffery, 2000).

Writing in the ESP (English for Specific Purposes) context poses more difficulties for the second-language learner because the student has to master the content vocabulary as well as use it in a meaningful context. Writing in General English involves writing about general topics, while ESP texts focus on academic topics using specialized content, terminology and conventions. From the perspective of an ESP teacher, it involves many responsibilities in comparison to those of an ordinary general English teacher (Robinson, 1991; Ortega, 2004) since she has to be a researcher and a collaborator, and have a substantial awareness of the scientific or academic content of the students' courses (Dudley-Evans and St. John, 1998).

In Arab universities at a tertiary level, students are expected to write in English in order to take notes, write reports, answer exam papers and write theses (Doushaq, 1986; Fageeh, 2003). Thus, there is a need for students to acquire basic writing skills and be aware of the

relevant academic genres. It has been argued that Arab medical students do not have the necessary basic skills to write clearly in examinations as well as in their assignments (Saunders and Scialfa, 2003). Moreover, medical students will be required to cope with writing medical reports, case histories, for academic medical journals during their careers and for content courses.

The main purpose of this study is to discover the writing needs of medical students. A general needs analysis is carried out to find out these needs in both the ESP and the MB course specifically in the first year of medicine. General needs include “wants” and “lacks” of students in their writing for their first year in Medicine (see 2.7). Data was gathered through: semi-structured interviews with Medics I/II students, the Deputy Head (DH) of the English Language Center (ELC), the Dean of Medicine (DM), ESP/MB teachers and coordinators. A questionnaire was given to 267 students at the beginning of the Autumn term, 2006, requesting information about their perceptions of writing in Medics I.

First-year medical students take a writing component and are expected to pose and answer essay and other questions in their mid-year and final year examinations. MB is the only content subject which involves some kind of writing. One of the ways to understand the writing needs of medical students is through discovering the ESP and MB teachers’ perceptions of their students’ needs and writing difficulties. The ESP course that is currently taught in the ELC is mainly concerned with general English with a focus on medical, scientific content. Topics revolve on scientific topics, but primarily are focused on language. The ESP course taught in the ELC does not follow a typical ESP course where students are supposed to write scientifically with an awareness of medical genres.

The concept of collaboration as discussed in this thesis is based on Vygotsky’s notion that learning takes place through social interaction (Palinscar, 1998; Mujis and Reynolds, 2005; Adams, 2006). Most of Vygotsky’s works refer to the mentor and the student – students can be scaffolded to reach their potential (Vygotsky, 1978). In my study, I perceive social interaction between teachers of different disciplines where they come together and achieve the goal which is meeting the students’ writing needs. Mujis and Reynolds (2005, p. 65) claim that:

constructivist theory involves a belief that our practical knowledge is positioned within relations among practitioners, social structures, and organizations. A key concept in constructivist collaboration is 'purposeful talk,' talk that allows opportunities for pupils and mentors to examine, elaborate, assess and build their knowledge in a social context.

I will argue that teachers can alternate in the role as pupil and mentor in teacher collaboration. Donato (2004) conceptualizes collaboration involving a recognition of individuals as parts of a cooperative activity and the contribution of individuals in the service of a larger goal. Thus, collaboration constructs new knowledge that goes beyond any knowledge possessed by a single member in isolation (Vygotsky, 1978). When teachers from different departments cooperate, they are exchanging and constructing new knowledge. Through social interaction, if the MB teacher is scaffolding the ESP teacher with relevant content and in return the ESP teacher communicates the essential language awareness to the MB teacher, they should be able to build relevant new knowledge that is available to all students.

This raises the issue of teacher collaboration or teacher partnerships. When teachers collaborate, they are opening channels of communication and sharing knowledge regarding materials, students' problems, and clarifying knowledge. In such a scenario, when an ESP teacher refers to an MB teacher, she is trying to comprehend the meaning of content, or may need references to increase some content knowledge. Similarly, when the ESP teachers are discussing writing problems, MB teachers become more aware of these and other problems and may highlight them in their classes. Therefore, both departments are helping each other, and eventually scaffolding the learner to learn to write with clear objectives and relevant content that will both meet their students' writing needs in their tertiary education and enhance their own professional development. Simultaneously, when teachers collaborate, they can also learn from each other and reflect on their weaknesses and strengths as teachers.

There was an attempt to integrate the ESP and MB departments. Medics I coordinator, Mrs. Aliya, and an MB coordinator, Dr. Wadea, proposed integrated teaching of MB and English in the first year. Both these names are pseudonyms. In effect, the MB teacher would give a single lecture on a given topic, and then the English teacher would use the same topic as the source of reading material, word analysis and dictation. However, this did not take place.

The underlying reason could be that there is no established management to coordinate this kind of activity. Though there is mutual consensus from both departments (male/female), the final decision has to be agreed by the male department.

Integration of language and other subject content can take place in a process where students learn core subject material through the use of the target language; i.e. the concurrent teaching of academic subject matter and second language skills (Brinton, *et al.*, 2006). This is generally referred to as CBI. Based on early studies of CBI (Crandall, 1987; Brinton, *et al.*, 1989), integration helps to motivate teachers. ESP and content teachers in this case can also be led to collaborate about problematic issues that their students face, and share materials so that the pedagogy meets the students' needs. However, in this study's context, the question of collaboration had yet to be explored. What were the teachers' (ESP/MB) perceptions regarding collaboration? Were ESP teachers and content teachers willing to collaborate? What models of integration were available?

I have not been able to identify any study exploring issues of cooperation/collaboration among teachers in meeting the writing needs of medical students in an Arab university. This study then aims to explore the possibilities of collaboration between the ESP and MB teachers from the two departments to see whether they are willing to collaborate and to what extent.

1.3 Rationale

I decided to investigate the writing needs of Saudi students in the first year of Medicine in order to make recommendations for changes to the writing component and the curriculum in the ELC. The piloted questionnaire and semi-structured interviews revealed that teachers and students had different views about writing needs. Many students felt incapable of expressing themselves in writing and argued that the writing materials needed upgrading. One student noted that the material provided in the writing classes in the Medics I writing component was repetitious and of little use. Two students failed to see the importance of writing in English and thought it irrelevant. On the evidence of these interviews and the questionnaires I suggested that the Medics I writing component was in need of re-evaluation to identify the flaws and amend them for the future. Based on the pilot study findings, the research questions were formulated (see 1.5). The pilot study raised questions about how the writing needs were perceived by the parties involved, the DH of the ELC, the MB teachers/ coordinators and the medical students.

The other aim of the study was to examine how the ESP and MB teachers can work together to meet their students' writing needs. In a pilot study, five ESP teachers and two content teachers were interviewed (see 3.7.1). Different views regarding collaboration were expressed. Two ESP teachers found it possible to collaborate with content teachers while three found it

difficult. Two content teachers were willing to work with the ESP teachers but had different views regarding their students' needs. Whereas the majority of the ESP teachers wanted to improve students' basic writing skills as well as raise awareness of how to write medical reports and case histories, the majority of the content teachers wanted to help students improve their basic writing skills in order to perform better in examinations. There was constant criticism from the two MB teachers that ESP teachers did not teach writing, and that the students' level of writing was poor. It seemed that there was no ongoing relationship between them. Both groups seemed to work independently. There was no formal or informal negotiation nor any systematic relationship between them regarding the curriculum, teaching instruction, materials and student learning but there was an exchange of some selected materials from the MB class for use in the English class. Cooperation has been an historic problem in SAU. Can ESP teachers cooperate with MB teachers? It was evident from the pilot study, that some teachers are willing to cooperate and some not.

ESP or CBI (Content-Based Instruction) alone may not be effective unless collaboration takes place between ESP teachers and MB teachers. It is noteworthy that CBI reflects learners' needs for learning a second language, and that also serves ESL students in their general academic studies and can apply to mainstreaming (Richards and Rodgers, 2001). Collaboration between the two departments is thus essential in order to meet students' writing needs. The outcome of collaboration would make MB teachers realize the significance of writing and highlight its relevance in the classroom (see 2.5).

The current study employs a mixed methodology in an attempt to provide valid findings from all perspectives. In section 1.9, the Arab context and the Arab learner will be described in order to gain a better understanding of the sample selected for this study with the main aim of exploring further the possibilities of collaboration between the ESP and MB teachers. Models of integration such as the theme-based model, the sheltered model, and the adjunct model have been mostly applied in secondary and post-secondary schools and at undergraduate level in the United States of America, Canada, Europe and Asia (Stryker and Leaver, 1997; Brinton, 2006). One of my aims is to identify which model will be appropriate in the Arab context.

Studies of teacher collaboration in tertiary contexts can take place in the form of exchanges through: 1) analysis of texts, materials, and curriculum; 2) classroom observation, reflection, and feedback; 3) collaborative action research and reflection; 4) development of integrated or complementary lessons, materials, or curricula; 5) collaborative or team teaching; and 6)

collaborative university courses for pre-service and in-service teacher education (Vance and Crosling, 1998; Arkoudis, 2006). These research projects have been carried out in the United States (Brinton, *et al.*, 1989), Oman, (Flowerdrew, 1993), the United Kingdom, (Creese, 2002), Australia (Arkoudis, 2006), Hong Kong (Davison, 2006), and South Africa, (Jacobs, 2007).

It is argued that teachers are still struggling to find ways of working together effectively (Crandall and Kaufman, 2002; Davison, 2006). Arkoudis (2006) presented a theoretical framework that can be used to explore the dynamics of collaboration between ESL and subject teachers in secondary schools in Canada. It is argued that developing collaborative practices between teachers who belong to different subject disciplines and who often have different views of teaching is a complex process. Though teacher collaboration appears to be successful in meeting the students' needs (Vance and Crosling, 1998), there are many challenges to be considered: 1) the use of content (Spanos, 1989; Chang, 2007); 2) the status of the English language (Auerbach, 1993; Findlow, 2006); 3) the status of the ESP teacher, (Creese, 2005; Jacobs, 2007); 4) administrative issues; 5) interpersonal issues (Hargreaves, 1994; Davison, 2006); and 6) having clear goals (Hyland, 2006).

1.4 Significance of the problem

This study aims to help ESP and MB teachers become aware of the present situation and seek ways of improving it. Some in-depth research has already been undertaken on English writing problems in Saudi Arabia. Fageeh (2003) explored the beliefs of 37 male Saudi students majoring in English at King Khalid University regarding their English writing difficulties. He found that the writing instruction focussed mainly on form and memorization. The participants considered writing a difficult skill requiring grammar and vocabulary knowledge. They also seemed to be interested in technology but had limited access and training in the use of word-processing and the Internet. Results indicated that students need to be exposed to different writing genres, skills and strategies with effective feedback to improve their writing ability. The study is significant since it aimed to fill the gap in the current literature by taking an in-depth look at the writing context of medical students and ways of improving it through teacher collaboration. Thus, the perceptions of students, teachers, coordinators and administrative bodies may be significant in raising an awareness of curriculum change, decisions regarding materials and ways of innovating instruction. Hutchinson and Waters (2008) signified the relevance of students' needs in terms of their "lacks" and "wants" in a course. Studies on students' perceptions have contributed to curriculum change, raising the importance of the different views and suggestions to course/materials, academic and professional needs (Bosher

and Smalkoski, 2002; Kavaliauskiene and Uzapaliene, 2003; Al- Ghonaim, 2005; Al-Khatib, 2005).

Borg (2003) highlighted the importance of teachers' perceptions as part of teacher cognition. Examining teachers beliefs towards students needs may also assist in developing an awareness of the current needs of any given course. Their perceptions as professionals in an academic setting may contribute additional knowledge of how teachers think and perceive learning (Borg, 2003). He described teacher's beliefs and perspectives as constituents of the wider notion of teacher cognition. Thus, the relevance of teachers' perspectives comes under teacher cognition and their perceptions help in raising an awareness of the various views on learning to write and effect innovation to the curriculum. Past studies by (Tsui, 1996; Gulliver, 2001; Zhu, 2004; Wu and Badger, 2009) have manifested this. Additionally, this study explores the current situation to see whether collaboration between language and content teachers can help in meeting the writing needs of medical students by taking perspectives from students, teachers and relevant literature.

Benesch (2001) noted the success of collaboration across the curriculum with a team of language and content teachers working together to develop curricula for students on general education undergraduate courses at a US college. Such collaborative CBI programs require the coordination of instruction, activities and assignments between language and content instructors. The major goal of the content-linked language course is to equip students with academic literacy skills across the curriculum and the necessary genre knowledge for them to succeed academically. One study explored an integrated approach to the teaching of academic literacy, where language and content lecturers worked collaboratively to integrate academic literacy teaching into various disciplines (Jacobs, 2007). The findings suggest that higher education needs to create opportunities for the collaboration of language and content lecturers, as well as an expanded role for language lecturers, to stress the importance of academic literacy teaching. There has been no previous research where teachers, coordinators, the Dean, and heads of department were given the opportunity to present their views regarding writing needs and collaboration. Other studies, mainly in a Western context, however, have mentioned collaboration for staff development and teacher education (Nunan, 1988; Kaufman and Brooks, 1996; Howe, 2007).

1.5 Research questions

This study includes perceptions of 267 Medics I and Medics II students, towards their writing needs taken from the questionnaire. It also includes perceptions of 16 of 267 female medical students (I and II) on their writing needs. Additionally, nine teaching and management participants from ESP and MB were interviewed regarding student writing needs, and on teacher collaboration and its challenges.

These questions were formulated on the results of the pilot study:

- 1- What are the needs of Medics I and Medics II students in Medics I English writing in terms of their necessities, lacks and wants?*
- 2- What are the different perceptions regarding the writing needs of Medics I and Medics II students?*
- 3- What is the current level of co-operation between ESP teachers and MB teachers?*
- 4- What are the issues and challenges in the collaboration of ESP and MB teachers?*

The objectives of the study are:

- To investigate the (ESP/MB) participants' perceptions of their medical students' writing needs ("lacks") in writing;
- To discover common writing problems;
- To discover which specific skills in writing students actually need;
- To discover students' perceptions of the writing syllabus, materials, activities, instruction and exams;
- To investigate what kinds of writing the MB course requires;
- To investigate whether the ESP writing class has helped the students in their MB course;
- To discover whether there is cooperation between the two faculties;
- To find out how the ESP and MB teachers feel about cooperation with the MB teachers and vice-versa;
- To investigate ESP and MB teachers' views regarding the possibilities of collaboration in the first year of medicine;
- To gain an insight into the different models of collaboration internationally;
- To uncover the challenges of collaboration.

An understanding of Arab writers' needs begins with an understanding of the context and their educational background. In the following section, I focus on Saudi Arabia as a country in terms of its geographical position, its educational system, and the role of English in Saudi Arabia as it affects the Arab learner and his writing and medical students and their writing.

1.6 The Saudi context

Saudi Arabia is located in the Middle East with a population of almost 19 million people. It was formed in 1932 by King Abdul-Aziz Ibn Abdul Rahman Al-Saud (Hamdan, 2005). Geographically, it comprises four-fifths of the Arabian peninsula, and occupies approximately 2,250,000 square kilometres, which makes it the largest nation in the region (Al-Segahayer, 1998). It is a distinct geographical entity bordered to the west by the Red Sea, to the south by the Indian Ocean, and to the east by the Arabian Gulf (ibid.). Saudi Arabia is an Islamic state in which the Shariah (Islamic holy law) controls the legal framework (Sedgwick, 2001). Arabic is the official language and Islam is the official religion.

1.7 The educational system in Saudi Arabia

The educational system of Saudi Arabia is composed of six major stages, illustrated in Table 1-1.

Table 1-1 Educational structure in Saudi Arabia

Stages of study	Age (years)
Postgraduate	>23
University	18-22
Secondary	16-17
Intermediate	13-15
Primary	6-12
Kindergarten	3-5 years

The kindergarten stage, which is usually provided by private institutions, usually charges fees. The primary stage follows; it is composed of six grades and students enrol at the age of six. In the intermediate stage, students are enrolled by the age of 12. The stage consists of three grades. Students who manage to pass these grades proceed to the secondary stage. The

secondary stage marks a decisive stage which students enter at the age of 16-17. It consists of three grades. In the secondary stage, all students follow the same curriculum. Then they have to decide whether to enrol in the Arts or the Science stream which will then influence their choice of major subjects at university. Students who finish the final year of high school are rewarded with a secondary certificate which enables them to be admitted to undergraduate programmes at college or university.

Presently, there are eleven universities in the Kingdom of Saudi Arabia offering undergraduate and postgraduate courses to students from 18 years upwards. Students who enter the university or college must have passed the high school certificate. The courses they take at the university are based on their selected major in the secondary stage. All the universities in Saudi Arabia are managed by the Ministry of Higher Education. However, there are some colleges and schools in the private sector. There are other schools and institutions offering different kinds of education such as technical education, vocational training, religious education, special education, etc. which cater to students' needs (Al-Qhatani, 1999).

1.8 The role of English in Saudi Arabia

Mastery of English is the road to knowledge, education, technology and scientific advancement, business and international trade (Fatany, 2007; Al-Khayaal, 2007). As Crystal (2003) notes the English language plays the role of a global lingua franca or world language. English is used as the main language for communication and collaboration with people around the world. It is considered an important language at the tertiary level especially in the SAU College of Medicine where the medium of teaching is English for scientific courses (Maher, 1986; Al-Qhatani, 1999). English helps to lay a foundation for academic studies and future professions such as medical practitioners. Because of its global adoption, English is the only foreign language that is taught to intermediate and secondary students in Saudi Arabia. In 2004, English was introduced in grades 5 and 6 in government schools. Before then, English was taught only from the age of 12. It is now a compulsory subject for grades 5 to 12 in both male and female schools. Saudi students used to study English for 45 minutes a week which is a total of three hours weekly. All the four skills were simultaneously taught. The topics in the English courses concentrated on Arab culture, focusing on lifestyle, family orientation, and less on issues concerning Western culture.

1.9 The Arab learner and writing

The present SAU students' exposure to English writing started from the sixth grade where they were taught the English alphabet, filling in the blanks, writing simple but sometimes complex sentences. When students arrive at the SAU, they may be beginners, intermediate or advanced level students in terms of their English language skills. They were used to methods of teaching like the Controlled Approach, the Guided Approach, and the Free Writing Approach (Alkhuli, 1989; Al-Mutawa and Kailani, 1989). Arab learners typically pass through consecutive stages in acquiring writing skills such as handwriting, copying model passages, controlled writing, and free writing. Alkhuli (1989) claims further that it takes considerable time for writing skills to be acquired and contends that more challenging writing techniques should be utilised for advanced learners, such as descriptive, narrative, persuasive and précis writing.

Most Arab students seem to rely mainly on the teacher for model passages, and consistent guidance on how to write. This is called instructivism or the transmission model of teaching and learning (Caley, *et al.*, 2002). Students tend to become passive learners since there is an over-emphasis on theory in the classroom. There is no opportunity for students to interact with the teacher or even with peers. Therefore, there is little social learning in the classroom. Rote memorization of basic texts remains a prime feature of the educational system of Saudi Arabia even today and goes back to the kuttab school (Rugh, 2002). Tests and examinations usually involve an assessment of rote-learned notes, and tasks requiring personal opinion or creativity may be considered unfair (*ibid.*). Thus, the Arab learner has to put extra effort into learning to reproduce ideas in writing. The main philosophy underlying education in Saudi Arabia is the religious teachings of Islam (Saleh, 1986). The word 'Quran' itself is derived from the word 'reading' and the first verse of the Quran is a call to read and write. Though rote learning is unpopular, it is a feature of Arab life and is still applied within second language classrooms around the world (Tinkham, 1989).

Three characteristics are apparent in an Arab school: government regulation, rote memorization and an intensive curriculum based upon the study of religion (Rugh, 2002). A further common feature in Arab educational systems is that the curriculum focuses upon the textbook (Al-Nafisah, 2001; Khafaji, 2004; Al-Maini, 2006). Thus teachers do not have the

freedom to use other materials. In such circumstances, according to my experience with Arab learners, they may find it difficult to cope with learning within the university and any form of higher education. Furthermore, the intermediate and secondary English curriculum does not prepare the students well for university English courses (Al-Nafisah, 2001).

1.10 Medical students and writing

The English language is considered as the medium of teaching and learning instruction in many medical schools around the world (Lucas, *et al*, 1997). Hassan *et al*, (1995) have shown that medical students' academic performance is correlated with their performance in English. There is still a debate on the importance of the English language in the Medical department since Arabic is the main language in the classroom. Eggly, *et al.*, (1999) noted that deficiency in English has been considered as a barrier to success for international medical residents (IMGs). The deficiency in English language skills has been considered a barrier to international medical graduates' ability to excel in many aspects of their training (Chia, *et al.*, 1999; Kim and Kim, 2005; Chang, 2007).

Medical students need to write in English in their academic life and in their professional careers as doctors in the future (Chang, 2007). Writing is not only relevant in the medical students' academic studies but also in other occupations such as doctors, engineers or business people (Dudley Evans and St. John, 1998). In Bacha's (2000) study, perceptions of university students and faculties were investigated on the relevance of English in the professional setting. The results showed that English is no longer considered an acquisition of skills, but a whole learning process related to both academic and professional communities.

When medical students graduate in the college of Medicine, they will need to write medical reports and case histories. If they are not equipped with basic writing skills, and are unfamiliar with the different genres of writing, they will not be able to write within their profession (Kim and Kim, 2005). For more information on the writing materials used in ESP classes and MB materials (see 3.4.5 and 3.4.6). The clarity of a well written medical report is essential; if it is unclearly written, it may indicate a wrong diagnosis and not appropriate for future reference. It has been suggested that mastering the sophisticated professional and technical language of medical education is the biggest challenge for medical students (Lucas *et al.*, 1997 cited in Al-Qhatani, 1999, p. 159).

Organisation of the study

The remaining chapters are organized as follows: Chapter Two is a literature review, the purpose of which is to illustrate the theoretical foundation of the study by considering past writing pedagogy and writing difficulties in relation to Arab learners. Then, writing in Biology, defining ESP, Needs, lacks, and wants (students' and teachers' perceptions), Social constructivism, CBI, defining collaboration and discussing its challenges.

Chapter Three presents the methodology followed to achieve the objectives of the study. The rationale for carrying out a case study and the context of the study will be described. The reasons behind selecting the methods (questionnaires and semi-structured interviews) for collecting the data are described, as are the techniques used to analyse the data. A description of the research design of the questionnaire, data analysis, accessibility issues, validity and reliability, ethical considerations, and the pilot study are discussed.

Chapter Four presents the questionnaire and interview findings related to the students' perceptions of their writing needs ('wants' and 'lacks'). Their perceptions of instruction, activities, materials, exams, the effect of English on MB and the use of a study guide in the MB/ English class are highlighted.

Chapter Five presents the ESP and MB teachers' perceptions regarding their students' writing 'lacks.' Perceptions towards writing syllabus, materials and exams are also explored.

Chapter Six highlights the ESP and MB teachers' views regarding cooperation, collaboration, team-teaching and the challenges of collaboration. The themes revolve on decisions about the use of content, the preference of L1 in teaching content, administrative issues, interpersonal issues and clarity of goals.

Chapter Seven provides a conclusion which summarizes the findings with recommendations for the current curriculum in writing, and includes a proposed model of collaboration for teachers applicable to the SAU context based on the present findings and views from past literature. It presents implications for the students, teachers, SAU administration and the writing curriculum.

2 LITERATURE REVIEW

2.1 Introduction

The literature review will focus on writing pedagogy, issues in second language acquisition for Arab learners with special reference to the Arab context, writing for Biology and ESP teaching. The review will also examine social constructivism theory and teacher collaboration. Social constructivism is mentioned only to justify the importance of teacher collaboration but it did not inform the design and the conduct of the study. Finally, CBI (Content-based-instruction) models of integration, teacher collaboration and its challenges will be discussed.

2.2 Writing pedagogy

Writing pedagogy is an important element within the process of learning to write in the second language. There is a considerable amount of research on teaching writing techniques in a second language. I will discuss four main teaching approaches that have been used in the past that may raise an awareness of the past: namely the Product Approach; the Free Approach; the Process Approach; the Genre Approach.

2.2.1 Product approach

The product approach, also is called the controlled approach. It emphasizes the format of drill-fill-ins, substitutions, transformations, and completions (Raimes, 1996). This is also known as the traditional approach (Raimes, 1991). The product approach concentrates upon formal accuracy, vocabulary, sentence patterns and cohesive devices (Pincas, 1982). The writing was based upon accurate application of grammatical rules (Raimes, 1991). The product approach is taught through the audio-lingual method where learners are seen as models who repeatedly imitate forms (Richards and Rodgers, 1986). According to Lightbown and Spada (1993), audio-lingual teaching is based upon the behaviourist theory of learning, which focusses upon the formation of habits through practice, memorization, and repetition of grammatical structures in non-contextualised settings. This could cause a major problem since students may not be able to generalise into other contexts or write creatively as they have to rely upon rote-memory and form (Richards and Rodgers, 1986). The Product Approach has

been applied extensively in the teaching of writing at the high school level and to some extent at the tertiary level in the SAU context.

2.2.2 Free writing approach

Similarly, SA students are exposed to free writing at the high school and tertiary level. Free writing encourages students to express themselves creatively and emotionally when writing about themselves, their family, or their country. Learners design essays on specific topics, but place undue emphasis on grammar or spelling (McDonough and Shaw, 1993). In the Free-Writing Approach, Briere (1966) argues, content and fluency rather than form are prioritised. Raimes (1983) adds that there is also a concern for audience. Free writing may give the student extra practice of writing uninhibitedly, whilst the Product Approach is more helpful in reinforcing the basic skills of choosing appropriate vocabulary and correct sentence patterns. Free-writing may be implemented more in a literary class where there are opportunities to write extensively and use different registers: poetic, narrative, descriptive, expository, for example.

2.2.3 Process approach

Process writing involves generating ideas through brainstorming, having a purpose, ordering information and drafting through peers and continuous feedback (White and Arndt, 1991). It provides students with a series of planned learning experiences to help them comprehend the nature of writing at every level, and requires an organized teaching of skills (Seow, 2002). It can develop the learner's cognitive processes and thus writing ability through peer and teacher revision (Zamel, 1982). This may contrast with the traditional product approach, where form is the prime focus rather than creative thinking (Silva, 1990). Furthermore, the Product Approach takes account of the final product rather than the process of writing (Zamel, 1982). Badger and White (2000) claim that process writing aids writing development and helps the learner to improve writing skills. The approach supports the principles of learner-centeredness, encouraging individuals to take more responsibility for their own learning through discussion, tasks, drafting, feedback and revision (Jordan, 1997). Kern (2000) argues that process-oriented teaching does not acknowledge the influence of the socio-cultural context on individual processes, It prevents them from being aware of the communicative conventions that allows them to construct meanings in the academic and the social context.

2.2.4 Genre approach

After Process Writing, the notion of Genre Writing, introduced by Swales (1990) has helped in the development of writing instruction. “Genre-based approaches perceive ways of writing as purposeful, socially situated responses to particular contexts and communities” (Grabe and Kaplan, 1996). Swales (1990) argues for the significance of genre as having a purpose in advanced writing development. He points to the knowledge of genre as a critical step to bring awareness to students' learning. Genres serve meaningful purposes and provide frames for academic schema-based sets of knowledge. He further contends that the ability to use a genre structure effectively will develop students' abilities to learn successfully in academic contexts. This could assist advanced learners who already have acquired basic reading and writing skills to become aware of the different kinds of genres. Examples of written genres are fiction novels, grant applications, course syllabi and reports (Swales, 1990). Different genres pertaining to medical students, could include case histories and lab reports, which have not been thoroughly discussed or referred to by the teacher, which may make it difficult for students to comprehend. However, exposure to the different genres may both increase students' awareness and reinforce basic writing skills (Kim and Kim, 2005).

For Jordan (1997) genres in academic written English include research articles or papers (especially their introductions), abstracts, theses, and dissertations. Swales (1984) analysed the introductions to 48 academic articles. He found that the majority followed a four-move pattern. Further genre examples are fiction and non-fiction. For instance, a fiction genre may be a novel which follows a certain structure or a story line. It follows a fixed structure such as a beginning, a middle and an end. Non-fiction could be an academic essay which is divided into a fixed pattern such as an introduction, body and a conclusion. Badger and White (2000), however, point out the negative aspect of genre approach since it does not consider the process of producing a text, and perceives learners as passive.

2.3 Writing and issues in second language acquisition

It may be relevant to address some issues in second-language acquisition to understand better comprehension of how ESL writers function. Towell and Hawkins (1994) asserted that second-language learners tend to face difficulties in applying new rules in writing despite having an understanding of the rules. It is important to consider Anderson's ACT, a knowledge processing theory called Adaptive Control of Thought (ACT). According to this, writing involves the process of storing different kinds of knowledge (i.e, declarative

knowledge: essential knowing and procedural knowledge - knowing how (Anderson, 2005). For instance, if the learner is capable of understanding a rule in writing, then he or she has declarative knowledge of the rule. Procedural knowledge takes place when the learner is able to apply this rule in writing. According to Anderson, the move from declarative to procedural knowledge takes place in three stages: the cognitive, the associative and the autonomous stage (Anderson, 2005). In the cognitive stage, students learn about rules in writing while in the associative stage, they learn how to apply the rules in context or in a sentence. Finally, in the autonomous stage, the students apply the rules in writing. Essentially, Cook (2001) emphasizes language learning success is influenced by practice that may eventually build up language. It is argued that, sufficient practice and time both inside and outside classroom will significantly improve performance.

Another factor that influences reluctance to write could originate from the learners' intrinsic or extrinsic motivation (Mackeachie, 1999). Ushioda (2008) suggests that learners with an incentive to pass their writing exams will want to do their best. Indeed, learners who are interested in writing, will be intrinsically motivated to master writing skills. Ushioda (2008) further asserts that intrinsic motivation not only encourages natural learning but effects the individual's attitude which contrasts with extrinsic motivation which is primarily temporary and without the promised incentives. Motivation to write could be enhanced through the use of computers as an aid for revision, facilitating writing activities and encouraging motivation (Davidson, 1996; Nelson, 2000). For instance, the use of computer may provide interesting activities to enhance practice and also the use of visuals/images may motivate the learner. Bruning and Horn (2000) argued that motivating students' positive beliefs about writing by developing authentic writing goals and providing students with a supportive context for writing can impact on their motivation to write.

2.4 The Arab learner and writing difficulties

Writing consists of punctuation, cohesive devices, organization, skills, spelling, vocabulary, grammar and syntax (Raimes, 1983; Hedge, 2001; Shokrpour and Fallahzadeh, 2008). Due to its complexity, it has been argued that writing is the most difficult language skill (Kroll, 1990; Ortega, 2004). The difficulty lies not only in formulating and organizing ideas, but in transferring them into written text (Kroll, 1990; Myles, 2002). Writing in various academic disciplines, such as Science or Medicine, is even more complex (Cozens, 2006). Writing in English in the MB course is a compulsory element in the Arab university. However, Al-

Segahyer (1998), discovered that English is not immediately relevant to the Arab students' needs in high schools and universities. They do not consider learning the language a priority. Primarily, their efforts are devoted to acquiring that level necessary to proceed to the next level, writing is only learnt in order to pass exams.

Students may have different writing needs; for instance, to become successful academic writers and acquire the skills to prepare themselves for studies within their disciplines. Thus, identifying the objectives to teach particular groups of students represents an important starting point when developing L2 academic writing courses. Due to the status of English as an international language (EIL) and the increasing number of students learning ESL, writing skills are essential for both educational/occupational purposes. There has been extensive research into students' problems and needs regarding this (Bacha, 2002; Hyland, 2003). These studies were selectively reviewed for their relevance to my study.

A) Grammar

Existing literature suggests that grammar and vocabulary are problematic for second language students (Leki and Carson, 1994; Hinkel, 2002). According to Ryan (2005), the formality of the education system of Arabic speaking learners of English consists of traditional drills and structured written exercises. Students have to abide by form of writing rather than write freely creatively. Hinkel (2002) notes that traditional approaches to grammar largely focus on the inflectional forms of English verb tenses with the teacher's explanations of the forms. However, an innovative way of teaching grammar is to contextualize it thus raising learners' awareness of how language is used in real life.

Kambal (1980) analyzed errors in three types of free composition written by first year Sudanese University students. His study describes the major syntactic errors in the verb and noun phrase in an attempt to comprehend the quality of the remedial English program being taught in Sudan. Kambal listed three main types of errors in the verb phrase: verb formation, tense and subject-verb agreement. He proceeded to discuss the errors under five categories: tense sequence, tense substitution, tense marker, deletion and confusion of perfect tenses. Regarding subject-verb agreement, two types of error were identified: the third person singular marker and the incorrect form of the verb "to be." Khuwaileh's and Al-Shoumali's (2000) study of 150 second-year engineering and nursing students in Jordan discovered that these students had experienced similar problems in writing in both Arabic and English. Their

problems emanated from disagreement between verb and subject, irregular past tense forms, cohesion, sentence construction and lack of paragraph unity.

B) Vocabulary

Learning L2 vocabulary can be a complex process which involves seeing the word, spelling, meaning, pronunciation, grammatical status and appropriate register and what the word collocates with (Ryan, 2005). Vocabulary and grammar are problems faced by second language learners which may cause difficulty in writing (Fageeh, 2003). Al-Mutawa and Al-Kailani (1998) claim that learning vocabulary is a complex process which demands efficient practice of form, meaning and usage. They further explain that the teaching of English vocabulary to monolingual Arab learners presents an additional difficulty to the teacher because Arabic and English are such utterly different languages with different scripts, syntactic systems and word formation processes. Khan (1999) also notes that apart from grammar, vocabulary and spelling are also the major problems faced by secondary school students in Bangladesh. Doushaq (1986), too agreed that Arab learners encounter difficulties in dealing with the appropriacy of lexis, wordiness and redundancy. Zughoul (1984) found that Jordanian students also experienced difficulties of restricted vocabulary which impeded their ability to writing. Therefore, extensive and appropriate vocabulary are essential tools for those wanting to express themselves in a new language (Moir and Nation, 2008). Moreover, using the vocabulary in the appropriate context is often difficult for ESL learners (Nagy, 2005).

In the SAU context, the students learn both general and scientific vocabulary, but teaching scientific vocabulary and concepts pose challenges to the ESP teacher (Barron, 2003). In teaching writing, many instructors tend to focus on the grammar in a composition; however, lexis requires more attention (Schmitt, 2000). Northcott and Brown (2006) note that students find difficulty in comprehending the subject's terminology.

C) Spelling

Realising that many students at the King Saud University face difficulties with English spelling (Al-Jarf, 2008), research was conducted on designing a spelling course in the language program at the College of Languages/Translation. The course consisted of spelling lessons to draw students' attention to the English vowels, different pronunciations of vowels, silent letters, different pronunciations of consonants, spelling variations (American/British), spelling of irregular verbs, plural nouns, adjectives and adverbs (Al-Jarf, 2008). Results

indicated that those who took the course benefitted more than those who did not since it may have provided the students with sufficient guidance, practice and raised an awareness of the different rules in spelling.

Arabic orthography is a cursive system, running from right to left where only consonants and long vowels are written (Smith, 2001). Kharma and Hajjaj (1997) claim that Arab students face major difficulties from the irregular spelling system of English in comparison to the regular phonetic script of Arabic. The irregularities are exhibited in the silent letters such as the final *-e* as in *care, bite*, the *-h* in question words like *what, why* and the *-gh* in various words such as *night, taught*. Problems may also arise in homophones where two words sound alike but are spelled differently. Therefore, Arab learners need to familiarise themselves with the English orthography system when learning English in high school.

Some students find it difficult to distinguish between letters like *s* and *c* in spelling (i.e. "sight" and "cite"). Ibrahim (1978) noted errors attributable to the somewhat inconsistent spelling in English word derivation such as *high/ height* and *speak/ speech*. He examined spelling errors in the written work of Jordanian undergraduates and found that the majority of errors were caused by the differences between the sound systems of English and Arabic relating to the letter *b* for *p*. Arabic only has the voiced *b* not *p*. Panos and Ruzic (1983) noted inconsistency in the way many Arabic speakers represent vowels in written English. Al-Nafisah (2001) also points to the absence of capital letters in Arabic as being problematic for ESL learners.

D) Lack of ideas

Arab learners find composing in English difficult because the writing process requires them to conceptualise (Doushaq, 1986; Myles, 2002). As an English teacher, I found that SA learners frequently find it difficult to brainstorm ideas since they are not used to this. Students are not taught to brainstorm and generate ideas independently, and thus need guidance from their teachers.) It is argued that Arab students are still unable to express themselves when dealing with daily topics such as academic or general issues (Mukattash, 1983). He argues that their difficulties are due their lack of competence and confidence in English expression.

Gross, *et al.*, (2000) mention that another reason for students' lack of ideas is because they suffer from traditional classroom approaches where questioning teachers and forming individual opinions are strongly discouraged. The influence of tradition and culture also

discourages them from questioning their teachers and voices of authority. Brainstorming may reduce teacher dominance in the classroom and lead to independent learning that could motivate L2 students to write more freely without guidance from teachers.

Arguably, Arab learners may be unable to think in English since it is their second language. For instance, Khuwaileh (1995) found that Arab students usually think and prepare their ideas in Arabic and then translate into English. Thus, there is a sort of negative transfer which can result in unsatisfactorily written samples. Some words are not easily transferable.

Ways of providing ideas for learners are to build their schemata. Stott (2001, p.1) claimed that schema theory is “the process by which readers combine their own background knowledge with the information in a text to comprehend that text.” Carrell (1988, p. 2) also proposed that some students’ reading problems may be due to “insufficient background knowledge.” With better background knowledge (content schemata), students’ writing could improve. Many language researchers agree that reading and writing complement each other: as skills, thinking processes and as ways of learning (Grabe, 2001; Gordon, 2008). Eisterhold’s (1991), and Gordon’s (2008) claim that reading provides a necessary input for writing and provides vocabulary and main models (formal schematas) from which writing skills can be learned. According to Carrell *et al.*, (1988), the more exposure that the learner has to a target language, the more ideas he/she will develop. This kind of schema could be presented in visual aids or by reading stories and may be called a formal schema (Field, 2004). As Weissberg (2006) points out, listening, and speaking to people, may provide input for helping students to write. Writing tasks, such as when a student talks about an experience, enable the listener to get ideas from the talk, thus providing some kind of impetus for writing. The integration of skills is important since it allows the learner to link all skills together (Oxford, 2001).

E) Paragraph/text level

Paragraph development was also one of the main concerns that impede Arab learners’ ability to write well in the target language (Doushaq, 1986; Hill, 1986). This is because the English concept of paragraphing does not exist in Arabic writing (Al-Magableh, 1997; Fageeh, 2003). Doushaq (1986) noted the Arab learners received inadequate instruction in organizing a coherent paragraph. Moreover, Hill (1986), in the SAU context, claimed that Arab students were badly taught how to develop coherence and capacity to produce a sound paragraph.

Research shows that a student's ability to structure and organise an EFL essay is open to negative interference from Arabic (Dublin and Olshtain, 1980). Arabic discourse is not constrained to follow the introduction-development-conclusion pattern that English discourse favours in paragraph/composition structure. Kaplan (1996) explains that there is an indirect approach in Arabic whereby the subject is seen from many perspectives. Sa'adeddin (1989) has also mentioned that this approach has been attributed to the aural tradition of Arabic prose, which differs from the visual orientation of English prose. This, it is claimed, is the reason behind disorganized textual organisation which is a common feature of student writing.

f) Using connectives

Dubin and Olshtain (1980) reported that ESL readers have particular difficulty in handling cohesive devices such as 'however' and 'therefore.' The misuse of logical connectives is an almost universal feature of ESL writers (Crewe, 1990). Though they may try to use connectives to build an argument, some fail because they may not comprehend the underlying meaning (Crewe, 1990). Student writers need greater awareness of the problem and better training how to argue before deciding how to apply logical connectives. Kharma and Hajjaj (1997) noted that Arab grammarians do not distinguish between coordination and subordination in the same way as English. This may cause difficulty for Arab students when dealing with subordinate clauses in particular.

Arab learners, however, come from different backgrounds. Those students who studied in private high school tend to cope better with writing than those who graduate from government high schools. The private students have had notably more exposure to English because of extra, authentic supplementary materials. Government school students have studied a fixed syllabus which mainly involves the continual memorisation of passages. They have had less writing practice than those from the private sector (medical students, personal communication, January 15, 2006).

Other reasons pointing to writing problems are highlighted by Rababah (2005). He said that Arab students in Jordan are not competent in writing in English because they encounter problems in speaking or writing it. Outside the classroom, the target language is usually practised when students interact with English-speaking tourists. Mukattash (1983) boldly claimed that the main causes of their failures as English majors are an ineffective syllabus and teaching methodology, the lack of a target language environment and indifferent learner motivation. Arab learners also tend to commit errors in writing because of the influence of L1

on L2. Ibrahim (1978) explained further that language transfer patterns are not restricted to Arab learners but to all ESL learners. There is a sort of negative transfer which results in unsatisfactorily written samples, and some words may differ in meaning (Khuwaileh, 1995). Kaplan (1966) stated that Arabic speakers transfer rhetorical patterns from their mother tongue into their English writing.

2.5 Writing for Biology

Whether writing is a primary need in the Biology classroom is still debatable in secondary high schools (Moore, 1994). The traditional teaching of science has been through facts only from textbooks in the elementary setting in America (Tobin, *et al.*, 1990). The SAU curriculum content is defined to largely by textbooks and the questions asked in tests and examinations. The advantage of writing in science is that it helps students academically as well as in the workplace. By writing about Biology, students can deepen their understanding of the subject rather than studying for multiple choice exams (Moore, 1994). Many elementary Biology teachers do not require students to write anything in the classroom, preferring instead to use "objective" (e.g., true-false or multiple choice) exams (Moore, 1994). Moreover, when Biologists assign written work, they focus on content and ignore trivial errors in students' writing (Moore, 1994). Moreover, Lea and Street (1999) claim that subject tutors considered academic writing conventions as important, and did not raise their expectations when organizing assignments. This may imply that subject teachers are aware of the importance of writing conventions but disregard to raise it in the class.

The science teachers were concerned about the correct answers and faulty English did not matter in an EAP research project in Hong Kong. The characteristics of good scientific writing are well explained: clear, comprehensive, organized, impartial, accurate, objective and simple (Barrass, 2002). In biomedical journals, the conventional division of a scientific paper is illustrated as introduction, materials and methods, result, and discussion (O'Connor and Woodford, 1976). Coffin and Hewings (2003) claim that many students need guidance in comprehending the conventions of science genres in order to cope with their subject matter. This is because medical students may find difficulties in coping with comprehension of the conventions of science genres (see 2.2.4).

2.6 ESP teaching

Writing for specific purposes comes from the branch of English for Specific Purposes (ESP). The SAU medical students are required to write in an ESP context. ESP is usually classified into two main categories: EAP and English for occupational purposes (EOP) (Robinson, 1991). EAP relates to academic English skills at the university level and EOP relates to English for occupational purposes (Hutchinson and Waters, 1987). Learners may be, for example, doctors, engineers or business people. ESP involves the careful design of pedagogical materials for specific learners within a particular learning context (Dudley-Evans and St. John, 1998). ESP teachers often find themselves teaching a course without any knowledge of the specialist content they are required to teach (Gonzalez and St. Louis, 2002). Thus, self-instruction seems to be a common trait in this field (Orr, 1995). However, self-instruction may be insufficient since there is a need for the guidance of a teacher-trainer in the ESP field. The ESP teacher in the SAU context tries to help students to acquire the basic skills of writing and teach new terminology in the field of medicine.

Though ESP caters for the students' needs in a specific discipline, there are constraints. Among these in ESP teaching in Moroccan is the teachers' reluctance to teach a new subject of which they have insufficient knowledge. There is inadequate teacher training (Ouakrime, 1997). Ouakrime states that to meet the challenges it is necessary to develop a professional relationship with both departments and adopt an interdisciplinary approach. Robinson (1991) notes that ESP practitioners require training in designing and also using ESP material. However, Orr (2001), says the preparation of appropriate, authentic ESP materials to use is time-consuming. According to Wilson (1986), ESP teachers in the west are recruited specifically to handle this job and are constantly trained through seminars.

There has been considerable debate about how much content should be taught in the language classroom (Taylor, 1994; Chang, 2007). Chang (2007) notes that in EAP courses, the language teacher does not require specialized academic knowledge of the learner's major subjects. EAP trainers are taught to develop content knowledge in order to develop their students' fluency, and share their knowledge of the subject. This strategy has caused problems to the trainers, especially over the accuracy of the content presented (Spanos, 1989). Chang suggests that an EMP (English for Medical Purposes) teacher should have some general knowledge of the students' specialist subjects, and consider the students' language background if the students are to benefit equally from language and subject specialists.

Taylor (1994) has a balanced perspective regarding the amount of content used in the language classroom. She suggests that interested language teachers can overcome the challenges. Familiarity with the subject matter and the writing/speaking conventions of the specific disciplines facilitates the teaching of an EAP class. Language teachers are able to guide the beginner precisely because they have had to cope with new concepts themselves and are aware where the difficulty lie. The main factors for the ESP teacher are attitude and interest, not content knowledge (Taylor, 1994). Based on these two perspectives, the amount of content taught in the classroom should be sufficient as long as it meets the students' needs. It is important to note that a balance between language and content is essential. Cozens (2006) claims that time is a fundamental factor in deciding on the content of the ESP syllabus. This may be relevant since ESP teachers and content teachers need time to discuss the selection of content and its significance for the students (Andrade and Makaafi, 2001).

2.7 Needs, Lacks and Wants

Literature introduces three important terms in distinguishing the goals which teachers and curriculum designers are trying to achieve. These terms are 'needs,' 'lacks' and 'wants.' Hutchinson and Waters (2008) indicate that ESP courses are principally an investigation of the learners' needs. Consequently, for ESP courses to be beneficial, teachers and curriculum designers need to be aware of what students' needs are (Reid, 2001). In return, students' needs then provide an impetus for the curriculum. To discover the writing needs of students, their lacks and wants were explored in my study. Thus, target needs may be the encompassing term for necessities, lacks and wants. Accordingly, Hutchinson and Waters (2008, p. 54) define "necessities" as the "type of need determined by the demands of the target situation." They identify "lacks as finding out what the learner knows already, so that you can then decide which of the necessities the learner lacks" (p. 55). The learner's wants focus on learner's views to what their needs are (p. 56).

The necessities are the current syllabus that the students have to learn (see 3.4.3). For instance, one target necessity might be to read texts in a particular subject area. Thus, the target proficiency should be matched against the learner's existing proficiency. The gap between the two can be termed the learners' lacks (Hutchinson and Breen, 1979). Lacks could also be interpreted as the gap between the learners' needs and their wants.

Hyland (2003) highlights needs in general and asks more widely, for instance:

What are the learner's goals, backgrounds, and abilities?

What are their language proficiencies?

Why are they taking this course?

What kind of teaching do they prefer?

West (1994) believes learners develop a more realistic idea of what can be achieved in a given course. With their needs considered, they can expect the contents of the course to suit them better. According to Johns (1991), needs analysis research in English for academic purposes (EAP), or English for specific purposes (ESP), is mainly descriptive. Researchers concentrate on and describe the existing elements of the target situation to provide the basis for curriculum development. Therefore, teachers can provide students with the specific language which they need to succeed (Johns, 1991). Needs analysis is useful in helping to implement educational policies (Munby, 1978). Recently, however, language teaching has become learner-centered and learners' opinions are frequently considered (Hutchinson and Waters, 2008).

Richards (2001) noted that the purpose of needs analysis is to help determine if an existing course adequately addresses the needs of the potential students, and to identify any gap between what students can do and what they should be able to do. Administrators and teachers can then consider learners' needs to construct or modify existing systems in order to accommodate the learners. The next step is to develop an awareness of students' and teachers' perceptions and how relevant they are in changing the curriculum and understanding better classroom instruction.

2.8 Previous studies on perceptions towards writing

Students' and teachers' perceptions play a significant part in curriculum change. The following sections illustrate their perceptions towards different aspects in the academic and professional fronts in different contexts.

2.8.1 Students' perceptions

Students' perceptions make an important contribution to curriculum innovation if they take the opportunity to voice them. The authors mentioned below have shown the importance of students' perceptions into their own needs in an academic and professional setting. The needs which emerge may offer a sound basis for recommendations for curricular change and material innovation. Kavaliauskiene and Uzpaliene (2003) used a needs analysis questionnaire which was administered with the aim of investigating learners' needs, wants and lacks which

was considered as an essential tool to anticipate the learner's future demands. The learners had their own, specific needs imposed by the teaching institution which complicated the issue of interrelated needs, wants and lacks. Thus, the incorporation of the learner's future needs and the application of real life communication skills are now considered to be important parts of the syllabus.

Another study on students' experiences in ESL and content courses such as Business and Engineering conducted by (Leki and Carson, 1997), their study reported on how ESL students experienced writing in their EAP writing and academic content classes. Students reports on their writing in academic courses focussed on the content. Displaying content knowledge in their writing is essential for students to succeed in their course. This highlights the difference between writing for ESL writing classes and writing for content courses.

This study examines the importance of needs analysis in understanding the current situation regarding materials. Bosher and Smalkoski (2002) conducted a needs analysis in a US university to determine why so many ESL students who had enrolled on a degree nursing program were not succeeding academically. Interviews, observations and questionnaires were used to gather information about the objective needs of the students. The course 'Speaking and Listening in a Health Care Setting' was then revised to deal with these students' area of greatest difficulty: communicating with clients and colleagues in the clinical setting. Bosher and Smalkoski (2002) reported that a modified course has been successful in helping students to communicate better in clinical settings.

To illustrate past research on needs, lacks and wants in a work setting, Al-Khatib (2005) discussed an exploratory study of the use of English by tourists and banking personnel, which examined the communication needs of the personnel in the workplace by focusing on their perceptions of their needs, wants, and lacks. An empirical investigation was carried out to see whether the type of materials and skills being taught to students were applicable or not. Another aim of this study was to see whether it is necessary to modify the objectives or to update the programs in light of the findings. The results showed that the workers' perceptions of their needs were greatly affected by their attitude toward English which in turn, helped them appreciate the importance of studying ESP as a means of communication between themselves and other employers in their workplace.

Al-Ghonaim (2005) explored ESL college students' beliefs, attitudes, and experiences, on reading-to-write during an introductory college writing course. It allowed the participants to have their voices heard regarding their attitudes and experiences during a course designed to link reading and writing activities. Interviews, observation and document analysis were employed. The findings indicated that the students became engaged in reading-writing activities and developed positive attitudes toward reading to write. Although they experienced some reading/writing problems, they developed a better understanding of the reading-writing connection when passing on advice to future students.

2.8.2 Teachers' perceptions

Examining teachers' beliefs towards students' needs may also assist in developing an awareness of the current needs in any given course. Teachers' beliefs may also provide an awareness of their perceptions as professionals in an academic setting, and will contribute to their knowledge in teacher training and education (Borg, 2006). Borg (2003) describes teacher's beliefs, and perceptions as constituents of a wider notion of teacher cognition. The relevance of teachers' perspectives comes under teacher cognition and it includes experiences in schooling, professional coursework and classroom practice (Borg, 2003). Mainstream educational research in the last 25 years, has recognised the impact of teacher cognition on teachers' professional lives and some of which has already been mentioned (Richardson, 1996; Verloop, *et al.*, 2001). It is now recognized that teachers are active, thinking decision-makers who make instructional choices by considering complex, and context-sensitive networks of knowledge, thoughts, and beliefs (Borg, 2003). Some examples of teacher cognitions and practices in L2 writing instruction are illustrated below.

Shi and Cumming (1995) explored how three teachers introduced a new strategy called 'thinking prompts' into their teaching of writing in Canada. Their study suggested that teachers' perceptions of writing, showed different personal conceptions about second-language writing instruction. The results showed the diverse views perceived by individual instructors, who either resisted or adapted by them based on their personal beliefs and past teaching experiences. Their distinctive views of their work are particularly important when in considering curriculum change and pedagogical innovation of second language writing. In this study, it is the teacher's perspectives towards their student' writing needs and teacher collaboration that are highlighted.

Implementing a new change in writing instruction was also researched by Tsui (1996). She studied an EFL teacher in Hong Kong who was displeased with the product approach in writing instruction and introduced process-writing into the classroom. Nevertheless, process writing was time consuming and unsupported by the institution. Eventually, she applied a modified version which took less time. This study illustrated the changes in the teacher's perceptions and practice with time, and further focussed the way in which institutional and curricular factors hold a main effect on teaching. Sengupta and Falvey (1998) examined the ways in which L2 writing and its pedagogy were perceived by English language teachers in a Hong Kong secondary school. They attempted to outline the factors that shape teacher perceptions. Questionnaires, interviews, classroom observation, written protocol, and documentary analysis were used. The data indicated that the perceptions of Hong Kong teachers' perceptions regarding their students' L2 writing were dominated by language related concerns at the sentence level with minimal focus on either discourse related or cognitive areas of writing. Teacher perceptions will be subject to change as teacher become more aware of the benefits of curriculum renewal.

Furthermore, Zhu (2004) explored 10 business and engineering faculty member's views on the importance of writing, the nature of academic writing, and faculty roles in teaching and responding to writing. Both the business and engineering faculty focussed on the importance of writing as a communication tool in the real world. However, their comments indicated that the emphasis given to writing in the academic curriculum reflected differences in disciplinary cultures. The accompanying view of writing instruction held that both content and writing instructors should be involved in improving student academic writing skills. The language instructors should focus on basic writing skills while the content course professors should be involved in deciding content.

The importance of Gulliver's study (2001) was to include the importance of teachers' perceptions towards cooperation in the development of the EAP course in Korea. As EAP instruction generally requires co-operation between subject professors and EAP instructors, Gulliver presented data from a survey of native English-speaking teachers on the difficulty they associated with cooperation. The survey indicated that increased knowledge about EAP in Korea and improvements in relationships between Korean faculties and native English-speaking teachers may facilitate EAP development. He suggested that a strategic approach to innovation management may increase knowledge about EAP and engage stakeholders in co-operative decision-making processes which might even result in improved relations.

Wu and Badger (2009) conducted a recent study that refers to teachers' beliefs. It describes how ESP teachers responded to unpredictable situations in class where their subject knowledge was limited which is referred to as the 'In-class Subject Knowledge Dilemma' (ISKD). Unstructured interviews, classroom observations, stimulated recall were used to gather data. In six lessons, five incidents were identified where the teacher had to deal with an unpredicted situation in-class where their subject knowledge was limited. The teachers used strategies when dealing with these incidents which amounted to avoidance or risk taking. They believed that the occurrence of such unpredictable problems reflected poorly on their competence as teachers but that the strategies they used meant that the lesson proceeded effectively.

Various themes derived from including teachers' perceptions. The purpose was to get an in-depth view of their different conceptions in different disciplinary and academic settings. Not only does the issue of time affect teachers' beliefs about writing instruction, but teachers themselves have various distinct perceptions towards their profession while acknowledging the inevitable influence of administrative bodies and their capacity to facilitate and obstruct work.

2.9 Social Constructivism theory

Past studies have shown the value for language-writing teachers and subject content teachers in sharing their respective expertise for the benefit of their students (Vance and Crosling, 1998; Jacobs, 2007). Social Constructivist theory has been widely applied in second language learning and teaching (Palinscar, 1998; Daniels, 2001; Yang and Wilson, 2006). The theory is mainly applied to childrens' learning, but here it is applied to teachers learning from each other. Thus, learners will benefit from the development their teachers achieve through collaboration (Vance and Crosling, 1998; Kaufman and Brooks, 1996). My study involves exploring from a social constructivist point of view issues of collaboration between language teachers and content teachers in meeting medical students' writing needs. According to Vygotsky (1896-1934), knowledge is constructed, and learning takes place through social interaction (Vygotsky, 1978). Eventually, a form of understanding is reached through communication and negotiation (Gergen, 2003).

The social construction of learning is largely assumed to occur between a competent mentor/teacher and a student (Vygotsky, 1978; Malim and Birch, 1998) or facilitated in a process of peer interaction (Durkin, 2001). Donato (1994) notes that in the process of interaction, scaffolding takes place in which a teacher or learner helps support another. The term “scaffolding,” is a Vygotskian notion. It is not only applicable to student-teacher interaction but also to teacher colleague interaction (Wertsch, 1985).

I hypothesise that when teachers collaborate, they are scaffolding each other in terms of understanding problems which each encounters in their specific but separate experience of classroom teaching; in this case on what writing skills may be required by medical students. The information so constructed through communication, interaction and collaboration serves to elucidate both sets of expertise for both the ESP and MB teachers and ultimately for their students and contributes to a fuller understanding of the requirements of writing in a medical setting. Through teacher interaction, the learner may benefit. The learner may then be scaffolded to meet the demands that are expected from both departments. Learners may then increase their zone of proximal development since they will simultaneously learn language and content both of which will benefit them when they write for examinations, educational and future professional purposes (Vygotsky, 1978; Donato, 1994).

To repeat, teachers may not only collaborate for the sake of understanding students’ writing problems, but for their own professional growth. Ultimately, collaboration provides opportunities for reflexivity (Edwards, 1998; Howe, 2007) and modification of their pedagogic approaches. Teacher collaboration at SAU, if it works as intended, could mean that teachers from both departments develop pedagogic awareness; to their student and their own benefit.

2.9.1 Defining constructivism

It is relevant to define the word “constructivism” before discussing the term “social constructivist approach.”

Constructivist learning orientations seek to understand how pupils create their knowledge constructs and what these mean for understanding influences on thought processes. However, instead of pupils, teachers collaborate with one another and knowledge is constructed. Understanding is then developed which influences thought process

(Adams, 2006, p. 245).

Adams (2006) specifically emphasizes that teachers not only construct knowledge through interaction but also when they collaborate together. An element of constructivist teaching is collaboration (Muijs and Reynolds, 2005). Vygotsky-inspired social constructivism emphasizes ways in which children can learn from each other when they collaborate with one another or with the teacher. Social constructivists believe that our knowledge is located within relations among practitioners, social structures and organizations. A key concept in social constructivist collaboration is 'purposeful talk,' talk that allows opportunities for pupils to examine, elaborate, assess and build their knowledge in a social context. Through this interaction, there is facilitation of intellectual, cognitive development in the child and there is construction of knowledge (Gross, *et al.*, 2000). This can apply to teacher learning where teachers interact with each other and learn about themselves as teachers (see Briscoe and Peters, 1997; Barulfaldi and Reinhartz, 2002; Erikson, 2005).

A social constructivist approach to integrating writing with subject content requires close collaboration and sharing of respective knowledge areas between subject and writing specialists (Vance and Crosling, 1998). The subject specialist may need to develop new teaching methods and become familiar with the knowledge while the language specialist requires induction into conventions of the discipline. The language specialist accordingly learns from the subject specialist about the ways in which knowledge is imparted within the discipline, its central concepts and thus improves his/her teaching practice. This model may be called transdisciplinary, a model of collaboration from special education. Like the interdisciplinary model, the transdisciplinary model incorporates sharing expertise and decision-making in which team members teach one another to a high level of understanding and skill. The interdisciplinary model involves "the integration of knowledge being integrated from different disciplines" (Domik, 2008, p. 2), while the transdisciplinary model involves "the knowledge from different disciplines being integrated to form new understanding of a problem, and this might create, change and expand knowledge within participating disciplines (Domik, 2008).

Social constructivism has also been applied to learning a second language (Palinscar, 1998; Adams, 2006). There is consensus from these studies that a social constructivist approach is beneficial to both students and teachers. For instance, Barron (2003) investigated collaboration between subject teachers and EAP teachers in a tertiary setting in the University of Hong Kong, and it was concluded that constructivist philosophy is applicable to collaboration. Constructivism offers a better chance of success in collaborative ventures

because the parties share meanings and communication as well as resolve differences (Barron, 2003).

The following situations are examples where social constructivism theory is applied, interaction is encouraged, and therefore learning and construction of knowledge takes place.

A) Teacher and student conferencing provides the opportunity to interact as exhibited in one-to-one conferencing. The student has the chance to inquire and seek progress in writing and the teacher is able to provide feedback on the students' writing (Keh, 1990; Casanave, 2007).

B) When students perform writing activities in a group, they are thinking, learning and discussing relevant points together. Students who work in collaborative groups also appear more satisfied with their classes (see Nunan, 1988, Davis, 1993; Jacobs and McCafferty, 2006).

2.10 Collaboration

According to Gray (1989, p. 7):

Collaboration is a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible. With collaboration, both departments will share ideas and resolve differences with one vision in mind. Collaboration can be used effectively to settle disputes between the parties in different departments.

Thus, collaboration is a kind of cooperation (Dudley-Evans and St. John, 1998). There are three kinds of cooperation: *cooperation*, *collaboration* and *team teaching* (Dudley-Evans and St. John, 1998, p. 43). “*Cooperation* is the first stage which involves the language teacher asking or sharing ideas and questions about the students' subject course with the subject teacher. *Collaboration* involves the more direct working together of language and subject teachers, to prepare students for particular tasks or courses.” *Team teaching* is subject language integration where the actual working together in the classroom of the subject and language specialists occurs.”

According to Fullan (1999), the result of collaboration is simultaneously the emergence of new knowledge and growth for the members involved. For change to occur, collaboration requires continuous collaborative involvement, as opposed to doing things independently. Donato, (2004, p. 287) conceptualizes collaboration as "involving the realization of

individuals as parts of a cooperative activity and the contribution of individuals in the service of a larger goal.”

2.10.1 Teacher collaboration

Collaboration or teacher collaboration can be interpreted in many ways. Collaboration can also denote partnership. “Partnership teaching is a term which implies attempts to construct specific conditions for more than one teacher to support pupil's learning” (Levine, 1990, p 30 cited in Creese, 2005, p. 132). Bailey *et al.* in Nunan (1997, p. 163) conceptualize collaborative teaching in much the same way as Cunningham's (1960, p.22-3 cited in Nunan, 1997) “Coordinated Team Type” teaching. In this arrangement there is no joint responsibility for a common group of learners, but there is joint planning by two or more teachers teaching the same curriculum to separate groups of learners. Nunan's (1997) concept of collaborative teaching emphasizes shared power and shared decision-making. Integrated instruction usually involves the English language teacher discussing students’ language learning needs or their academic language problems with the content teacher (Crandall, 1998; Vance and Crosling, 1998).

Teacher collaboration in secondary high school settings and higher education in the American context specifically takes place in the form of exchange through: 1) analysis of texts, materials and curriculum; 2) classroom observation, reflection and feedback; 3) collaborative action research and reflection; 4) development of integrated or complementary lessons, materials, or curricula; 5) collaborative or team teaching; 6) collaborative university courses for pre-service and in-service teacher education (Crandall, 1998). In the SAU context, both language and content teachers have to some extent shared ideas and materials. However, such sharing is not yet part of an official policy or consistent system.

To exemplify teacher collaboration, Jacobs (2007) explored an integrated approach to the teaching of academic literacies, where language and content lecturers worked collaboratively to integrate academic literacy teaching into various disciplines. The findings suggest that to facilitate academic literacy teaching into disciplines of study higher education needs to create a better understanding for language and content lecturers to collaborate, as well as to expand the role of language lecturers.

2.10.2 Content–based instruction and content-based models

“The integration of language and other subject content is a process whereby students learn core subject material through the use of the target language; for instance, the concurrent teaching of academic subject matter and second language skills” (Brinton, *et al.*, 2006, p. 266). The notion of integration is emphasized because it gives equal significance to language and content. The rationale behind CBI (Content–based instruction) is that language learning is encouraged by an emphasis on significant content from which learners can formulate the cognitive structures that facilitate the learning of vocabulary, syntax, written and oral products (Brinton, *et al.*, 1989; Spanos, 1989).

CBI implies the total integration of language and content-learning which represents a major transition from traditional foreign language teaching to instruction on the learning of language through content (Stryker and Leaver, 1997). According to Smoke (2001), CBI was found to be pedagogically effective for ESL teachers and students (Brinton, *et al.*, 1989; Garfield-Vile, 1996). CBI is manifested in language across the curriculum, immersion education, ESP, EOP, K-12 programs for ESL students, university programs, and business and vocational courses in EFL settings (Brinton *et al.*, 1989). LSP (Language for Specific Purposes) is the most documented of the content-based language models (Brinton, 2006).

Language teaching should be related to the eventual uses to which the learner will put the language in a situation context rather than for sentence-level usage (Brinton, *et al.*, 1989). The teaching of the content alongside the language may help facilitate understanding of both language and content (Crandall, 1998). This rationale reflects Krashen's (1985) emphasis on the need for comprehensible input in classes designed for language learners. Thus, content classes provide a natural setting for the kinds of academic input which help to encourage the development of both contextualised/ decontextualised linguistic and cognitive skills (Grabe and Stoller, 1997; Kasper, *et al.*, 2000). It may be relevant for students since they are likely be more comfortable with the language heading towards understanding their main subjects.

In the pilot study of this research, some students wanted more focus on content in their language classes. Nevertheless, other students preferred language skill development. Thus, how can a balance be achieved where students fulfil both their language and content subjects' needs? Students tend to learn a second language more successfully when the content is

interesting, useful and relevant to their goals (Vance and Crosling, 1998). Crandall (1994) explained the significance of learning in a meaningful context:

"Students can't develop academic knowledge and skills without access to the language in which that knowledge is embedded, discussed, constructed and evaluated. Nor can they acquire academic language skills in a context devoid of content."

Crandall, 1994, p. 256.

Students are provided with greater opportunities to practise writing about their content area, their subject knowledge and competence will improve. Exercises can be provided to help learners write appropriate responses to exam questions in their content area (Crandall, 1998).

The three most popular types of CBI programs are theme-based, sheltered, and the adjunct model (Brinton, *et al*, 1989; Carson, *et al.*, 1997). These are illustrated below. To give the reader a summary of the models to be discussed in depth, Table 2-1 illustrates their essential features (Brinton, 2006) in relation to its purpose, instructional format, instructional responsibilities, student population and focus of evaluation. The inclusion of the CBI program here is to highlight the various ways how teachers can collaborate. For instance the CBI programs emphasized are popular in the United States. This kind of collaboration may be similar in different locations like Canada (Arkoudis, 2006), Asia (Davison, 2006) and the United Kingdom (Creese, 2002).

Table 2-1 Distinguishing features of three content-based models

	Theme-based	Sheltered	Adjunct
Primary purpose(s)	Help student develop L2 competence within specific topic areas	Help students master content material	Help students master content materials Introduce students to L2 academic discourse and develop transferable academic skills
Instructional format	ESL course	Content course	Linked content and ESL courses
Instructional responsibilities	Language instructor responsible for language and content instruction	Content instructor responsible for content instruction Incidental language learning	Content instructor responsible for content instruction Language instructor responsible for language instruction
Student population	Non-native speakers	Non-native speakers	Non-native and native speakers integrated for content instruction
Focus of evaluation	Language skills and functions	Content mastery	Content mastery (in content class) Language skills and functions (in language class)

A) Theme-based model

In theme-based courses, the language class is organized around content modules and the language teacher functions as the subject-matter teacher (Brinton, *et al.*, 1989). Theme-based modules are designed to facilitate students' entry into regular subject specialist classrooms. They focus on learning strategies, concepts, tasks, and skills that are needed in subject areas within the mainstream curriculum. Theme-based courses which are taught by ESL/EFL teachers, are "structured around topics or themes, and the topics form the backbone of the course curriculum" (Brinton, *et al.*, 1989, p. 14). In a theme-based model, the language instructor is responsible for the language and content instruction, whilst in the sheltered model, the content instructor is responsible for content instruction (Brinton, *et al.*, 2006).

In the SAU context, the theme-based model has been applied. There are disadvantages to this model. ESP teachers feel extra pressure since they have to ensure that they are transmitting both English and content knowledge. Indeed, new English language teachers find it difficult to teach the content area in the SAU context. The Medics I writing component is composed of general topics in medicine, and some of the scientific topics are unrelated to what students are doing in their MB courses.

B) Sheltered instruction

Sheltered instruction is defined as "the teaching of content area knowledge and skills in a more understandable way while also developing students' English language proficiency" (Echevarria and Graves, 2003, p. 13). The term "sheltered" indicates that such instruction provides refuge from the linguistic demands of mainstream instruction, which is beyond the comprehension of English Language Learners (ELLs)" (Echevarria and Graves, 2003, p. 13). Sheltered instruction is exemplified in secondary school grade-level subjects, such as science, social studies, and maths. It is more accessible for ELLs whilst also promoting English development (Echevarria and Graves, 2003). The approach was introduced in the early 1980s by Stephen Krashen as a way of using second language acquisition strategies while teaching. Certain features should be present in all sheltered lessons such as having language, content objectives, emphasizing key vocabulary, scaffolding instruction, using comprehensible input, reviewing material and assessment (Echevarria and Graves, 2003; Brinton, *et al.*, 2006). Though sheltered instruction is mainly used in secondary settings, it may be applicable in

university settings since the medical students in the SAU context may have not been exposed to extra help in high school. This is because sheltered instruction provides that additional help for the weak students which facilitates learning of their content subjects.

C) Adjunct instruction

In adjunct instruction, students are enrolled in two linked courses, a content course and a language course, with both courses sharing the same content base and complementing each other in terms of mutually coordinated assignments (Mohan, 1986). Stryker and Leaver (1997) noted that adjunct courses have appeared in many secondary and post-secondary settings as a means of connecting ESL classes, often offered in a language institute on or near campus, to content classes in the regular academic program. Adjunct courses seem to include a sheltered component to assist students with academic skills which helped those who are weak (Snow and Brinton, 1998). Beasley (1990) describes the success of the adjunct program in Australia whereby students' motivation was enhanced and there was positive feedback from the students. This was due to the integration of study skills, language and content.

Vance and Crosling (1998) support the implementation of an adjunct program, in which the same close collaboration occurs in terms of material development and team-teaching within the classroom. The main teaching responsibility lies with the language specialist. The adjunct model includes integrated sessions for orientation, assignment writing and exam strategies, co-taught by subject and language staff (Vance and Crosling, 1998). Learners, as a result, can grasp the learning of writing faster since the content is relevant to their learning. This may provide an incentive to learn to write since the content is significant for their future rather than their ability to write English. The team-teaching approach is a variation of the adjunct approach (Mohan, 1986). According to Buckley (2000, p. 4), team-teaching involves a group of instructors working purposefully, regularly and cooperatively to help students learn."

Team-teaching is worthwhile and helps to provide a link between subject and EAP tutors (Jordan, 1997). A good example of collaboration between EAP and subject staff is in civil engineering (Gee *et al.*, 1984). However, team teaching can have its drawbacks. Team-teaching was adopted for a CBI team teaching in a liberal arts college in an EFL setting in Japan. The instructors, it is said, did not respond positively (Stewart, *et al.*, 2002). The content and language components of lessons were often uncoordinated. Some language specialists taught English skills exclusively and failed to incorporate important content concepts in their instruction. Some content specialists ignored the language objectives for courses because they

did not want to disregard content. Partners were reluctant to alter their preferred teaching styles. Because of the close association of team teaching in the classroom, few of the interdisciplinary teams operated as partnerships, and preferred independence instead.

2.10.3 Challenges to Collaboration

Despite the positive features of collaboration, there are obstacles that teachers must overcome. The challenges are, firstly, the resistance of the ESP teachers to teach content (Benesch, 2001). Language teachers may not be prepared to integrate materials from content areas within their English classes, and content teachers may perceive themselves as unable to help English language learners to understand academic concepts through the English language (Crandall, 1998). Language teachers feel at a loss and need to learn the discipline so that they can overcome the difficulty. They may be unfamiliar with the discourse community of the content teachers (Jacobs, 2007).

In previous research, collaboration between two faculties has shown problems (Spanos, 1989). ESL teachers who wish to incorporate subject matter from other curricular areas within their classrooms are often affected by perceived time constraints such as having to accommodate topic content in a language syllabus, or feeling intimidated by the prospect of using topics which they are not trained to teach. It is pertinent to note that implementing a new program developed from integrated instruction requires careful decisions regarding teacher training, materials adaptation and curriculum development (Spanos, 1989). Spanos (1989) notes that if instruction is fragmented and without appropriate materials, training, and opportunities, problems may arise. Another major concern is having to deal with administrative issues such as finance and implementing new policies regarding collaboration (Kasper, 2000; Andrade and Makaafi, 2001).

Another issue to consider is that content teachers cannot expect English teachers to be competent in academic subjects, nor can English language teachers depend upon the content teacher for presenting academic texts (Mohan 1986). Another challenge is the content teachers' expectations of second language learners. Content teachers tend to face obstacles when encountering second language learners (Ashcraft, 2006). These content area instructors are sometimes surprised by the students' low level of English language proficiency (Sonleitner & Khelifa, 2004), and feel frustrated because, although they are experts in their academic fields, they lack the knowledge and skills to deal with language issues within their

classrooms. Ashcraft (2006) in a study “Overcoming Language Barriers in Content-Area Instruction” in the United Arab Emirates (UAE) wrote that it is hard for content teachers to understand what their students are trying to say because of their pronunciation and grammar.

Interpersonal issues tend to be inevitable when participants from different departments cooperate. There is an apparent decline in the standards of the English language in an undergraduate university in Hong Kong, and a problem of communication between language and science teachers (Braine, 2001). Arguably, where there is hostility, collaboration is unlikely to succeed (Dudley-Evans and St. John, 1998). Communication may be problematic when teachers have conflicting personalities. Kasper (2000) suggests that lines of communication among everyone involved in the department ought to be open. Teachers should be prepared for conflict and compromise, and unwillingness to negotiate and compromise during decision-making can have negative consequences (Wright, 2007). Wright (2007) adds that partners often have significant differences in preferred work-styles and vision that influence collaboration and create interpersonal tension.

Researchers who have investigated collaboration between ESL and mainstream teachers know that professional relationships can be difficult (Davison, 2001; Arkoudis, 2006). The reasons for this may be the marginalisation of ESL teachers by other colleagues and the difficulty in developing cooperation between different departments (Creese, 2002). Interestingly, in research conducted in the UK, issues have emerged about the nature of the professional relationship between ESL and mainstream teachers in a secondary school context. It is important to note that the issues raised here can apply to higher education settings since both involve participants from different departments (Arkoudis, 2006, Davsion, 2006). ESL is strategy-driven and has less authority than subjects such as mathematics and science within the secondary school curriculum (Jacobs, 2007).

In EFL/ESL situations, where English is nonetheless the medium of instruction, another major problem is the content teacher’s use of L1 rather than L2. Decisions should be made between the departments since using the medium of English in the mainstream classroom may reinforce the use of language in the classroom. According to Murphey (1997), these problems were faced in a tertiary setting in Japan. Some Japanese teachers were confident to teach content courses in English but most of them were not because they lacked confidence. Some found it uncomfortable to speak in English especially when they could transmit the meaning in Japanese and some thought the students' language ability was proficient enough to

comprehend the content in English (Murphey and Purcell, 1996). Others noted that they made too many mistakes and could be poor models for their students. The university teachers' reluctance is also due to tradition and the ease of speaking things in Japanese.

The dilemma of using L1 in the classroom appeared to be problematic even in earlier research such as using L1 in the class slows down ESL acquisition (Auerbach, 1993; Shamash, 1990). It is argued that using L1 in the class helps clarify meaning and facilitates learning (Friendlander, 1990). Martin-Jones and Heller (1996, p.10) note how "teachers fall back on code-switching in order to facilitate the students' comprehension of certain terms." The advantage of using L1 in the classroom is that it provides a sense of security for the learner (Shamash, 1990). In the Middle-East context, the issue of whether to use Arabic or English in the classroom is also a matter of which language has greater status in the classroom. Findlow (2006, p. 25) discusses linguistic dualism in higher education in the Arab Gulf, and she notes that Arabic embraces "cultural authenticity, localism, tradition, emotions, religion; while English is a reflection of modernity, internationalism, business, material status, and secularism." Therefore, using Arabic in the MB classroom may seem to hold a higher status than English due to its familiarity and the ease of understanding. It is possible that MB teachers speak Arabic in order to facilitate English scientific terms in Arabic. Holliday (2005) notes how ESL teachers struggle to teach English as an international language. He notes the power and status of a native speaker teacher is higher than that of an ESL teacher. This may imply that the native speaker may be more appreciated than a non-native speaker, ESL teacher.

The need to administer and manage teaching staff effectively may be critical for effective collaboration to take place. Stryker and Leaver (1997) note that there should be strong initial and continuing administrative support. Ali and Camp (1995, p. 11) mentioned that Arab management in education suffers from three problems: unprecedented growth, poor quality and lack of vision. Similarly, Al-Sulayti (2002, p. 299) points out problems in the United Arab Emirates educational system which resonate with the Saudi Arabian context. He cites: 1) "unclear and conflicting missions and goals, which may be apparent in problems and discrepancies in study programmes and curricula; 2) inappropriate methods of teaching and learning (inadequate use of technology); 3) inflexible curricula and programmes which lead to high drop-out rates and long duration of studies; 4) inadequate resources for higher education and scientific research; 5) problems in structures of administration and management; and 6) a growing gap between the quality of graduates and labour market needs."

The reason for the Arab management system being centralised stems from the influence of patriarchy in the past. Joseph (1996) noted the influence of patriarchy in the Arab world and other regions and its attendant problems for women, children, families and states. The article argued that patriarchy is powerful in the Arab world because age-based kinship values and relationships are crucial socially, economically, politically, ideologically and psychologically. Barakat (1993) contended that the traditional Arab father expects respect and exercises power by control over land, resources and income generation. Barakat argues that patriarchy is valued throughout Arab society because the family is the basic unit of society. The argument is that patriarchy persists because it permeates social, economic, political, ideological and psychological aspects of social and personal life which generate important implications for development planners and policy-makers. However, without any authoritative figure behind decisions, collaboration, may be pointless. Additionally, the role of authority is essential as in any educational organisation (Oplatka, 2004). The centralized controlled systems, characterizing many developing countries were considered to be a major factor for a principals' tendency to avoid change in Singapore (Zhang, 1994). Initiation is the responsibility of policy-makers and therefore they are limited to the implementation of change.

Al-Rifi (1997) encouraged participatory decision-making where subordinates in the organization play an important part in the decision-making process by encouraging subordinates to participate in decision-making aims to increase their commitment, motivation, satisfaction and help in accomplishing the organisation's goals. The organisation also gains from the combined knowledge of the superior and his subordinates, and it also promotes better decisions (Davis, 1983). It is a transition from working individually to an aura of collegiality is recommended. Collegiality is rapidly becoming one of the new conventions of educational change and social improvement (Hargreaves, 1992). Collegiality among teachers and between teachers and their principals has been noted for encouraging teacher development. According to Liebermann & Miller (1984 cited in Hargreaves, 1992) collegiality transforms teacher development beyond personal reflection to a point where teachers can benefit from each other through sharing and developing their expertise. Bennett, *et al.*, (1992) note that collegiality can be a means of creating unity by involving staff in the decision-making and process. Collegiality is thus "the language of holism, consensus, co-operation and interdependence where change is about altering practice, organization and

individual's perceptions of their roles and responsibilities" (Bennet *et al.*, 1992, p. 10). Shulman (1989) cited in Hargreaves, 1992, p. 81 says:

Teacher collegiality and collaboration are not merely important for the improvement of morale and teacher satisfaction ...but are absolutely necessary if we wish teaching to be of the highest order...collegiality and collaboration are also needed to ensure that teachers benefit from their experiences and continue to grow during their careers.

Most critiques of collegiality concern its meaning which takes many forms; for instance, team- teaching, collaborative planning, peer-coaching, mentor relationships, professional dialogue and collaborative action research (Shulman, 1992). However, two obstacles raised out of collegiality are inflexibility and inefficiency, for example of teachers not meeting when they should and programs where collegiality are practised are difficult to be managed. (Hargreaves, 1992).

Summary

To conclude, the literature review has provided an overview of the approaches to writing pedagogy, issues in second-language acquisition, writing difficulties encountered by the Arab learner, writing for Biology, ESP teaching, needs, lacks and wants, previous studies on perceptions, social constructivism theory, CBI and teacher collaboration. The significance of students' and teachers' perceptions may help in raising an awareness of curriculum change, material innovation and suggestions for implementing change. Hutchinson and Waters (2008) refer to gathering information about learners or professionals through their needs, lacks and wants. ESP teaching is then viewed in relation to its obstacles in teaching. For instance, 1) lack of teacher training; 2) the need for professional development and 3) decisions regarding content. The importance of the ACT model (Anderson, 2005) has been highlighted as an indication that ample time is required for language to be processed by the ESL learners and this applies to the learning to write in particular. In order to meet students' writing needs, teacher collaboration may help to meet students' needs. Three models of collaboration: (the theme based, sheltered and adjunct models) were discussed. Social constructivist theory comes into focus for it encourages interaction, by teachers to come together and share their expertise to overcome their students' problems in learning. The challenges of collaboration are addressed and they are: the teaching of content, the marginalization of the ESP teacher, the status of MB teachers, the use of L1 in the class, administrative issues, unclear goals, interpersonal issues, and lack of communication.

3 RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology of the main study. It starts with an exploration of the epistemological framework used to guide the research, followed by a discussion of the data generation methods. The main instruments used were questionnaires and semi-structured interviews, with the intention of using mixed-method for the purpose of triangulation. The pilot study will be discussed in terms of the questionnaire design and the interview schedule. An emphasis will be on the context of the study, methods of data analysis, validity and reliability and ethical considerations.

3.2 Conceptual framework of the research design

My study is situated principally within a positivist paradigm and an interpretivist paradigm and draws on both quantitative and qualitative data. Both positivist and interpretivist paradigms are considered below. As Creswell (1994) notes, positivism and interpretivism provide different interpretations of the social world. Creswell (1994) points out that a positivist is an empiricist, a realist and a believer in objective research, who focuses upon experimental, quantitative and statistical methods. As Fraenkel and Wallen (1990) note, quantitative data enables standardized, objective comparisons to be made and allow overall descriptions of situations or phenomena to be made in a systematic and comparable way.

In contrast, an interpretivist's views of reality are shaped by personal interpretations (Cohen *et al.*, 2000); interpretivists believe that the key to understanding their social world is found in interpreting the experiences that represents their social reality (Biklen and Bogden, 1992). Data that focuses on personal experiences is called qualitative data which comes in the form of words with a source of rich descriptions and explanations of processes in specific contexts (Miles and Huberman, 1994). They further note, with qualitative data, it can be specifically seen which events led to which consequences, and fruitful explanations can be obtained. Qualitative research enables a thorough exploration of the perspectives of the research participants, and highlights significant details invisible to the outsider. For instance, through interviewing, the interpretivist takes an insider's view of people's statements.

My study is divided into two parts. The first focusses on students' and teachers' perceptions regarding writing needs, the second explores issues of collaboration between the ESP and MB departments. The research design applied in this study is mixed-method. Tashakkori and Teddlie (2003) show that styles may be mixed in several ways; one way is to use the methods sequentially and another is to conduct the study using the methods in tandem, or both simultaneously. For example, a researcher can begin his research using the qualitative style, with open-ended ethnographic interviews, followed by a quantitative questionnaire survey from which data can be gathered for statistical analysis. Thus, the mixed-method may be helpful for obtaining an overview through a large sample while simultaneously drawing on in-depth data. The use of a research design using a variety of methods to collect and interpret that data, to compensate for the weaknesses of one method with the strengths of another, is referred to as 'methodological triangulation.' The process of triangulation provides fewer errors from the drawing of inappropriate conclusions based on one data set and thereby enhances the data's validity (Arksey and Knight, 1999). Data is then interpreted from both angles through the use of a mixed method (Blaikie, 2003).

The research design aims to use descriptive and exploratory strategies. A descriptive strategy according to De Vaus (2001) describes what is happening in a particular context, and a good description is fundamental to research. De Vaus (2001) notes that descriptive research builds knowledge. Exploratory research seeks to develop important hypotheses and propositions for further inquiry: for instance, exploratory survey exploratory experiment, or exploratory case study (Yin, 2003). These strategies are applicable when the research involves description of the incidence or prevalence of a phenomenon.

3.3 Why a case study approach?

The selection of a case study approach was based on Denscombe's (2001) notion that it permits the researcher to use a variety of sources, enabling a holistic understanding of a situation. Sturman (1994) notes that there are many types of case studies: ethnographic case study, action research case study, evaluative case study and educational case study. Educational case study may be the most applicable to my study since it is designed to enhance the understanding of an educational action. Unexplored issues will be brought to light and data will be explored in depth. This study will implement descriptive and exploratory strategies as explained by Yin (2003). I considered these strategies would help to investigate broad phenomena and identify important variables. Similarly, the descriptive strategy helps discover beliefs, attitudes, structures and processes (Stake, 1995). The descriptive strategies

would help in giving an in-depth view of the writing needs from students and ESP/MB participants; and the exploratory strategies is by identifying and identifying important variables. The descriptive strategies help in describing the students' and teachers' perspectives towards medical students' writing needs. The exploratory strategies help in exploring issues of teacher collaboration in the Arab context. Thus, case study is perceived as a "critical inquiry aimed at informing educational judgements and decisions in order to improve educational action" (Bassey, 1999, p. 39).

Insights into the phenomenon will be illustrated based on these strategies (Merriam, 1988) by allowing the researcher to focus upon the intricacies of a complex situation (Burns, 2000). Burns (2000) defined a case study as an intensive, holistic and descriptive analysis of a phenomenon. Meaning is then interpreted from the case, and the data analysis involves developing a detailed description of the case (Miller and Salkind, 2002). Gillham (2000) notes that individuals or organizations can both be illuminated by case studies.

There are, however, disadvantages to a case study. For instance, credibility may be compromised if generalizations are made from its findings. The researcher must be careful in negotiating access to case study settings, which can be a demanding part of the research process, because access to documents, people and settings can generate ethical problems of confidentiality (Denscombe, 2001). Such concerns were a feature of this research. The need to access certain documents and administrative bodies, such as the Dean of Medicine (DM) and MB exam papers from the MB Department, posed difficulties. Patience was required since people found it hard to make time to be interviewed and access to documents required permission. Confidentiality was assured for participants through informed consent forms. Documents were to be observed at the university only. Among the participants, it was particularly difficult to secure a meeting with the DM due to time constraints.

3.4 The SAU university

The institution where the study was conducted, which I will call SAU (Saudi Arabian University), is one of seven main universities in Saudi Arabia (Sedgwick, 2001). It has eight faculties, among which are Medicine, Science, Arts and Humanities. It is non co educational (boys and girls are taught separately). The tutors are both men and women in the Medical Sciences. It is an Arabic-medium university, but the students in the College of Medicine learn the main subjects in English except for subjects such as Arabic and Islamic studies.

3.4.1 The English Language Centre

The ELC, in the Faculty of Arts and Humanities, caters to the English language needs of both men and women undergraduates across the SAU, but there are separate facilities for the sexes. The tutors are men and women. Sometimes, the men tutors will go to the women's department to teach specific courses. Table 3-1 illustrates the courses in the ELC. They are briefly explained below. First and second-year English for medical students are italicized.

Table 3-1 Courses taught in the ELC

Faculty	Course
Arts and Humanities (Men and Women)	ENGLISH 110 ENGLISH 210
Economics and Business Administration (Men)	ENGLISH 110
<i>Medicine</i> Allied Sciences (Men & Women)	<i>1st Year ENGLISH for MEDICINE</i> <i>2nd Year ENGLISH for MEDICINE</i> Ist Year ENGLISH MEDICAL TECHNOLOGY 2 nd YEAR ENGLISH MEDICAL TECHNOLOGY 1 st YEAR ENGLISH FOR DENTISTRY 2 nd YEAR ENGLISH FOR DENTISTRY
Science (Men and Women)	ELC 101 ELC 102

The men's ELC caters to the needs of Engineering, Earth Sciences, Marine Sciences, Metereology, Environmental studies, Agriculture and Environmental Design Faculties. Most students are given placement tests to determine the level of their English language ability. Students are placed in classes appropriate to their level and to the specific requirements of their area of specialty. The Medics Unit of the ELC provides English Language instruction for first- and second-year medical students. The medical undergraduate students (18-year-olds) have to take Medics I English as a compulsory course. Orientation is largely based around ESP, though there is an intensive phase of approximately six weeks at the beginning of each academic year which focusses on the reinforcement of basic General English skills. The aim is to ensure students have the linguistic abilities to cope with higher education taught in English. First-year students receive 300 hours of English instruction in the course of the academic year, and they are obliged to meet the minimum attendance requirements and pass the prescribed quizzes and examinations. Courses are designed to provide training in the four skills of English: reading, writing, listening and speaking. The students attend CALL (computer-assisted language learning) sessions in a language lab three hours a week to get extra practice in grammar and medical terminology.

The ELC is headed by a director (male), and a Deputy Head (DH) (female). Decisions regarding, for instance, a proposed integration between the (ESP and MB) departments must be joint decisions with the men's department who also have their own male coordinator and teachers. If men's and women's counterparts agree, then this must be agreed by higher authority which is the main administrative body (Dean of Medicine: man/woman). The ELC is thus managed under a centralised organization.

3.4.2 Medical students in a Saudi Arabian university

The medical undergraduate curriculum extends over six years. In the first few years students focus on the basic sciences (and English), in courses termed pre-medical and pre-clinical. Usually, the first year of the programme covers pre-medical courses such as General English, MB, Chemistry, Physics and Information Technology (IT). The second and third years consist mainly of pre-clinical courses such as Anatomy, Biochemistry, Physiology, Micro-Biology and Pathology. The first phase is followed by the clinical sciences phase for 2 years. The last year is for internship. The system relies on lectures which are teacher-centred (Al-Gindan, *et al.*, 2000).

3.4.3 Writing for Medics I and Medics II

The objectives of Medics I writing is to prepare students to write sentences and paragraphs to the standards necessary in a medical context. Grammatical constructions, conjunctions and technical terms are stressed to aid clarity. The Medics II writing course adheres to a weekly plan of objectives and is more comprehensive. It comprises work in the following areas: reading, oral presentations, summary writing, listening, vocabulary and essay writing using quotations. Summaries and essays focus on general, scientific and primarily medical topics. The length of summary and essay is a page, assessed by marking criteria based on percentages: 90-100 is an A; 80-89 is a B; 70-79 is a C; 60-69 is a D which is a pass; and below 60 is a fail.

Writing materials

The books used in the Medics I classroom are:

- 1- Pavlik, C., & Segal, M. K. (2004). *Interactions: Writing*. New York: The McGraw-Hill Companies, Inc.
- 2- *Writing Companion*: a booklet compiled by the ESP Coordinator.

Medics I English is divided into five levels. They are lowest, lower intermediate, intermediate, upper intermediate and advanced. Medics I students were asked to note their level of study at the time of study (January 10, 2006). Also, Medics II students were asked to note their level of English in the past year. At the time of the study, the levels had 48, 65, 55, 65 and 31 students respectively (see Figures 3-1 and 3-2 for more information about the participants).

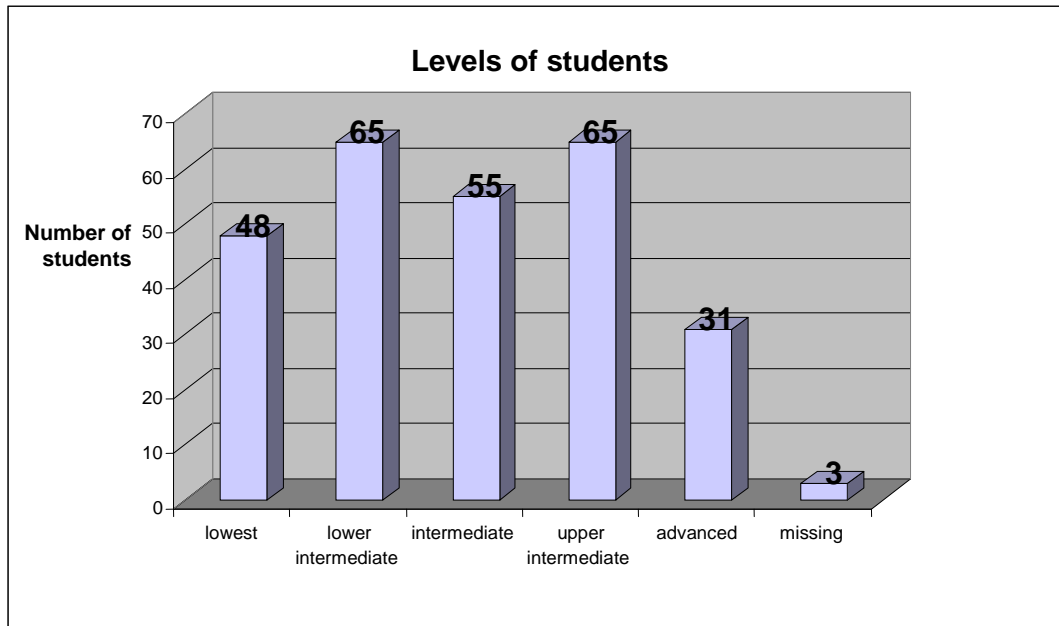


Figure 3-1: The distribution of Medics I and II students according to English levels at the time of the study.

3.4.4 Writing exams

Writing exams for Medics I comprise two parts: short questions and paragraph writing. The first part of the exams consists of short questions where there is strict marking on technical aspects such as sentence structure, grammar and spelling. The second part concerns paragraph writing. The English skills are assessed as an overall pass or failure. The Medics II writing exam consists of summary writing and essay writing. There are three types of exams (monthly, mid-term and end of term).

3.4.5 Writing activities and materials in Medics I English and Medics II English

The writing activities include general (i.e. non-medical) paragraph writing. In the second term, students use a writing compendium, which is based mostly on nucleus medicine. It covers a range of scientific topics which include: cells, body systems, blood types and medical instruments with language skills involving description, definitions and sentence construction. It is a collection of supplementary materials selected by the Medics II coordinator specifically for the students to improve and practise their writing skills. Students concentrate on paragraphs about general topics (for example, about family, oneself, and hobbies) by applying description, exposition and narrative writing. For Medics II, journal writing is required. Students write on topics such as 'Saudi Arabia Past and Present' and 'Compare Two Systems of the Body.' Summarizing, reading and writing skills are taught and are integrated. The articles presented to the students are taken from *Arab News* and the *Saudi Gazette*, as they contain updated research in Medicine.

3.4.6 Writing in the MB course

In the MB examinations, which are in English, students are expected to answer the first questions using short answers and short paragraphs. The essay questions require longer answers. Students are sometimes required to answer this type of question using a table or a diagram or in the form of notes. Basic and simple writing are required. For instance, the instruction might be: “*Draw a labelled diagram of the ear and describe how sounds pass through it.*” The marking is concentrated on comprehension of content and not on the writing. There are no MB writing activities. Writing is only expected in the mid-term and final examinations. Nor are students offered any kind of training in writing. However, there are sample exam questions in the MB study guide. The study guide provides a time-tabled topic list for lectures, tutorials, practical laboratory sessions and suggestions on how to study and perform better in exams. Moreover, there is virtually no cooperation between ELC and the departments regarding this. The teaching and assessment of MB is distinct from the ESP department.

3.5 Participants

Both groups, Medics I and Medics II, were selected. To get the maximum number of responses to the questionnaire 133 students from Medics I and 134 from Medics II were included. The intention was to maximize the number of responses to obtain the broadest

perceptions of students' writing needs. Medics I students were selected because it is relevant to know their perceptions regarding writing needs in their first year. Medics II students were selected because they had already been exposed to writing in the first year in both English and MB. Thus, they were able to give a more comprehensive picture of their writing needs.

For the semi-structured interviews, two MB teachers, two ESP coordinators of Medics I and II, and two ESP writing teachers were approached. The coordinators and teachers were selected because they had several years of experience in teaching ESP and MB. Table 3.3 itemizes the demographic profile of each of the nine participants interviewed in the study.

Table 3-2: Participants demographic information

	Participants	Degree of study	Educational background
1	ET1	BA/ MA: English Language	Saudi Arabia
2	ET2	BA/ MA: English Language	Saudi Arabia
3	EC1	BA/MA: TESOL	United States of America
4	EC2	BA/MA/Ph.D:English language/literature	Mauritius United Kingdom
5	DH	BA/MA TESOL	Saudi Arabia United States of America
6	BT1	BSc/ MSc/Ph.D	Saudi Arabia Scotland
7	BT2	BSc/MSc/Ph.D	Egypt
8	BC	BSc/MSc/Ph.D	Saudi Arabia United Kingdom
9	DM	BM/M /Ph.D	Saudi Arabia

For follow-up interviews with the Medics I and II students, 16 volunteers were sought, and selected respectively, based mainly on convenience. For convenience sampling, the researcher chooses from those to whom he/she has easy access. Such a sample does not seek to generalize or represent a wide population (Cohen, 2000).

The reason for these interviews was to gain in-depth perspectives regarding certain questions. The students ticked a box on the questionnaire if they were willing to be interviewed, with a space for their phone number. For ethical reasons, I approached only those who chose to be interviewed and respected those who did not. 16 interviewees answered positively, and I telephoned to arrange an interview.

Figure 3-2 shows the distribution of students studying in government and private schools. This is to show that there are more medical students who studied in government schools than private schools.

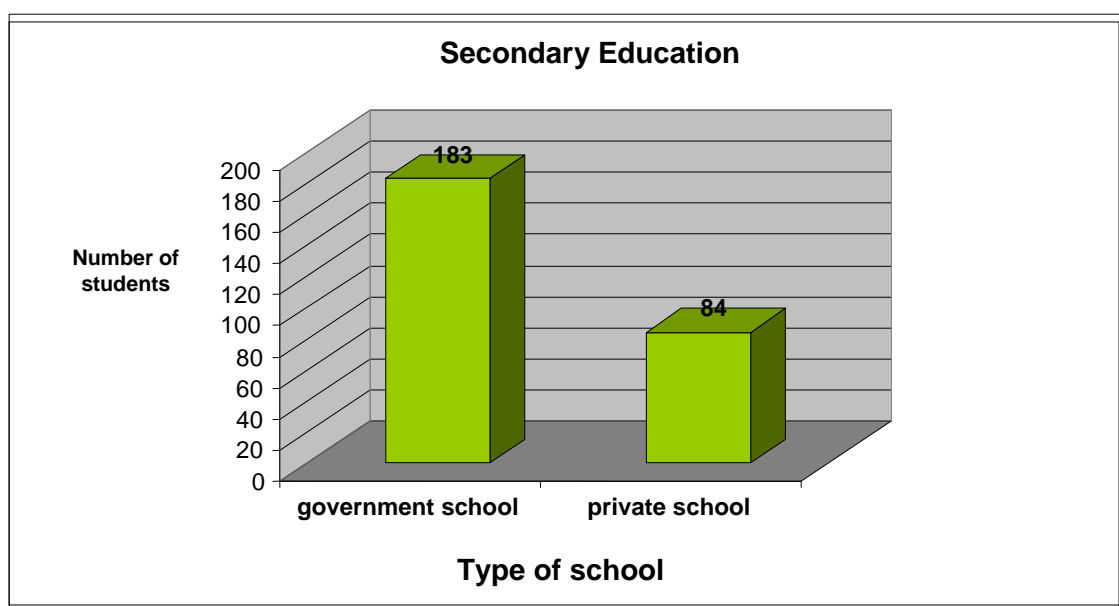


Figure 3-2 The distribution of medical students from government and private schools

3.6 Techniques of data collection

Questionnaires and semi-structured interviews were used in the study. Initially, there was an attempt at document analysis regarding MB exam papers. However, access was denied. This was because the exam papers were deemed strictly confidential and accessible only to the MB staff. Thus, the BC provided information about the different types of questions in the exams in the semi-structured interview.

3.6.1 Questionnaires

A questionnaire is effective for immediate distribution and getting immediate feedback; it provides anonymity for the respondent, offers the possibility of a high return rate and provides standardized questions (Munn and Drever, 1990). The advantages of standardized questions,

according to Bryman and Teevan, (2005) are that they promote standardization of both the asking and recording of answers. They reduce error due to variation in the asking of questions and provide greater accuracy in, and ease of, processing answers. Their results are often efficient to analyze (Wilson and McLean, 1994). However, Corbetta (2003) notes that questionnaires encourage superficial information to be collected from large numbers of respondents, rather than in-depth information from small numbers. Standardized questions elicit opinions but do not record the intensity of those opinions, and it is easy to produce unreliable or invalid information through badly planned questionnaires (Dornyei, 2003). Thus, the questionnaire was piloted in an attempt to avoid this problem.

A) Questionnaire Piloting

Fowler (1993) and Wilkinson and Birmingham (2003) point out that it is crucial to design the questions carefully to meet the research objectives, and to test them prior to conducting research. In this study, the main purpose of the pilot was to increase the validity and practicality of the questionnaire (Oppenheim, 1992). A pilot study allows commonly misunderstood or non-completed items to be addressed before the main study is undertaken (Verma and Mallick, 1999). Dawson (2002) emphasizes that it is important for instructions to be correctly understood and that re-piloting may be necessary in order to achieve more reliable results. Carefully testing and revising the questions can increase the responses.

Hence, a pilot study was conducted in May 2005. A formal letter was written to the DH of the ELC to negotiate access to the Medical students for the distribution of the questionnaires; an English language teacher was asked to enquire about the willingness of students to respond; a cover letter with a copy of the questionnaire and details of the purpose of the research was sent to the English teacher requesting permission to approach students; and the DH of the ELC gave permission. 40 Questionnaires were randomly distributed to Medics I female students. Generally, students did not directly refuse to answer the questionnaire although some contained missing answers. The questionnaire consisted of different types of question, as illustrated in Table 3-3:

Table 3-3 Types of questions.

Question Types	Number of questions
Likert scale questions	64
Dichotomous questions	2
Rank order questions	1
Open-ended questions	4

Different categories of closed questions were exemplified by two dichotomous, one rank order, sixty-four Likert-scale and 4 open-ended questions. The reason for including Likert-scale questions was specifically to test the students' varying perceptions regarding their writing needs. The dichotomous questions were used to derive factual, biographical data and to discover the English proficiency levels in Medics I English students and the identity of the schools (private or government) they had attended before University. One rank-order question was included to discover which aspect of writing they considered most difficult.

The pilot questionnaire showed it was unhelpful to include too many open-ended questions. A number of closed questions required further clarification and revision since some students did not answer them as they were unclear. These involved ticking more than one box. For instance: *'What do you dislike about the Medics I writing? Tick the sentences you agree with.'* This question may have confused the students for the majority left it, and only a few ticked some of the boxes. Another problematic question was the rank order question: *'Which aspect of writing do you need help with the most?'* Students were confused how to rank their choice. The majority left the question. Some wrote the same numbers repeatedly.

B) The final questionnaire version

The final questionnaire consisted of four A4 pages, divided into three sections. It included 56 questions. These are outlined in Table 3.5:

Table 3-5 The types of questions in the final questionnaire.

Types	Number
Dichotomous	2
Multiple-choice	4
Likert-scale	49
Open-ended	1

The questionnaire was designed to assess the perceived writing needs and problems facing students regarding materials, activities, instructions, exams, and the effect of English writing on MB learning. A sample questionnaire is attached in Appendix 1. The questionnaires were distributed in class during break in order to avoid disrupting lessons. They were given the opportunity to either consent to or withdraw from answering the questionnaire. Students were given about 45 minutes to answer the questionnaire. All 267 questionnaires were returned.

C) The design of the questionnaire

The design of this questionnaire is based on the works of Dudley-Evans and St. John, 1998 and Hutchinson and Waters, 2008, who defined needs in terms of target needs (i.e. what the learner needs to do in the target situation). Al-Khatib (2005) reports information can be gathered about needs through: questionnaires, interviews, observation, data collection e.g. gathering texts, informal consultations with sponsors, learners and others. According to Dudley-Evans and St. John (1998) and Hutchinson and Waters (2008), the best methodology for studying the target needs of any particular group of students/workers is to use such methods as questionnaires, follow-up interviews and collections of authentic texts. Al-Khatib (2005) further states that it is advantageous to use more than one of these methods, and the selection will obviously depend on the time and resources available. The target needs of the students are further divided into "wants" and "lacks" of the learners.

The data of the questionnaires was collected with the assistance of participants from both the ESP and MB department. In developing the questionnaire and the interview schedule, issues from the framework for analysing learner needs, based on the works of (Richards, 2001; Hyland, 2003; Hutchinson and Waters, 2008) were considered. However, the questionnaire was modified in a way so as to better serve the purposes of my study. The questionnaire was designed to elicit different perceptions from students regarding syllabus, materials, instruction, writing problems, activities, and the effect of English on MB. Moreover, Wilkinson and Birmingham (2003) emphasize the use of a cover letter in order to maximise responses, thus a simple cover letter was distributed with the questionnaire.

D) Questionnaire reliability and validity

Regarding the quantitative data from the questionnaires, validity can be improved through careful sampling, appropriate instrumentation and the statistical treatment of data (Cohen, *et*

al, 2000). Moreover, as Dane (1990) notes, presenting the questionnaire for consultation to people with expertise in the area can also increase its ‘face validity.’ This has been defined as a “consensus that a measure represents a particular concept,” and is called sometimes "expert validity or validation by consensus” (Dane, 1990, p. 262). In this study, face validity was established by asking two lecturers in the fields of Education and TESOL from the University of Leicester whether the questionnaire items measured what they aimed to measure. The questionnaire was modified in light of the lecturers’ comments. The students who took part in the pilot study were asked to comment on the clarity of the questionnaire, and to indicate any problems that they might encounter. There is space in the last page of the questionnaire for students to comment on the questionnaire. The questionnaire was revised according to the students’ suggestions.

Reliability

Reliability is concerned with the consistency of the measure. There are many ways to establish the reliability of a questionnaire. In this study, an alpha Cronbach's test was performed using the SPSS software. The findings are presented in Table 3-6:

Table 3-6 Reliability using Cronbach's Alpha

Questionnaire Items	Reliability check: Cronbach's Alpha
English writing syllabus	.688
MB writing syllabus	.809
English writing materials	.669
MB writing materials	.723
Writing activities in English	.730
Writing activities in MB	.809
The English writing instruction	.866
MB writing instruction	.836
Writing difficulties	.823
English Writing exams	.692
MB writing exams	.697

The reliability check reveals a minimum level of .669 (English writing materials) and a maximum of .866 (the English teacher). Though the reliability coefficient of .66 tends to be weak, there is research, nevertheless, which accepts these values (Youngman, 1979).

3.6.2 Semi-structured interviews

The aim of the interviews was to elucidate the underlying needs of students and teachers regarding writing. The reason for using the semi-structured format is its flexibility, and the opportunities it affords to analyse certain issues in depth (Edward and Talbott, 1999). In comparison, structured interviews would have provided no opportunity to probe for further information as they require simple answers such as yes/no, or the possible circling of a possible answer in a Likert-scale (Opie, 2004). However, an important disadvantage of the semi-structured interview lies in the nature of the process. Because of its flexibility and the level of human interaction required, the process can encourage subjectivity and bias. Subjectivity tends to apply when the researcher becomes too personal and not remain neutral. Bias is bound to be present to some degree during interaction between the interviewer and the interviewee and may affect the interview's validity of the data. There are times when the researcher unintentionally controls the interview with his/her ideas rather than giving interviewees the opportunity to express themselves. For instance, the question “*What problems in writing are you facing?*” could easily inform the participant of the kinds of problems there are, but one has to give the participants the opportunity to express themselves.

Thus, the researcher has to be aware of leading questions and constantly revise as well as pilot them before using them. Reducing susceptibility to bias requires more than simply formulating questions so that the meaning is clear. This may require thorough training procedures so that the interviewer is more aware of the possible problems (Cohen, *et al.*, 2000). In the final interview, I made sure that I took a neutral stance with all participants and actively listened to them to ensure that they gave a complete reply before going to the next question. Subjectivity is avoided. Listening carefully to replies allows one to probe other relevant issues.

A) Piloting the interview

Pilot interviews were conducted with two MB and two ESP teachers. It was necessary to approach the teachers personally, so I contacted them by phone and made an appointment. Accessing students and teachers posed some problems since they have busy schedules. I had to work carefully around their schedules. Before interviewing a student, an informed consent

form was signed, giving permission for the interview to be tape-recorded. Achieving neutrality while interviewing requires patience and self-control and allowing participants to express their views. But the pilot study provided me with the necessary practice in using questionnaires and conducting semi-structured interviews. After the pilot stage was completed, the interview schedule was modified with new and clearer questions that were more specifically applicable to the research questions. I also became aware of the time needed for analysing the data from both questionnaires and interviews, and the importance of high quality recording. Data needs to be carefully revised and considered before it can be interpreted. If data is read quickly, false conclusions may be drawn.

B) The final interview schedule

Two interview schedules were used in this study. An additional question was added: “*What is your opinion of the study guide used in the MB course?*” for Medics I students. In Medics I Writing there was no study guide distributed but one was provided for the MB course. I was keen to understand how a study guide could be used in the writing component, and considered that it might give students useful guidance on how to comprehend the writing component and realise the objectives of writing for specific purposes. The second interview schedule was for the ESP and MB participants, though some questions differed in the second part of the interview for the MB teachers.

The student interviews lasted for about 30 minutes while those for the coordinators, teachers, the DH and the DM took about 45 minutes. Appointments with students were made for the following day. Meetings with the teachers and policy-makers were also arranged in advance. The setting for all interviews was the teacher’s own office: free from distractions, so that respondents would feel comfortable, and express themselves freely. The interviews took place smoothly without interruption and students did not feel any sense of authority or formality since they appeared at ease and relaxed.

C) Semi-structured interview reliability and validity

To determine the interview reliability, Kvale (1996) notes the researcher has to validate the questions to be used both during the interview and data collection. As Denscombe points out, “Validity revolves around the accuracy of the questions asked, the data collection and its explanations” (Denscombe, 2002, p. 100). Thus, validity is a manifestation of accurate and authentic data throughout the research process. Therefore, in the interviews details of the transcripts were carefully revised to ensure accuracy and validity. Proving interview data

validity is often possible because it can be checked for accuracy during the process, in a follow-up interview or by respondent validation (Rubin and Rubin, 2005). By piloting the interview, validity is enhanced because questions can be refined, and the interview situation become more appropriate to the aims of the research in its future application.

Case-study validity is then validated through the triangulation of methods, questionnaires and semi-structured interviews (Fraenkel and Wallen, 1990). The use of multiple data collection methods (for example, interviewing, observing, and using a survey), known as methodological **triangulation**, enables the researcher to arrive at a conclusion based on sufficient evidence (Bryman, 1988). Creswell (1994) emphasizes that it is advantageous to a researcher to combine methods to better understand the concept being tested or explored.

3.7 Methods of data analysis

A. Quantitative data analysis

The data from the questionnaires was analysed using the SPSS programme. Mainly descriptive statistics were used. The mean, frequency, and standard deviation of the closed questions were obtained. Percentages of items were identified depending on which was the highest. To compare the perceptions of students in Medics I and Medics II, a t-test was performed (Borg and Gall, 1980). This is a statistical test designed to determine if the mean scores of two groups are significantly different. The test produces a value for t which is then checked to determine the level of significance. One form of this test (called the ‘independent means t-test’) can be used to compare the mean scores of two independent groups. An independent t-test was also performed to compare Medics I and Medics II student groups in terms of their perceptions of the items in the questionnaire.

B. Qualitative data analysis

Interpreting qualitative data can be a difficult task since unexpected responses are often received. The semi-structured interviews were tape-recorded. Some participants spoke solely in English and others spoke in a mixture of English and Arabic. I then translated into English the statements of those who had spoken in Arabic. All responses were transcribed.

Thematic analysis (Attride-Strling, 2001), was applied to both the data from the open-ended question in the questionnaire and the interview data from 25 participants. Although different authors have different ways of stating the steps of data analysis, the end result simultaneously conveys the same meaning. Significant characteristics of qualitative data analysis includes

three activities: data reduction, data display and conclusion drawing/verification (ibid). Attride-Striling (2001) notes that, data analysis follows the thematic analysis where consecutive steps are formed initially from basic themes, organizing themes and then finally to global themes. The basic themes are derived from the text, and then organized themes into basic themes that are centred and identified. By systematically examining concepts, themes and sorting the themes into appropriate groups, patterns and connections are obtained (Rubin and Rubin, 2005). Lastly, global themes are deduced where the principal meaning summarises the main point in the text (Attride-Striling, 2001). Dey (1993) states that when analysing data, one can acquire more than a description since one strives to interpret, to explain and to understand the data. Thematic analysis has helped me organize data into specific, modified categories and enabled me to develop a richer description of the data.

Nvivo software was also used. This is a computer-assisted qualitative data analysis software program (CAQDAS) which, according to Gibbs (2002), encourages an exploratory approach to analysis. The Nvivo software helped me in bringing together relevant text from 25 interviews more easily than if I had tried to manually cut and paste the material. Also, the node coding reports helped in categorizing, organizing the themes and presenting them clearly. Basit (2003) also notes that the Nvivo software helps in facilitating the labeling and retrieval of data which was quite helpful. She further notes that coding, an important stage of qualitative data analysis, is time-consuming when done manually, and it may require considerable time to become acquainted with the package. Ongoing reflection and detailed reading on the themes helped in interpretation of the data.

3.8 Ethical considerations

Respecting and protecting participants are of prime importance in research. While conducting the case study, the following ethical issues were considered: informed consent, privacy, anonymity and confidentiality (Neuman, 1991). The purpose of the study was explained to the participants and informed consent was obtained. The study's participants were made aware of their rights before they read and signed consent statements (Nachmias and Nachmias, 1996). In addition to granting respect, this process has been shown to build confidence in informants. Similarly, the 267 students who participated in the questionnaires, were asked verbally whether they wished to participate or not in the questionnaire.

3.8.1 Ethical issues in questionnaires

From the initial stage of the questionnaire, ethical issues were considered (Cohen *et al.*, 2000). A brief description of the proposed research was given to the students, either by letter or verbally (Burton, 2000). As is common practice, a cover letter was included giving the name of the department on whose behalf the survey was taking place, the purpose of the questionnaire, and the details about the confidentiality of participants (Munn and Drever, 1991; Dawson, 2002). Informed consent was granted and the participants agreed to cooperate in the pilot questionnaire. The respondents had the right to withdraw at any stage (Cohen, 2000). A letter explaining the purpose of the study and a copy of the questionnaire was sent to the DH to gain consent for questionnaire distribution.

Verbal and written consent were sought from the lecturers and heads of departments and an effort was made to ensure that the information from these participants was treated confidentially because protection of their privacy is important invasion of it would be inappropriate (Pring, 2000). A form was distributed to the students as well as to the teachers for signing. Obtaining permission from authoritative figures requires time, and needs to be considered with regard to research schedules (Denscombe, 2001). For example, I had difficulty meeting the DM due to time constraints. I also had difficulty in accessing MB examinations since they were strictly confidential. Eventually, the MB coordinator informed me of the types of questions asked in MB exams.

3.8.2 Ethical issues in the interviews

Punch (1998) argues that ethical issues tend to arise more in qualitative approaches since they deal with sensitive matters in people's lives. The researcher, as Kvale (1996) and Keats (2000) both point out, has a duty to respect the rights of the participants by ensuring ethical values are applied throughout the research. In the interviews with the students, informed consents would be obtained, and the research objectives of the study were clearly explained. Verbatim transcriptions of the interviews were presented for respondent validation to some of the participants to confirm accuracy (Rubin and Rubin, 2005). Some transcriptions were shown to the participants since most of them were busy. To ensure confidentiality, pseudonyms were used for the student interviewees, and personal details of the participants were noted only with their permission (Denscombe, 2001). For ethical purposes, while referring to the academic staff, this study uses the participants' job positions instead of their actual names. Table 3-7 indicates the acronyms adopted in this thesis.

Table 3-7 Acronyms of the participants' job positions

ESP Department	MB Department
ESP Coordinator 1= EC1	MB Coordinator =BC
ESP Coordinator 2 = EC2	MB Teacher 1=BT1
ESP Teacher 1=ET1	MB Teacher 2=BT2
ESP Teacher 2=ET2	
DH of the ELC=DH	Dean of Medicine =DM

An important issue in qualitative interviewing is bias (Dane, 1990; Cohen, *et al.*, 2000). Minimizing its amount may be difficult. This is due to the subjective nature of interviewing (Bryman, 2001). Bias can manifest itself in the tendency of the interviewer to find answers that support his predetermined ideas. The difficulty is that leading questions may be necessary in order to obtain information that the interviewer suspects the interviewee might be withholding (Kvale, 1996).

Two important concepts in this study are *insider researcher* and *outsider researcher*. The insider researcher is someone who has worked on or is "familiar and informed about the setting of the study, while an outsider is someone who is unfamiliar with and uninformed about the setting" (Griffith, 1998 cited in Mercer, 2007, p.3). Labaree (2002) notes that the challenge is to take advantage of the privileged access of being an insider, while simultaneously resisting confinement within a given role as a researcher. Labaree (2002) argues that the researcher should be objective as much as possible rather than subjective. Having worked in the ELC, I am familiar with the context and being an insider researcher of my study. This made accessibility to the teachers and students manageable. There is a sense of comfort working in a familiar environment.

The disadvantages of being an insider researcher are further explained by Labaree (2002) and Mercer (2007). Mercer (2007) argues insider researchers usually have considerable credibility and rapport with the subjects of their studies, a fact that may engender a greater level of candour. Hockey (1993) claims that insider researchers may enjoy easier access and greater rapport but they also have to contend with the fact that their informants have known them longer, and have had more time to form preconceptions about them and their research. Mercer (2007) adds that because the insider has earlier preconceptions of the participants this may affect their responses; thus the researcher needs to make a conscious effort not to voice

opinions until the completion of the research. This could be done by avoiding leading comments and words.

This view is similarly shared by Holstein and Gubrium (2003) who suggest that interviewers are generally expected to keep their views out of the interview process. Labaree (2002) notes that the challenges of insiderness within professions is in need of further consideration. The disadvantages are informant bias, interview reciprocity and researcher ethics. There are two which take particular significance. First, there is the issue of what to tell colleagues, both before and after they participate in the research. The dilemma is particularly sensitive when interviewing one's peers where conscious decisions are required by the researchers not to get influenced by their topic and allow preconceptions to develop among their peers. Decisions have to be formed on a clear, neutral basis as if the participants are not one's peers. A second ethical dilemma for the insider researcher concerns the use of incidental data (Griffiths, 1985). Griffiths (1985, p. 210) describes how she chose not to use material from informal staffroom chats, or meetings with restricted access because the collection of these data had not been negotiated: "To release such data would be a betrayal of trust and an abuse of access." Campbell (2002) felt somewhat the same, preferring to use only data from direct personal conversations, rather than anything he overheard by chance.

3.9 Summary

This chapter has discussed the methodological issues of this study which is based on an interpretative/positivist paradigm which equally draws on both qualitative and quantitative methods. It aims to achieve reliable data through the triangulation method (using both questionnaires and semi-structured interviews). The interpretive/qualitative method helped to produce an in-depth view of teacher collaboration and students' writing problems from the ESP/MB participants' perspectives, while the positivist/quantitative method helped gather significant data from a substantial number of students regarding their writing needs. I employed a descriptive/exploratory case study as the research approach with an emphasis on Medics I and II students (267), 3 coordinators, 4 teachers, the DH and the DM. Informed consent was obtained and pseudonyms were used for the participants due to ethical considerations. A pilot study (May 2005) was undertaken before the actual field work (January 2006). The interviews were tape-recorded and analysed manually and also using the Nvivo software. Questionnaire data was analysed using SPSS software. The interview schedules were revised and piloted to enhance validity and reliability. The next two chapters present the findings of the study with regarding students' writing needs viewed by the ESP/MB participants and also an exploration of ESP and MB participants' views towards teacher collaboration.

4 STUDENTS' PERCEPTIONS

4.1 Introduction

This chapter discusses issues of writing from students' perspectives. Their main concerns are categorised into 'wants' (see 2.7) which include their perceptions and expectations regarding the following items: writing, syllabus, materials, instruction, activities, exams, and the effects of English writing on the students' performance in the MB course. The 'lacks' are considered the difficulties when they write (see 2.7). Percentages and independent t-tests are used to discover any significant trends in the data. Analysis of the questionnaire data in the form of descriptive results with the support of semi-structured interviews are presented. The triangulation method used is shown to be particularly useful when the responses obtained from the questionnaire are neutral. The findings are finally reviewed critically in relation to past literature.

4.2 Students' "wants" in writing

The following discussion of the results is based on the first research question: 'What are the medical students' needs in writing?' The term 'needs' encompasses 'wants' (see 2.7). One of the items in the questionnaire required the students to identify what they would like to help them write better. The aim was to discover which specific writing skill these medical students need to improve their written English. Over one third (38%) identified writing skills; nearly a quarter 25% more writing practice; 14% effective writing materials, and 11% clear writing instruction. 12% were missing values. The following graph Figure 4-1 illustrates the percentage of responses of the following items which the students believe they need the most.

Figure 4-1 Students' writing needs

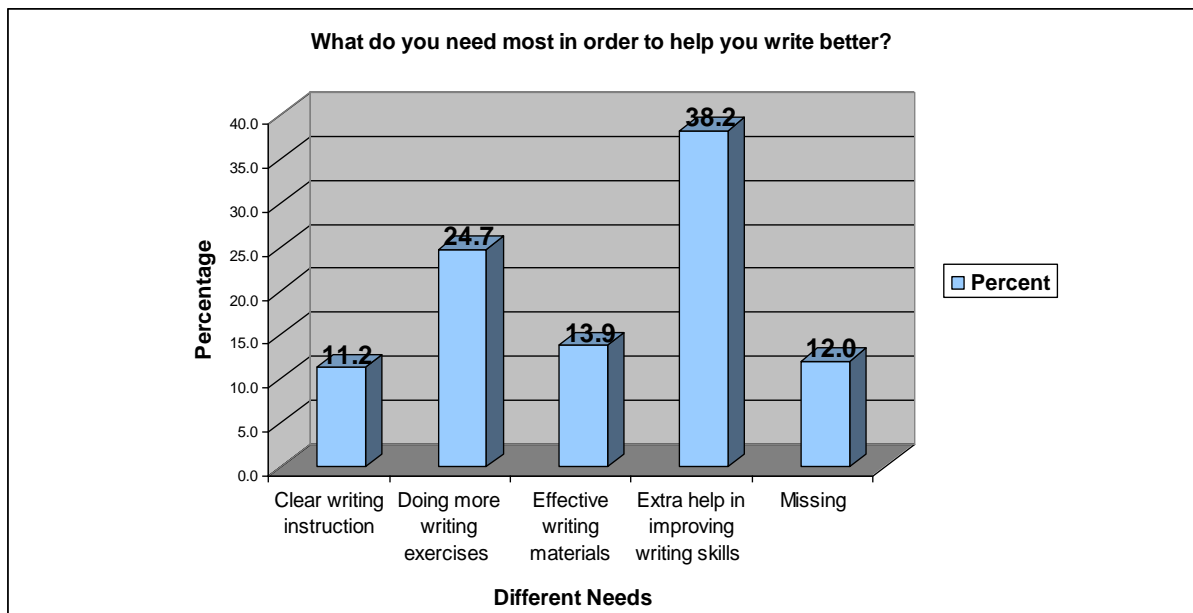


Table 4-1 A comparison of Medics I and Medics' II needs.

	Needs				Missing	Total
	Clear writing instruction	Doing more writing practice	Effective writing materials	More help with writing skills		
Medics I	11.3%	22.6%	16.5%	39.1%	10.5%	100%
Medics II	11.2 %	26.9%	11.2%	37.3%	13.4%	100%

Table 4-1 shows that Medics I and Medics II students have similar writing needs. Both groups identify writing skills as a top category in which they want more help. Similarly, both groups identify writing instruction as an area in which they need less help. However, the two groups seem to be apart with regard to writing material and writing practice. This is consistent with the some of the interview findings.

The questionnaire findings reveal that most of the students would prefer writing practice (see Figure 4-1, p.68). Yusra 1 noted:

Extract 1

- 89 *There should be more concentration on writing, more practice. They should*
90 *tell us what is wrong and make us practise. The teacher did not concentrate*
91 *on teaching us the way to write since the teacher expects us to know.*

This result may imply that time constraints could be a significant factor in impeding students' writing ability. Because of this, teachers may not be able to give sufficient attention to the skill of writing. Since writing is a combination of vocabulary, grammar, spelling, sentence structure and mechanics, students may need more time to acquire these skills. Time limitation also restricts the teachers from providing extended writing practice (Leki and Carson, 1994). The problem may be tackled if the students share responsibility and practise independent writing outside the classroom setting. Nonetheless, consistent supervision and guidance from the teacher is still needed.

The questionnaire data also demonstrates that effective material is another factor in developing students' writing skills. 14% of the students claimed that they needed effective materials which are innovative and motivating. The materials used in the classroom are solely related to scientific topics and, as pointed out by one of the interviewees, "*there should be more general topics, everyday topics, so it could be more interesting.*" (Lujain II) 11% of the participants indicated a preference for clear writing instructions. This suggests that most of the students are quite content with the present level in their courses. Writing instruction appears to be almost similar for the students. The interview results are also consistent with the questionnaire results. Almost all interviewees noted that their existing writing instructions were satisfactory. Only one among sixteen students stated that writing instruction was unclear and there should be more explanation. Rawan II points out:

Extract 2:

- 13 *I want to improve myself in writing. However, I could not get clear instruction*
14 *from my teacher... I give her the essay and she corrects it. Then, it comes back*
15 *with many mistakes. I feel I can not get a clear explanation from my teacher.*
20 *She does not clarify the right explanation. I wanted to learn from my mistakes.*

Because of their lack of training in the teaching of writing, teachers may also not be aware of more effective ways to teach writing such as providing better feedback. The data from the interviews also reveal that there are five recurrent themes stated by the respondents: (i) writing practice (ii) reading (iii) grammar assistance (iv) spelling practice and (v) vocabulary. The first four points are dominant among both the Medics I and Medics II students. In contrast, only Medics I students cited the need for extended grammar exercises. None of the

Medics II echoed this view. A wider vocabulary was also perceived as important by Medics II students while no Medics I expressed such a need.

4.2.1 Writing practice

Some interviewees noted that they needed assistance with writing skills and practice. However, the types of guidance required differ. Some students prefer to have more practice in scientific writing to cater for their academic needs as voiced by Ayat I: *"I need more practice in the scientific way of writing. In the MB exam, I started to write the essay. I feel my writing is not scientific at all."* Alternatively, there are students who prefer to have general writing exercises to help stimulate appropriate reactions and expressions. As pointed out by Layla I, *"I need more practice in expressing myself instantly in writing."* This finding exhibits similar characteristics to Anderson's model (see 2.2.1). There are also students who seem to think that scientific writing is different from general writing and it might be difficult for them to grasp how to write scientifically and become aware of the scientific genre in Medics I and Medics II coursework. The respondents also suggested that writing practice would be more successful if it were combined with motivating instruments such as computers. As highlighted by Ameerah I:

Extract 3:

13 *I need more training in writing...I think when we go to computer labs, it makes me*
14 *write better...The teacher gives us writing to practice...The words are retained in*
15 *our minds when we perform activities and practice in writing. Also, the writing*
16 *activities are enhanced using the computers.*

This finding is in line with the views of Ybarra and Green (2003) and Nelson (2000) who claim that with the advance of technology, the effective use of computers especially, the right software and the use of graphics can also help language students develop their writing skills.

4.2.2 Reading for different schemata

The need for more reading in order to generate ideas is a recurring theme among both Medics I and Medics II respondents. They feel that reading more will provide them with new ideas and build their schemata for different issues. This finding is consistent with Strott's (2001, p.1) claim that schema theory is "the process by which readers combine their own background knowledge with the information in a text to comprehend that text." Carrell (1988, p. 2) also proposed that some students' reading problems may be due to "insufficient background knowledge." With better background knowledge (content schemata), these students will have

more ideas of what to write about. A similar view was also expressed by Haneen: *"We need more practice in reading, more reading. It is a very important skill by allowing us to look deeply for ideas and topics."* Another student agreed: *"We need to read more from different sources. For instance they should give us not just reading medical books or medical topics but maybe a novel or a short story."*

This reading exposure may enhance their general knowledge and motivation rather than focusing solely on medical topics. It may prompt an awareness among the students of the need for their General English to embrace a variety of topics to help them expand their imagination and generate schematas of other reading genres. Eisterhold (1991) agrees. He claims that reading in the writing classroom is a necessary input for the acquisition of writing skills because reading passages provide main models (formal schemats) from which writing skills can be learned. Gordon (2008) points out that good writers read: it helps build the rhetorical structures and vocabulary required to express ideas for a specific purposes (see 2.1.1).

4.2.3 Grammar

The results reveal that students feel the need for more extended work on grammar in order to improve grammatical knowledge. Hinkel (2002) has reported that most L2 students have problems with learning grammar. According to Ryan (2005), the formality of the education system of Arabic speaking learners of English has focussed on traditional drills and written exercises. The errors which they produce in English could be the cause of the influence of their first language (see 2.1.2).

These studies revealed that most of these students have difficulties in dealing with simple tenses and parts of speech. Similar views were also expressed by the students in this current study. Sireen I noted *"I need more classes in grammar and spelling. For instance, I get confused with had and have."* The problem of using appropriate tenses in writing is problematic for most Medics I and II students. Nonetheless, some of the students proposed strategies to overcome their problem of limited grammar knowledge. For instance, Maram I suggested that

Extract 4:

- 21 *It is important really to go and watch a program on video to concentrate on the*
22 *tense of actions and learn how to use them. The actions of the movie draw our*
23 *attention more than the tenses. It is important to know the grammar clearly when to*
24 *use it in the research project or in the lab.*

These responses may be explained on the basis that three students believe that audio visual aids such as a video, will help. It is possible to suggest that such students may subconsciously form schemata for grammar so that they can apply the rules of grammar in writing. This may be difficult to achieve since schema information may require and involve much practice. Carrell (1988) offered examples of how relevant schemata may be constructed. He suggested including in the course of lectures, visual aids, demonstrations, real-life experiences, discussion and role play. Though he made these suggestions specifically to help reading, it is arguable that such activities could be applied in building relevant schema for grammar because putting grammar into a real-life context is likely to help the students grasp the rules. With practice, they may then be able to apply them in their research or lab work, orally or in writing. One possible reason for students facing grammatical problems is that their teachers may not have the necessary communication skills to serve as a model. Another is the students' inability to understand the complex grammatical rules they are taught.

4.3 Students' 'lacks' in writing

In the questionnaire the 267 participants were asked to rate themselves on the 'lacks' they encounter when writing. They were asked to rate them on a four- point scale (Always=1, Often=2, Sometimes=3, and Never=4). Table 4-2 shows the averages of the perceived writing difficulties ranked from the most difficult to the least difficult.

Table 4-2 Students' perceptions on writing difficulties

Writing difficulties	Always	Often	Sometimes	Never	Mean	Rank
Using appropriate vocabulary	19%	29%	42%	8%	2.40	1
Using correct spelling	14%	32%	43%	9%	2.48	2
Applying grammatical rules to writing	18%	27%	43%	12%	2.49	3
Expressing ideas in writing	21%	20%	40%	17%	2.53	4
Summarising writing	17%	28%	39%	15%	2.54	5
Establishing cohesion in writing	14%	27%	39%	18%	2.62	6
Understanding writing instructions in MB	14%	18%	40%	26%	2.79	7
Forming sentences	10%	18%	45%	25%	2.87	8
Understanding instruction about English writing	12%	15%	38%	34%	2.96	9
Revising your writing	9%	15%	38%	35%	3.00	10
Using correct punctuation	3%	10%	55%	32%	3.09	11

The data demonstrates that the skill in the writing process perceived as most difficult is using appropriate vocabulary. The next most difficult skills are using correct spelling and applying grammatical rules. There is a high percentage of 'sometimes' for most items. This suggests most students experience these difficulties. The interview results are also consistent with the questionnaire data. Common themes emerged from them which can be broadly categorised into spelling, vocabulary, grammar, forming ideas, the use of connectives, sentence construction, paragraph development and time limitation. The results show that the nature of writing difficulties is listed in the order of frequency. This study has similar problems to those identified by Khan (1999). Khan discovered that spelling accuracy, the breadth of vocabulary, applying grammatical rules and conceptualisation are also dominant problems among Bangladeshi higher secondary schools students. The interviews also demonstrated that having no ideas was the most frequently cited problem by the students. This may be linked to 'past training' as these students were not taught to think for themselves and had an over-dependency on teachers. In Khan's questionnaire data, 'ideas' turned out to be the most significant problem after summarising and establishing cohesion in writing.

4.3.1 Vocabulary

Based on my data, restricted vocabulary emerged as the most problematic area in the questionnaire and in the semi-structured interviews. Most students noted their difficulties with vocabulary because they were inclined to practise the habit of memorisation of certain vocabulary for examination purposes due to time constraints. Due to their limited vocabulary, the students were afraid of misspelling words (see extract 5) that could impede their writing ability and compromise their results in the examination. As pointed out by Rehab I:

Extract 5:

5 *Vocabulary is so difficult. I can not memorise any vocabulary because of the stress*
6 *of the exams and due to time constraints. Also, I am afraid to write words because of*
7 *the wrong spelling. Then I will lose grades.*

The data above overlaps with similar problems in the questionnaire data. Due to their impoverished vocabulary, most students are incapable of writing with the desired level of fluency. Thus, there is a need for dictionaries. As Tala mentioned: *“Actually, I do not have much vocabulary. I can't write. I always need a dictionary. I do not know many words and I don't know how to use them”* (Tala 1). Furthermore, according to the students, to use the correct vocabulary appropriately poses another difficulty. The difficulty lies in having to use subject-specific terms in writing and knowing how to connect them in the sentences. For instance, the word “cardiac” means heart, but the word may become cardiologist, cardiology which give slightly different meanings. The addition of affixes to the word changes the meaning. Maram I stated: *“The problems lie only in how to organize, how to use the [medical] terms and how to connect them in the sentence.”* Hence, there is a need for guidance to apply the correct vocabulary in writing. Layla I noted that *“I need more vocabulary to write.”* She, and others, may not have sufficient vocabulary to form sentences, or sufficient to acquire sufficient vocabulary.

Previous literature, such as Fageeh's (2003), indicates that vocabulary is the kind of common problem faced by second language learners, which may cause apprehension in their writing. Grabe and Kaplan (1996) and Hill (1986) also claim that L2 writing difficulties may involve a limited vocabulary. These problems may stem from insufficient professional instruction. Al-Mutawa and Al-Kailani (1998) claim that learning vocabulary is a complex process which demands efficient and sufficient practice of form, meaning and usage (see 2.1.1).

4.3.2 Spelling accuracy

The study demonstrated that correct spelling is another difficulty in writing. Most students reported problems in spelling. This could imply that they tend to become confused with certain letters and sounds in the target language. The interview data pinpointed correct spelling as a major difficulty in writing. Layla I noted, *“The biggest problem in writing is spelling.”* Noor II noted that she worries about spelling since she gets confused with certain letters. It has been revealed that English spelling is often difficult because the relationships between sounds and letter symbols are less regular than those in many other languages (Kharma and Hajjaj, 1997; Gordon, 1998) (see 2.1.1).

4.3.3 Applying grammatical rules in writing

Extract 6:

- 5 *My problem is that I did not know how to apply the writing rules of English.*
6 *For instance, there is the Arabic grammar and the English grammar. I am not*
7 *aware of the grammatical rules of writing in order to make my writing perfect.*
8 *We do not know how. I did not understand the grammar. (Aliya I)*

This transcript illustrates that Aliya I experiences consistent difficulties with grammar. Her previous experience of grammar mostly involved extensive memorization of rules and her lack of understanding of grammatical rules obviously does not help her to write effectively. As already stated this may result from past teaching methods in high schools and insufficient practice in grammar. Grammar in high school is mainly focussed on filling in blanks with the correct verb (see 4.2.3).

4.3.4 Lack of ideas

Students find composing in English difficult because the writing process demands certain strategies. Students who are not used to thinking independently may find it difficult to conceptualise ideas since most of the time the teacher determines the issues in the classroom (see 2.1.1). Thus, students lack learner autonomy. They are passive learners in a teacher-centered classroom (Field, 2007). Indeed, five students complained that they lacked ideas and could not think of anything interesting to write. Sawsan II notes: *“I am not a heavy reader, and that is why I don’t have ideas. I do not know what to write.”* Because students are often not used to thinking and developing ideas, they would benefit from guidance to develop their self-confidence and belief in their ability to write. Students are often unable to deal efficiently

with either academic or common everyday topics (Mukkattash, 1983). One possible reason for students' inability to have ideas is due to their limited general English reading and insufficient conversation practice outside the classroom. According to Carrell *et al.*, (1988), the more exposure learners have to a target language, the more ideas they will develop. This kind of schema could be presented in the form of visual aids or reading stories and may be called formal schemas (Field, 2004).

4.3.5 Using sentence linkers

Connecting and combining sentences has proved difficult for these students. As Maram I noted: *"The problem lies... in how to connect the sentences."* This finding is linked with that of Crewe (1990). Dubin and Olshtain (1980) also found ESL students experiencing problems with using connectives (see 4.3.5). She may need to be trained in how to apply connecting words between the sentences. As Noor II stated: *"I do not know how to use [sentence linkers] like subsequently..."* Furthermore, she adds that: *"There are certain words which we use in the beginning of a paragraph. Sometimes I use it in a wrong way. Using words such as however is a problem."* Noor II noted that: *"I have a problem with moving from paragraph to paragraph. I do not know how to use introductory words."* The basic problem occurs when the students wish to start a new paragraph when they have to focus on a different idea. Their problem is not knowing how to apply introductory words. Teachers need to remember that many students might find this difficult. Kharma and Hajjaj (1997) noted that Arab grammarians do not distinguish between coordination and subordination in the same way as English (see 2.1.1). This finding is consistent with Doushaq's study (1986). Jordanian Arab students at university level faced difficulties with poor sentence construction skills such as incoherent sentences and the wrong use of connectives such as "whether" rather than "however." Weaknesses in ESL writing are also due, to some extent, to their poor mastery of Arabic writing skills (Doushaq, 1986).

4.3.6 Writing whole texts

Writing whole texts proved to be a problem for some participants. Aliya I and Noor II found it difficult to develop whole texts. Aliya I noted:

Extract 7:

- 14 *I am aware there is the introduction, a body and a conclusion. We just memorize. I do*
15 *not know how to do these things. We did not practice how.*

Aliya I has declarative knowledge of writing an essay, but is unable to apply it (see Anderson's model, 2.1.2). Aliya I also says "*we just memorize.*" Two other students, from Medics I and II blamed memorization in the government schools for their weakness in writing. Some interviewees linked the weakness in writing with the methods of teaching in the government schools. "*All our lives we are used to memorizing.. So we memorize and write whatever we memorize (Maram I).*" The extract below illustrates the problems encountered in government schools regarding the teaching of writing.

Extract 8:

5 *The problem we face is that we studied in the government schools. It is not the*
6 *same as private schools they do not concentrate on English...In the government*
7 *school, English is considered as an unimportant subject. We take grammar and*
8 *vocabulary, we memorize...In writing, we are very bad, since there was no*
11 *concentration on the writing. There was no concentration on the writing skill*
12 *while I was in my final year of high school, and they did not pay attention to*
13 *grammar. They did not give us any advice (Heba II).*

Consistent with Fageeh's study (2003) in which he indicated that Arab participants encounter writing problems in high schools where exposure to writing is limited and students are only required to write a few sentences in the final exams. Many students have found a major gap between what they learned in public schools and what was required of them at the university. It is vital to note that some students who were interviewed indicated that among their writing problems was that of time constraint. Heba II and Maram I were two who noted that they needed more time to reflect and organize their ideas. They also blamed the way they were taught in the past.

4.4 Perceptions towards other areas in writing

In the questionnaire, the questions were presented in the form of a closed Likert scale. Students could select from the following options: strongly agree=1, agree=2, neutral=3, disagree=4, strongly disagree = 5.

4.4.1 Writing syllabus

The students were asked to rate on their assessment on several aspects of the writing syllabus. (1 and 2 were added to test an estimated measure of agreement; 4 and 5 were added to test an estimated measure of disagreement).

Table 4-3: Student perceptions of the English and MB writing syllabus (lower rating indicates more positive perception)

(1=strongly agree; 2=agree; 3=neutral; 4=disagree; 5=strongly disagree)

	Perception	English writing syllabus					MB writing syllabus				
		1	2	3	4	5	1	2	3	4	5
1	... is clearly explained by the teacher at the beginning of the semester	44%		19%	37%		32%	24%		43%	
2	...has a clear objective.	32%		32%	35%		42%	23%		33%	
3	...clearly states the learning goals.	30%		28%	41%		40%	26%		32%	
4	...is relevant to the needs of the students	65%		16%	17%		68%	17%		15%	

Table 4-3 shows that 44% agree that the English writing syllabus is clearly explained in comparison to 32% for the MB writing syllabus. For the MB writing syllabus, around 40% agree that it has clear goals which means that the majority are either neutral or feel that the goals lack clarity. 41% students disagree that the English writing syllabus clearly states learning goals, but 40% agree that the MB writing syllabus clearly states learning goals. This is an indication that there are more students who disagree that learning goals in English writing syllabus are clearly stated. In support of this finding, Hyland (2002), notes that identifying learning goals in the writing syllabus is significant. As for the relevance of writing to the needs of the learner, most students share similar perceptions of the English and MB writing syllabus.

In the interviews, two students said that they did not know why they needed to learn how to write in English. Maram I noted *“In the English class, we do not know what is expected of us to write.”* Similarly, Haneen II stated:

Extract 9:

- 90** *We are lost in grammar and writing. We do not know why we learn. All of them*
91 *say we waste time for English classes, most of us skip the English classes. The*
92 *objectives of the English class are not clear.*

Most Medics I/ II students reported that there were unclear objectives for writing, and the objectives for English writing were based on their future professional needs. They felt confused about the objectives, but were motivated about improving their written English standard since this would be of use in their future professions. Noor II and Layaan II highlighted the benefits. Noor II notes it would be advantageous: *“For our future, for clinical work and writing a case history for future purposes.”* Layaan II added: *“Yes, the teachers Mrs. Halla and Mrs. Hana note that the objective is to improve the quality in writing, to be a*

good doctor so [one] can write a clear report of what [one] did exactly and to be clear in everything."

Next, the students were asked about the use of a study guide in MB and English. The responses indicate that the use of a study guide in MB was helpful to some students. Rehab I stated:

Extract 10:

73 *"I feel the study guide is useful. There is the main vocabulary of the chapters. Also,*
74 *it is organized, and the questions we want to ask the Doctor is found here."*

It provided clarification of the syllabus, model exam questions and encouraged important queries to be made of the doctors. However, six of the students did not find the MB guide useful. They thought it was disorganized while three students found it useful because it gave them guidance, other students offered no opinion on it. Nevertheless, similar student guides are often noted as important resources for student learning (Duchastel, 1983) (see 3.4.6). The guide proved useful for Rehab since any queries regarding the content in the MB course that she might have wished to ask the MB instructor were found in it. Layla I and Alia I both noted that the guide also provides useful internet links. Five students would prefer the use of a study guide in English since it would be a useful source of information for them. The rest of the students had no views about the contents. They had, however, heard about the guide. Only two of them thought it unnecessary and unimportant. Ameera I was one. She said: *"There is no need for a study guide [for English] since the English course is organized."* However, Sawsan II noted: *"The study guide may be not useful for me, but others do ask how can we study?"*

4.4.2 Writing materials

Students are exposed to different kinds of writing materials in the course of their studies (see 3.4.3). Table 4-4 shows the outcome of students being asked about their perceptions regarding the writing materials used in English and MB:

Table 4-4: Students' perceptions of the writing materials in English and MB (lower rating indicates more positive perception)

	Perception	English writing materials					MB writing materials				
		1	2	3	4	5	1	2	3	4	5
9	... are motivating and interesting	12%		20%	67%		22%		27%	38%	
10	... are comprehensive.	20%		27%	51%		32%		29%	38%	
11	...are related to the Arab context.	23%		30%	46%		17%		36%	47%	
12	...develop writing skills.	35%		21%	43%		27%		22%	51%	

Table 4-4 reveals that 67% of the students disagree that English writing materials are motivating and interesting. 38% of them disagreed that MB writing materials are motivating and interesting. Similar results can be observed with regards to the comprehensibility of the writing materials in MB and English. Table 4-4 shows that 46% of the students think that the English writing materials are not related to the Arab context, and this also applies to the MB writing materials. Similar findings are revealed in relation to the role of writing materials in developing writing skills with 35% of the students stating that English writing materials do develop writing skills and 27% stating that MB writing materials do so as well. This suggests the need for materials with a focus on writing.

In the open-ended questionnaire regarding the effect of MB on English writing, one student suggested a change of materials: *"I wish that the subjects in the books in general and deal with life's ways in other than the western world's."* It is interesting to note that the respondent prefers the materials to deal with life's issues in a non-Western context perhaps Arab. She prefers general topics that would help her to communicate and deal with life on a daily basis. Another informant notes: *"English subject talks about medical topics, but it requires general topics and conversation subject until now I am not able to converse with my teachers."* Question 9 of the questionnaire asks about students' perceptions regarding whether materials should be linked to the Arab context or not. One-third (30- 36%) of the students gave neutral answers to both. There is a possibility that they hesitated to answer this question, but simultaneously wanted their opinion to be heard. This may be due to the reserved nature of Arab culture, as Arab students are not used to voicing their opinions: education has always been teacher-centred in high schools, and students are hesitant to voice individual opinions especially in a controversial western context.

Question G asked: ‘What kinds of text do you think should be used extensively in an English writing class?’ The students were offered four alternatives: general English topics; functional writing (for example: filling out applications, writing letters and curriculum vita; MB-oriented texts; and texts on medical topics.

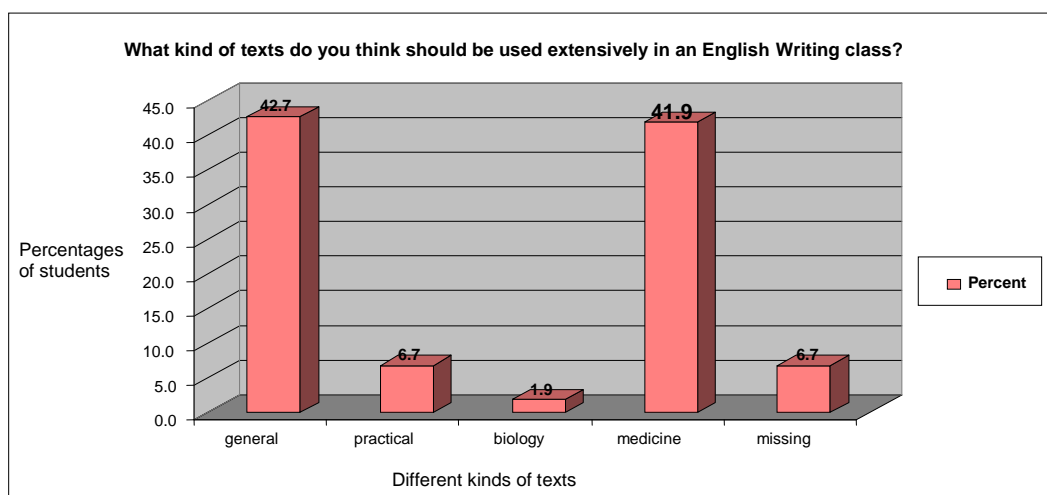


Figure 4-2: Most useful types of text for English Writing class for Medics I and Medics II students

Figure 4-2 shows that 43% preferred general texts, while 42% preferred medical topics, only 7% preferred practical and 1.9% MB texts respectively. This suggests that students are not keen on having specifically MB texts in the English class. However, the percentages for both Medical texts and general texts are closely linked. To cope with studying in an ESP setting, students need exposure to more general English texts.

One reason why so many student prefer general topics might be that in the government schools, there is limited exposure to books and resources. Supporting the students’ need to study general topics, Lujain II said:

Extract 11:

115 *There should be group activities and not everything related to medicine. ...Reading*
 116 *should not involve only medical topics but different topics...Topics may come from*
 121 *magazines. IGCSE articles for instance should be interesting such as like when you*
 122 *walk into the supermarket and smell the bakery (Lujain II).*

Lujain II yearns for group activities which are not related mainly to Medicine. She is a student familiar with the IGSCE (International General Certificate of Secondary Education), which is derived from an IGSCE syllabus used in the secondary school curriculum in the United Kingdom. This may imply that she has been taught in a private secondary school where the

materials are usually updated by teachers who are fluent English speakers rather than by local teachers whose command of English is weaker as is almost always the case in government schools. A comparison was drawn to check any differences between Medics I and Medics II students.

Table 4-5: M1 and M2 student preferences for text type in the English writing class.

	Text Type				Missing	Total
	General	Practical	MB	Medicine		
Medics I	41%	4%	3%	46%	6%	100%
Medics II	44%	10%	1%	38%	7%	100%

Table 4-5 shows that Medics I and Medics II have similar preferences regarding the text type. Mainly, they prefer medical and general texts. The percentages are closely related.

4.4.3 Writing instruction

The teachers' writing instruction may be one of the factors that contributes to students learning to write. Table 4-6 shows student perceptions on the clarity of instruction and the sufficiency of practice in all aspects of writing.

Table 4-6: Students' perceptions of English writing instruction

English writing instruction						
	Perception	1	2	3	4	5
23	...provides clear instructions in developing writing skills.	49%		24%	27%	
24	...allows for sufficient practice in the use of punctuation.	47%		23%	28%	
25	...provides sufficient practice in developing the grammatical part of writing.	41%		23%	30%	
26	...provides sufficient practice in spelling.	28%		25%	46%	
27	...provides sufficient practice in developing sentence skills.	30%		27%	42%	
28	...provides feedback on the writing homework.	56%		18%	24%	
29	...provides extra help for the weak students in writing.	22%		28%	50%	

Almost half of the students agree that ESP teachers provide clear instructions in developing writing skills and allow for sufficient practice in the use of punctuation. 41% think that their teachers provide sufficient practice in developing the grammar. However, 46% disagree that their teachers provide sufficient practice in spelling. Similarly, 42% of students disagree that ESP teachers provide sufficient practice in developing sentence skills. Over half of them agree that ESP teachers do provide feedback on written homework, but 50% think that their teachers do not provide extra help for weak students in writing. From some of the interviews, it is clear that there are students who require consistent guidance in writing skills (see 4.2.1). The medical students provided suggestions on how to improve the writing component by recommending that there should be a division of groups with separate textbooks and supplementary materials to relate to each particular groups' level.

Challenging writing activities should be provided for advanced students. Yet, the same sources provided for the lower level are provided for the higher level students. The following excerpt indicates the gap between competent and weak students. Though the groups are streamed, there is still a variation of levels within each stream.

Extract 12:

89 *There should be more concentration on writing, more practice. They [ESP teachers]*
90 *should tell us what is wrong and make us practice... The teacher did not concentrate*
91 *on the way to write since the teacher expects us to know (Yusra II).*

Yusra in Medics II states that she needs more guidance on how to write from the teacher. She seems to need more feedback on her writing. One could infer that in Medics I, the teacher may expect this problem, but compared with Medics II, the students are better equipped in the basic skills of writing since there is more essay-writing involved. Table 4-8 shows results from when students were questioned on their perceptions of the MB teacher's writing instruction.

Table 4-8 Students' perceptions of MB writing instruction

MB writing instruction						
	Perception	1	2	3	4	5
30	... provides clear instructions in developing writing skills.	10%		16%	74%	
31	...provides sufficient exercises in writing in class	7%		13%	80%	
32	...allows for sufficient practice before exams	18%		13%	69%	

For writing instruction (3 items), the students responded more negatively to the MB items (q. 30-32) than to the English. The majority of students believe that the writing instruction provided improve their writing were unclear. Similarly, the vast majority of the participants indicated that the writing exercises provided in the class were insufficient. Furthermore, the most students think there is insufficient practice before exams. This may be because writing is not emphasized or compulsory, as stated by the student interviewees. Haneen II noted that: *“The most important thing is to concentrate on the scientific information only, but as for writing, there is no writing.”*

4.4.4 Writing activities

In Chapter 3 (section 3.4.5) the writing activities applied in writing for Medics I/II are illustrated. The participants were questioned about their perceptions regarding both the English and the MB writing activities. Their responses are displayed in Table 4-7.

Table 4-7 Student perceptions of the writing activities in English and MB

	Writing Activities	English writing activities					MB writing activities				
		1	2	3	4	5	1	2	3	4	5
17	...include looking at good models of writing.	42%		23%	35%		22%	25%		52%	
18	...are relevant and motivating.	44%		24%	31%		32%	27%		38%	
19	...provide opportunities for revision and correction.	50%		18%	32%		28%	23%		47%	

43% of the students agree that English writing activities include looking at good models of writing; materials being relevant and motivating. Half of the students think that English writing activities provide opportunities for revision and correction. However, over half of the students disagree that MB writing activities include looking at good models of writing. More than one third think that the activities are relevant and motivating, and nearly half of them think that they provide opportunities for revision and correction. Clearly, writing activities should be motivating. In an interview question about writing activities Hanan II stated:

Extract 13:

111 *The teachers explain to us orally. They do not show us how. They just talk... I*
113 *suggest we do a workshop in the class like steps in making a summary. In general, if*
114 *we do a workshop is better...Let it be more interactive. We want to do more with the*
115 *teacher (Hanan II).*

Yet again, it appears that the setting of the classroom is teacher-centred: there are no workshop activities. Hanan II and Ameera II share similar perceptions concerning interactive writing activities in class, for example, in a workshop format rather than just passive learning as suggested by Hanan II. Ameera II, on the other hand prefers to do writing activities using computers. As Ameera I notes:

Extract 14:

13 *I need more training in writing...We go to computer labs when we redo the work in*
16 *the computer. She gives us writing to practise so that writing is helpful. The words*
17 *are retained in our minds when we perform activities and practise in writing. Also,*
18 *the writing activities are enhanced using computers.*

This finding is in line with Nelson (2000) regarding the benefits of computer tools for L2 students in that they can enhance their attitudes, motivation and interaction with others in the classroom. Hanan II's notion of a workshop supports Murrays' argument (1992). He notes that "collaborative writing is essentially a social process through which writers look for areas of shared understanding." (Murray, 1992, p. 103). (see 2.1.1).

4.4.5 Writing exams

Writing exams act as a form of assessment for the medical students in both their ESP class as well as a way of demonstrating what they have learned on their MB course. Table 4-8 shows the students' perceptions regarding the English and MB exams for their English and MB courses.

Table 4-8: Students' perceptions of the English writing exams in English and MB

	Perception	English writing exams					MB writing exams				
		1	2	3	4	5	1	2	3	4	5
44	...are easy.	38%		24%		36%	53%		22%		23%
45	...provide clear questions	54%		23%		23%	33%		29%		38%
46	...require training in answering exam questions	56%		23%		10%	78%		13%		7%

38% of students think that English writing exams are easy while more than half of them think the MBs are easy. More than half of them think that they provide clear questions while 38% of the students disagree on this. A majority believes that English writing exams do require training in answering the questions. This complements the findings from the interview data. However, 78% of them encountered difficulties in answering the questions in MB because of their failure to understand the questions. 78% of students require training in answering MB

exam questions. This may be an indication that these students have difficulties in answering exam questions. Mona I notes:

Extract 15:

30 *The questions in the MB do not need the language. The MB teacher should explain*
31 *to us the meaning. The questions in the exam are unclear. Questions that come are*
32 *not clear and not understood...I need more training in understanding the questions*
33 *(Mona I).*

Mona I needs help on how to answer exam questions; she wants to be guided. Indeed, there may be a need for training to be provided for MB teachers, specifically to help them deal with weaker students. Sireen I states:

Extract 16:

55 *I feel [the teacher] concentrates on the information the most. Later I feel it is*
56 *important how we write in the exam. They calculate if you make mistakes, and they*
57 *say you did not write well. They are grades, if the answers are very poor...*
59 *The MB course is exam oriented.*

Sireen I, in particular, feels that writing is relevant, but believes this is not sufficiently emphasized by the MB teacher. She appears to be confused and this may inhibit her motivation to write well since she appears unsure whether it is important or not.

Discovering student perceptions of writing exams is to learn how the student copes with the different types of question in the MB/ ESP exam. There are two questions in the questionnaire about students' perceptions of the MB course regarding answering with short answers and short paragraphs: '*Are you capable of writing short answers in your MB classes?*' and '*Are you capable of writing short paragraphs in your MB classes?*' The answers reveal that students say they do not have difficulties in providing short answers and short paragraphs. Only two students said that they had difficulty in providing a short paragraph or a long answer to a question. Possibly, these are weak students who can only manage to supply short answers which they have managed to memorize.

4.5 The effect of English on MB

The participants were questioned on their perceptions regarding the effect of English on the MB course. The question "*Have the writing skills taught in the English writing helped you in the Biology class?*" as well as some answers from the semi-structured interviews with students, were used as data to discover whether participants felt the ESP writing class had helped them cope with writing in their MB class.

4.5.1 Open-ended question data

Students were asked about the effect of English writing on MB. They were given the choice of ('yes' or 'no') to discover out the number of students who found it effective or not. 71% of the students gave a negative response, which indicates that the writing in the English class had not influenced the writing of most students in MB. In contrast, 29% indicated "yes." From the 267 questionnaires, only 63 responded to the only open-ended question. The 63 responses are shown in Table 4-9 below.

Table 4-9: Student perceptions of the effect of English writing in MB

Positive Effects	Number of students
Use of vocabulary/medical terms	30%
Basic writing	19%
Forming sentences	17%
Help in general with MB	14%
Writing an essay in MB	11%
Writing in MB exams	3%
Writing scientific sentences	2%
Summarizing	2%
Other Responses	Number of students
MB involves memorization	3%
No writing in MB	3%
No connection between the two subjects since MB is exam oriented	3%
Literary writing is in English not scientific	2%
Different objectives in MB and English	2%

Table 4-9 indicates that 30% said they had benefited from the use of general vocabulary and medical terms in the English class on their MB course; 19% reported that writing in basic English had helped them; 17% reported that forming sentences was beneficial; 14% that

English writing had helped them in general with their MB; 11% that writing an essay was helpful; 3% that writing in MB exams was helpful; 2% that they benefited from writing scientific sentences; and 2% had been helped in summarizing. These results contradict the data obtained from the questionnaire in which the majority of the students indicated the English had no effect on their learning in MB. This could be explained on the basis of the limitation of using close ended question in collecting data.

It is relevant to highlight that there are ways that English writing has helped students in the MB class. The use of vocabulary and medical terms has extensively helped the students. Since students have a limited exposure to vocabulary, taking the English course has enabled them to retain sufficient vocabulary. Writing in general and forming sentences, too, are perceived as important, since students have to form sentences in their exams. To some extent, writing in general, writing scientifically, writing in MB exams and summarizing have all helped some of the students.

Regarding the other responses, 3% reported that MB involves memorization; 3% that there was no writing in MB; and 3% that there is no direct connection between the two subjects since MB is exam-oriented; and 2% claimed that literary writing in English is not scientific. Lastly, one student made the point that there are different objectives in MB and English. It may be worth considering the different responses since it would provide a general idea of how students feel about the effect of English writing on MB.

However, the positive responses outweigh the negative responses. This may imply that both courses may complement each other if there is collaboration between the departments. Since most students find the effect of writing beneficial, where there is departmental collaboration, students will learn and benefit. However, these percentages represent the views of 63 out of 267 students: 204 students did not answer this question. This was probably due to time constraints because the students have to think more carefully about such questions.

Here are some responses from the open-ended question: Lujain I notes, *“The recognition of vocabulary to be used in order to combine sentences that relates to MB and also writing correct sentences”* has helped her in the English class. Another student noted that, *“vocabulary and reading helps in simplifying the student’s grasp of the subject.”* Another wrote that it has *“helped me in understanding the subject MB more and the use of medical terms.”* A fourth student noted that the classes helped in *“improving my capability in forming*

scientific sentences correctly in the English language since I was not able to do so before entering university.” It has helped her in clarifying many misunderstandings caused by mistakes in grammar. It is apparent that vocabulary in the English class has helped many students to form sentences for the MB course. Improved reading skills have also come from more practice in reading MB. The English writing component has helped some students improve their sentence structures, facilitated their use of medical terms in their writing and helped in clarifying the rules of grammar.

4.5.2 Interview question

One student pointed out that the two subjects, MB and English, are interrelated. The following quotation suggests that there is nobody to help students realise that the two courses are related. This student is aware of the importance of writing in the future and postgraduate years:

Extract 17:

- 1** *We’ve never related MB and English as subjects. No one ever mentioned that we use*
- 2** *our writing skills in writing essays in the exams. Though it’s very important thing to*
- 3** *do. We’ll be asked to write essays in our postgraduate years (Medics II).*

The rest of the students may be aware of the integration but did not write about it or are unaware of it. It may be noted that there may be little awareness of writing skills being implemented in the MB classroom. The MB teacher notes that the most important matter is information. They do not attend to the issue of writing skills. One student emphasized: *“There are no clear goals in MB. The most important thing is to concentrate on the scientific information only, but as for writing, there is not writing.”*

From the interviews and the questionnaire data, the main influence is clearly on general vocabulary, applying medical terms, and sentence skills. Other perspectives of students vary. The English writing lessons have made the students write, provided opportunities for conducting research on the internet, and assisted in simple writing skills for research and examination purposes. There were only 3 negative responses from the sixteen interviewees regarding the effect of English writing on writing in the MB class. English and MB were considered distinct subjects and there was no emphasis on writing in the MB course. The interview data shows similar findings to the open-ended question in terms of vocabulary, the use of medical terms, and sentence skills.

Table 4-10: The distribution of study's sample by whether students say the writing skills have helped them in MB (Medics I-133, Medics II -134)

		Helpful	Not helpful	
		Yes	No	
Medics I	Have the writing skills in English helped you in MB?	17.3%	82.7%	100%
Medics II	Have the writing skills in English helped you in MB?	41%	59%	100%

Table 4-10 shows that 41% of Medics II students feel that the writing skills in English have helped them in their MB studies compared with only 17.3% of Medics I. This may be because Medics II are more aware of the effect of writing since they have had more experience in writing. They are also given more opportunities to apply these skills in Medics II as there is more essay writing involved. 82% of Medics I students did not enjoy the benefit of English writing skills, possibly because most of them are new, and it may take them more time as new students to become fully aware of the influence of writing in English.

Table 4-11 shows results of the independent T-test performed for significance on: English/ MB writing syllabus; English/MB writing materials; English/MB writing activities; English/MB writing exams and writing difficulties.

Table 4-11: Independent T-test on writing elements for Medics I and II

		Medics I		Medics II		
		Mean	Standard Deviation	Mean	Standard Deviation	Significance
Writing syllabus	English	2.80	.792	2.87	.774	NS
	MB	2.90	.867	2.70	.901	NS
Writing materials	English	3.42	.728	3.48	.786	NS
	MB	3.40	.810	3.25	.792	NS
Writing activities	English	2.89	.915	2.83	.909	NS
	MB	3.43	1.05	3.15	.890	*
Writing Instruction	English	3.03	.842	2.95	.894	NS
	MB	4.04	.898	3.90	.890	NS
Writing Exam	English	2.65	.670	2.60	.650	NS
	MB	2.50	.661	2.45	.501	NS
Writing difficulties		2.63	.536	2.78	.565	*

NS – Not significant

Symbols indicating significance

* - $P < .05$

The results show that specifically for MB writing activities, and writing difficulties, there are statistically different results.

On writing difficulties, Table 4-11 shows that the differences between the two groups are statistically significant with $t = -2.135$, $df = 262$, $p < .05$. The significance value is .034. There are statistically significant differences between the two groups in MB writing activities in favour of the Medics I students. This may be attributed to Medics I students who experienced more writing difficulties since they are still new from high school.

There are statistically significant differences between the two groups in MB writing activities in favour of the Medics II students, with $t = 2.367$, $df = 247.759$, $P < .05$. The significance value is .019. This means that the results are close to negative, which might imply that Medics I students practise less writing activities in MB than Medics II students. This may again be attributed to the fact that students have more writing to do in their Medics II class, where they are expected to write more essays and conduct more research than Medics I.

4.6 Summary

This chapter has presented the findings of the students' perceptions of writing needs for the Medics I writing component. A mixed method was used: a questionnaire was distributed to 267 students, followed by semi-structured interviews with 16 students. To assess the significance of the quantitative data, independent t-tests were performed (for the items: English/MB writing syllabus, material, activities, instruction and exams. A comparison between Medics I and Medics II was performed to check differences in the form of percentages. The findings revealed that some students may need extra help to improve their writing skills, and there are no significant differences between Medics I and Medics II (English/MB writing syllabus, material, instruction and exams) except for MB writing activities and writing difficulties. Students' main wants are writing practice, reading for schemata, and grammar. The three leading "lacks" in writing are vocabulary, spelling accuracy and applying grammatical rules.

The discussion further explored students' perceptions of the syllabus and of the material used in teaching writing. Students believe that the writing syllabus for both English and MB are relevant to their needs. The data shows that some students say they are not aware of the objectives of the writing component, and suggest there may be a need for a study guide in English writing since it could guide the students. Also, some students noted that they may need to have more motivating, and contextualized material.

Both questionnaire and interview data revealed that some of the weaker students in particular may need extra help from teachers. There is consistency in findings between quantitative and qualitative data in terms of writing activities in the classroom. Some students suggested ways to make writing activities more interactive which included group activities, using computers and holding workshops, with the teachers' guidance alongside.

Regarding exams, students require training in answering exam questions, but more so in MB. Students agree that MB writing exams are difficult. They also hold ambivalent views towards English writing exams and towards clarity in the questions posed in the MB exams. The participants' position became clearer from the interview data which illustrated that MB questions require more guidance in order to be understood. Quantitative data shows that more than two thirds of the students did not feel that writing skill influenced writing for MB. However, the qualitative data provided by the majority of the 63 participants, noted that English writing affected them positively in terms of vocabulary/terminology; sentence skills,

and writing in English and MB. The rest of the students did not provide any data which may be an indication that they may be unsure of what to write or did not find the writing effective.

5 TEACHERS' PERCEPTIONS

5.1 Introduction

This chapter will analyse and present the findings of the interviews with the non-student participants involved in the research (see Table 3-6 for the acronyms of the participants). These participants were asked a series of questions in order to assess their perceptions regarding students' "lacks" in writing, the syllabus, materials, instruction and activities in MB and English. ESP teachers' perceptions of what students need to become competent in writing is also explored. Findings will also emerge from comparing/ contrasting the interpretations of the responses from the ESP and the MB departments.

5.2 Students' "lacks" in writing (ESP and MB perspectives)

By asking the participants from both departments, it is possible to discover how these teachers view their students' problems in writing, as they reflect on their teaching experiences (see 2.3). According to the ESP/MB participants, the students' problems can be categorised into the following areas: (i) reading/ideas/conceptualisation; (ii) paragraph writing; (iii) grammar/sentence; (iv) vocabulary/spelling; (v) scientific genre; and (vi) other categories: comprehension of exam questions; writing for professional purposes; emphasis on meaning of content; and lastly, writing practice as described in Table (5-1).

The ESP/MB teachers/ coordinators, the DH, and the DM were each asked about their perceptions regarding students' writing problems. Their responses are presented below. The results are listed in the order of response frequency.

Table 5-1: Students' writing problems as perceived by ESP, MB teachers, coordinators, DH and the DM.

	ESP	MB
Reading/Ideas/conceptualisation	DH, ET1, ET2, EC1, EC2	BT1, BT2
Form: paragraph/text level	EC1, EC2, DH	BT1, BT2, DM, BC
Form: grammar/sentence level	ET1, ET2, EC1, EC2, DH	DM
Vocabulary/spelling	DH, ET1, ET2, EC2,	BC, BT1
Scientific genre	ET2	BT1, BT2
Writing practice	EC1, DH, ET1, ET2	
Other categories: comprehension of exam questions, writing for professional purposes and emphasis on content.		BT1, BT2 BC

Based on Table 5-1, both the ESP and MB participants reported similarities in students' writing problems. The major problems students face concerns (for instance insufficient reading, paragraph/text levels, grammar and sentence skills). The next most common problems are vocabulary and spelling, followed by the paragraph: text level, for instance, the use of cohesive devices). The ESP participants think that students specifically need sufficient writing practice, whereas the MB staff are concerned with different issues such as comprehension of exam questions, writing for professional purposes and emphasis on content.

5.2.1 Reading/ideas/conceptualisation

The findings reveal that reading was one of the key factors to influence the students' writing abilities. There was a consensus among the ESP teachers, the DH, ESP coordinators and the BT teachers that insufficient reading is a common feature raised by the students. EC2 notes that:

Extract 18:

- 4 *I think they need to do more reading. They need to have more exposure to the*
5 *English language and they can do this by listening as well... They really need to be*
7 *exposed to sentence structure, to use correct grammar, vocabulary, new ideas, ...and*
10 *they don't have frames of reference of the world but also experiences of the world*
11 *which you acquire through reading...*

153 *The crux of the matter is that students are not exposed enough to English. I*
 154 *think reading is number one academic skill, because it would provide a lot of*
 169 *input to the student.... They should know the latest in science and technology.*
 170 *Read the Scientific American, the New Scientist*

Extensive reading could help to stimulate ideas. The more students read, the better their written English will be. Since their exposure to English is usually limited to classroom activities, extended reading outside the classroom setting could stimulate their written work. For more information on developing schemata, (see 2.1.1). Schemata development should provide the students with ideas.

In addition to reading about general issues, the reading of medical texts is an issue of concern in all cases. The ESP teachers stated that it would be beneficial if students could be supplied with medical texts. Medical students ought to familiarise themselves with different genres in Medicine such as medical reports, case studies, clinical notes and medical research journals. The more exposure they receive, the greater the chances that they may develop their knowledge and comprehension, and this may influence their frames of reference (and vocabulary) when they write. Through this exposure, students should be able to develop their medical schemata.

A library was suggested by the EC2 as a rich source of input for students. By reading, students would become aware of current developments in medicine. It appears that students do not have sufficient knowledge about the world which may be due to their lack of exposure to the media and reading. There is a possibility that as medical students with a busy schedule at the university, they do not have time to read other sources.

Extract 19:

162 *I would make each class have its own library. One of the students is the librarian*
 163 *who is responsible for getting out the books... and the students should be reading*
 164 *one book a week. The books should be in general English to acquire language. I*
 165 *mean then they can get a lot of ideas and would provide some input... Also, they*
 166 *should watch television, listen to the radio, and listen to news...This needs to be*
 167 *addressed*

EC1 emphasizes the need for more general reading: *"If they have the time, they should read and read... To me, it is one of the best ways to improve in all aspects."* General reading will provide the relevant schemata for general knowledge and new ideas.

There is a consensus among the MB participants regarding the need for reading medical texts. BT1 expects medical students to read, summarize and be exposed to medical journals. She adds that *“I prefer medical journals such as Nature, Healthcare, and MB books” (BT1)*. An awareness of the medical genre will familiarize the student with the overall structure and lexicon of academic writing, thus encouraging the student to write in a similar fashion in the future when the need arises. Additionally, BT2 puts an emphasis on training to read: *Again and again training how to read...If they did not read well, they cannot write.(BT2)*. It may sound a bit unrealistic to expect students to read scientific journals, especially some of the less advanced students (based on questionnaire data) who are still struggling with their English. But the BTs’ perceptions of the need for reading agrees with those of the ESP coordinators, teachers and the DH (see 5.2.1). However, MB teachers focus on reading scientific materials while ESP teachers emphasize general texts. Thus, I asked BT2 whether she taught them how to comment. Her response was:

Extract 20:

81 *Sometimes in the lab, we ask them to write comments on the lab, experiments. We*
 82 *ask them to comment, because they did not learn how to comment, how to use their*
 83 *mind. I ask them to comment on the experiment, for example by adding a*
 84 *concentrated solution on red blood cell, then there is a shrinking of the cell. Why did*
 85 *this happen? They did not learn in the years before how to comment...*
 86 *They did not want to learn to write. They want to copy, cut and paste. The paper is*
 87 *not organised, the characteristic, style and personality does not appear in the*
 88 *writing.*

Her comments implied that she has the ability to think independently and write her own ideas about a certain issue. However, the students may be weaker because those in question had no prior experience of using scientific terms in writing. Students prefer to cut and paste the text from other sources because they have not created their own sentences since high school: they are used to memorizing and copying model passages. BT2 also emphasized the need for ESP teachers to concentrate on simple models of writing with basic, descriptive sentences and an emphasis on linking text with diagrams.

Furthermore, EC2, ET1, BT1 and the DH reported that students have problems with conceptualising. EC2 highlighted the importance of reading as providing an input to write. (see 5.2.1). The writing problems faced by students, in the opinion of the DH, are explaining ideas in writing. She states: *[They have problems] explaining clear ideas. They have ideas but cannot express it directly and fully. They keep going round and round...*

5.2.2 Paragraph writing

The ESP coordinators/teachers, were concerned about the students' ability to write organised, cohesive paragraphs with attention to grammar, mechanics and spelling since these are the main objectives of the Medics I and Medics II curriculum. It should be noted that writing a complete paragraph is a main aim of the writing component in Medics I, so teachers focus on accurate paragraph form. Below are some of their comments:

Extract 21:

155 *They should be able to write a paragraph in an organized way...[and] express their*
156 *ideas clearly in a focused way with a minimum of errors...I do expect they pay*
157 *enough attention to the mechanics of writing, to the grammar, to the spelling, that is*
158 *legible and understandable... (EC1)*

This finding could be related to their secondary school backgrounds: where at that level, many students had to memorize written passages rather than think about how to think through what they want to say, select the appropriate words, and put them in sentences with attention to using the correct verb forms. This finding could be attributed to the effect of L1 on L2. Since Arab learners are not used to writing in a linear style, they would probably find this difficult to do. ET1 expects the students to write in an organized style. As the ET1 notes: "*I would want them to write a very good paragraph with a topic sentence, related supporting sentences, good grammar, fluency and related information...*"

In addition to simply writing a complete paragraph, according to ET1, emphasis should be placed on cohesion, since students constantly make the mistake of writing unrelated sentences. The DH has a similar expectation that students should learn to write a coherent paragraph: "*In the first year, write coherent paragraphs with correct sentences, clear ideas: unified paragraphs. They should be able to express their ideas more easily.*" This finding coincides with Hill's study (1986) in the SAU context regarding medical students' difficulties in composing a paragraph even after secondary education since a sound understanding of paragraph structure is crucial for the construction of comprehensible and written English. Subsequently, this finding demonstrates that the DH thinks that some students show very little appreciation of the principles of paragraph and essay structuring, and consequently tend to present information in a disorganized and illogical fashion. Doushaq (1986) claims that students are careless about paragraphing. Similar opinion was also expressed by a respondent in the study: "*They are not aware of writing a paragraph...They have to know how to compose a paragraph, a*

topic sentence and then make supporting sentences." ET 1

Past research has indicated another factor restricting the ability of students to structure and organise an EFL essay: negative interference from Arabic paradigms (Kaplan, 1966) (see 2.1.2).

Writing short paragraphs and essays is an essential part of the ESP curriculum specifically for Medics II students. In the EC1, and EC2 views, poor organization of ideas and paragraph development pose problems for students. In the BT2's view, writing short paragraphs and essays is often problematic: "*They have difficulty to write short paragraphs and long essays...scientific sentences need to be clear*" (BT2). The difficulty in forming scientific sentences is due to their lack of training in writing scientifically. Were they taught the right way to write scientifically? How can this MB teacher expect the students to write scientifically if they have no previous experience of doing so? For second language learners, it might take time to acquire the necessary skills to write scientifically (see 2.1.2: ACT model). Next, BT2 notes the problems of teaching since there are unclear objectives regarding writing:

Extract 22:

54 *The problem here we do not understand the objectives of the problems...Some only*
 57 *have a broad mind and willing to change. Some doctors are not willing to improve*
 58 *their learning, reading and writing. The staff is not willing to progress themselves.*
 59 *We should be trained to learn the English language and be evaluated...*

Here, she seems to be willing to develop better language skills and improve tuition in English, but simultaneously is disappointed that some of her colleagues are unwilling to take the initiative to improve their English language skills. It is significant to note here that some MB teachers who were educated in the United Kingdom or the United States have better English language skills than those who were educated in a Saudi university. Thus, students may get opportunities to be exposed to better language skills than those teachers who were educated in Saudi Arabia. It appears that BT2 shows a keen interest in the English language and expects the staff around her also to show interest. She emphasizes that clarity and simplicity of scientific sentences are recommended so that students can gain a better understanding of writing.

5.2.3 Grammar/ sentence skills

Existing literature suggests that grammar is problematic for Arab learners (Ryan, 2005). Hinkel (2002) notes that traditional approaches to grammar teaching largely focus on the inflectional forms of English verb tenses with the teacher's explanations of the forms used followed by structured exercises. More participants from the ESP department than the MB department reported that students tend to face grammatical problems. The DM and DH mention the need for grammar to be taught more comprehensively. As discussed in (4.3.3), grammar is one of the major problems faced by ESL students (see 2.1.1). The DH emphasizes the foundation of grammar and sentence construction as the core need for Medical students. She states: *"They need in general the basic sentence skills and grammatical rules: the basic sentence skills like the subject/ verb agreement."* This finding is consistent with Kambal's (1980) study and Kharma and Hajja's (1997) claim that Arab learners often have problems with subject-verb agreement; yet this agreement is also necessary in Arabic so Arab learners should be familiar with this rule in particular. Thus, more work is required to match the problems faced by the students with the measures taken by the teachers to improve students' performance.

According to the DM, these students need to concentrate on grammar and basic sentence skills. They need these writing skills to write progress notes and accurate medical reports when clerking:

Extract 23:

- 23 *They come in the fourth year, and from the beginning their grammar is very*
24 *poor. They have to take the information from the patient and then write it down.*
25 *This is called clerking, and then in our clinical session, they have to present this*
26 *clerking to us. The discussion is in English. Even when they have to present the*
27 *case, it is very poor. They get confused with the pronouns and the verbs. The*
28 *grammar is poor. We need to concentrate on the grammar.*

The confusion with pronouns and verb may refer to problems with subject-verb agreement. When students are in the fourth year of medicine, they should at least have acquired basic grammatical skills. However, it is interesting to note that, according to the DM, these are not commonly evident. In the fourth year, where they are expected to do a lot of writing, and when they have to be assessed by the doctors, they are not meeting the basic criteria in terms of their writing skills. It is relevant to note that English lessons are only given in the first two years in the study of Medicine, yet students study Medicine for six years. If English were

taught continuously alongside Medicine it would facilitate the required language skills.

According to the ESP coordinators, the DH, and the ESP teachers, consensus arose on the importance of students applying grammatical rules to writing. From the MB department, the DM alleged the most difficult problem for students is grammar (see 5.2.4). The ability to apply grammar in their writing poses problems. The DM considers that forming grammatical sentences is the initial step to forming a paragraph. This finding is consistent with Cook's (2001) view that there is an implicit tension between the pressure on students to produce well-formed sentences and the steps that students go through. DM shares this view about sentence skills: *"If they know the grammar and how to form a sentence, everything will come naturally in a paragraph"* (DM).

The DM notes a need for improved grammar and sentence skills, but stresses the particular significance of grammar as the foundation on which to build strength in other language skills. Moreover, BT2 noted *"We must use very simple English, simple words and simple sentence while reading and speaking."* It was pinpointed by Shokrpour and Fallahzadeh, (2008) that grammar, vocabulary and sentence skills are essential in writing. Indeed in the DM's view, these skills will also help in building good presentations, a frequently used form of assessment in the College of Medicine:

Extract 24:

144 *I care about the grammar and sentences, this is the foundation. I want the [student]*
145 *to become good in grammar more than presentation. Grammar is important. If she*
146 *is good in grammar, then she will be good in the presentation. I will start with the*
147 *basics (DM).*

Sentence skills

Sentence skills may be difficult for some medical students. BT2 expects her students to emphasize their points using simple, descriptive sentences. The students can also explain their points using supportive diagrams in order to assist the readers' comprehension. Her response accords with that of BT1, who mentioned linking figures and text through description: BT2 suggests: *"Provide them with simple models in the text book with simple and descriptive sentences, and also emphasize use of diagrams in order to describe them"* (BT2). In MB classes, students have to describe a diagram of a plant or a body system. They also have to write a description based on a diagram (an interpretation of a graph, for instance). BT1 clarifies:

Extract 25:

- 6 *They need an understanding of how they can summarise the paragraph or link*
7 *between figures and the text. They cannot make linking between figures and*
8 *texts. In MB, we depend on figures (BT1)*

BT1 raises significant points, such as summarising and linking figures and text. Some students are not aware of how to describe a figure in written text. They probably need more guidance and more practice in doing it. It is probably easy for the MB teacher to pinpoint this, but it may not be easy for students who are unfamiliar with this way of describing a figure.

5.2.4 Vocabulary/spelling

Using the vocabulary in the appropriate context may seem to be difficult for ESL learners (Nagy, 2005). In addition to the extensive vocabulary mentioned by the students (see 4.3.2), the ESP teacher perceives that using vocabulary correctly and using it in context may prove difficult according to the data provided by ET1:

Extract 26:

- 23 *They still have problems with vocabulary... They do not know how to express*
24 *themselves using the right vocabulary. Sometimes you think they are expressing*
25 *themselves and giving the meaning. They want to tell me, but they don't have the*
26 *proper vocabulary that expresses the meaning.*

This difficulty may stem from limited exposure to vocabulary and insufficient practice in using vocabulary due to too little provision of exercises for the students. Medical students have to deal simultaneously with general and medical vocabulary, which can prove difficult. Concern about vocabulary usage in the English learning process was also reported by Zughouli and Taminian, 1984 who found that Jordanian EFL students committed serious lexical errors when communicating in English. Doushaq (1986) further states that students failed to choose the appropriate academic vocabulary in their writing.

BT1 notes that students find it difficult to use medical terminology in the appropriate context. According to her, the students' problems in the use of medical terminology arise because the MB book uses many medical terms. Therefore, the large quantity of terms may cause difficulties in retention. BT1 notes that *"There should be emphasis on terminology."* Thus, students may find difficulties in learning and applying it in appropriate context. Fageeh (2003) raised the awareness that Arab learners are in need of learning strategies to help them

with writing skills. DH notes *“Also, they have spelling difficulties and they lack unity and coherence in writing.”*

Spelling

In the area of Medicine, misspelled words may give wrong interpretations of terms, with potentially major problems such as wrong diagnosis of a patient. The BC and the other professionals expect acceptable spelling. BT2 notes: *“They need to concentrate on the spelling while writing, especially of similar words. For example, the word cell has the same pronunciation as sell.”* She further notes: *... If they change just one letter, the diagnosis will change and medical description will change.* BC notes that: *“Spelling must be recognizable.... In Parasitology, they have to be aware of the spelling of the different organisms.”* Accurate spelling is not a priority; acceptable spelling is. However, BT2 emphasizes the fact that misspelled words could signal wrong meanings. Further elaboration is provided (see 2.1.1).

5.2.5 Writing practice

There was agreement among most of the ESP participants regarding the students’ need for more writing practice. EC1 believes intensive writing will help develop fluency. Although the need for more writing practice is vital, the teachers feel that they do not have enough time to give the students sufficient exercises due to their current workload. Cohesion in writing, multiple draft approach/ one-to-one interaction, exposure to different genres/ journal writing and class size are issues raised to enhance writing practice.

A. Cohesion

Extract 27:

- 54** *The only thing they know is that they just write separate ideas so the teacher has to*
55 *encourage them to improve their organization, style, and imitate the other writers*
56 *but not copy them. Imitating the style, because it is a foreign language, for instance,*
57 *in how to use transitions.*

ET1 pinpoints the lack of cohesion in students’ writing. The ET1 thinks that it may take a great effort to teach these students due to their tendency to write in an disorganized style. The DH is concerned with presenting the writing in a unified and cohesive style. The finding is in line with Hill’s (1986) study where one of the students’ writing problems was coherence. He further reported that students experience uncertainties in their use of joiners, pronoun references and ellipses, and end up writing simple sentences with unnecessary repetition. Doushaq’s (1986) study also found that students have problems with the use of cohesive

devices. The underlying reason for this may be that the ESL and Medical students in this study need considerable time to grasp the rules of writing in a second language, and that the teacher has to show more patience in teaching and providing sufficient practice for them. It requires more effort from the ESP teacher to motivate students to write, since they are often focused on success in exams, and might not otherwise be motivated (see 2.3).

B. The multiple drafts approach/one-to-one interaction

The DH suggest a multiple draft approach with teacher-student conferencing “...*the teacher will need to sit with them to correct the first draft and then they write it again and he/she then corrects it and then they write it again. This is the only way they can improve their writing.*” The combination of teacher and student in correcting the draft provides a positive experience for the student since there will be direct interaction regarding any issue in the writing. Thus, conferencing between teacher and student may be useful (Keh, 1990), but requires considerably smaller classes than at present. Moreover, conferencing encourages immediate feedback and an opportunity to discuss relevant issues directly. White and Arndt’s (1991) notion that the process of writing drafts, would help students improve the process of editing. As ET1 notes: *They need to see other people’s styles and analyze how they write.*

According to EC1, ET1 and ET2, students also need to be exposed to group writing which may help facilitate learning. Davis (1993) claims that students learn a lot when they are actively and collaboratively involved in a project. Students who work in collaborative groups also appear satisfied with their classes (Murray, 1992). Davis (1993) and Nunan (1997) recommend that participating in group activities may in itself enhance students’ motivation to learn to write as well as providing them with sufficient practice. A similar argument was also raised by the teachers in this current study. As pointed out by EC2: *We need far more time. This schedule does not give us time.*”

C. Exposure to different genres/journal writing

Among the suggestions for writing practice is exposure to various types of writing. Most of the teachers agree that if students are exposed to numerous writing genres, their creativity increases and their writing improves. Another way of gaining writing practice is through exposure to a variety of writing structures (Fageeh, 2003). EC1 suggests: “*I think they need to write a lot, more different kinds of writing... that increase their writing fluency, and their ability to develop ideas. They get stuck when they don't have ideas...*” She further notes: *Write more and maybe journal writing, something that is unstructured and ungraded. Also,*

they should have more exposure to group writing. EC1 mentions the need for providing the students with a variety of writing activities in order for them to develop new ideas. Journals can be an effective method to engage students in the process of thinking and learning (Connor-Greene, 2000). Exposure to journal writing could help build confidence in academic writing; ungraded journal writing practice could improve writing proficiency. This finding is consistent with Connor-Greene's argument (2000), that journal writing can actively engage students in learning since journal writing develops thinking.

D. Class size

In order to gain more writing practice, ET2 suggests smaller classes. She notes: "*I do believe they need more time, definitely; and we need to separate into smaller groups. To work with 40 students is too much in a class, especially in a writing class.*" Teaching writing skills to a large number of students can be hard since every student needs individual attention. Nunan (1988) and Murray (1992) report that, regardless of the subject matter, students working in small groups tend to learn more and retain it longer than when the same content is taught in other instructional formats. Where essays and assignments are concerned, there is less feedback in large classes, and thus less learning and less improvement in essay writing (Gibbs, 1997). It can affect the teachers' morale if they are not able to refer to students as individuals; and students do not tend to work well when they are anonymous. They may become frustrated if they do not get equal opportunities to improve their writing skills (Ward and Jenkins, 1997).

5.2.6 Scientific genre

Using scientific genres was highlighted by BT1 and BT2 (see 2.2). BT1 notes: "*Whenever you write about a scientific area, you must write the objectives, the body, conclusion and references in the end. It is important that [a student] is aware of the scientific method in writing.*" (BT1). The scientific method in writing embodies certain criteria. BT1 expect students to be aware of this since they may have to write scientific papers in the future.

Another problem these students face is reading. She thinks that for students to improve their language and writing skills, they need to read more in their scientific area. However, if students are not familiar with that area of reading and writing in general English, their ability to cope with scientific/medical style will not succeed since they have to master the basic skills of writing in order to comprehend the scientific genre. Help from ESP teachers to guide them in areas of grammar may be vital if students are to achieve a sufficient level of skills in writing, as required in scientific writing. Describing the process of something is relevant. It

means that students must be able to sequence ideas chronologically and organize their thoughts.

BT2 emphasized that students tend to copy without comprehension and learning to write properly. Yet, they cannot be blamed for not being able to write properly if they have not been given appropriate guidance in the past. Another possibility is that students may only focus on writing in the English writing class, so when they go to the MB class, they do not care, since the MB teacher does not emphasize writing. They may probably jot down the information required by the question, but even if they start to write, they may not consider it important to write well since it is not assessed. Yet, BT2 was discouraged if students carelessly wrote down the answers to exam questions or in any activity in class. According to the MB coordinator, comprehending the exam question is problematic.

BT2 specifically cares about the form of writing in comparison with BT1 and the BC. This reflects that they have different expectations from their students regarding writing. Another difficulty these teachers and coordinators encounter in the teaching of scientific writing is the incorrect use of register and lexis by students:

Extract 28:

55 *When you give them a descriptive paragraph or narration, they do fabulously*
56 *really. But when they write for the purpose of giving information on medical*
57 *issues or any kind of raw material, it tends to turn out very raw and very*
58 *straightforward which turns to be a bit hard, because they tend to have informal*
59 *language in their writing, and that is not acceptable.*

61 *They had a chapter on herbs and acupuncture...They did not have enough*
62 *vocabulary. But again, they were writing their opinions. They won't write facts.*
63 *They were writing stories and they are not writing definitions or facts...*

69 *We showed them a paragraph, and we worked on topic sentences and on*
70 *separate sentences. And we worked on diagrams to help them to write but*
71 *unfortunately the information is there but they can't connect their sentences*
72 *well. They can't put it in a medical form or a scientific form (ET2).*

In ET2s' view, the students seem not to have major problems with the structure of narratives and descriptions in general English. However, they do seem to have problems with scientific writing which includes the level of formality, vocabulary, paragraph structure and cohesion. This finding relates to the issue of processing declarative and procedural knowledge that the

ESL students generally experience. The students may be aware of scientific writing, but are unable to apply it in writing. They may require greater practice and more time (see 2.1.2). Another reason why medical students are incapable of writing scientifically is that they may have limited formal schema of scientific writing as taught in class (Field, 2004).

5.2.7 Other category

Comprehension of exam questions

The need to comprehend questions is essential for exam purposes. The ability to understand a question is usually a direct result of having a command of basic vocabulary and general English language skills: BC states that: *“They need an understanding of basic English. They need an understanding of basic question form in exams. They tend to have problems particularly with simple words rather than the actual terms.”* The BC clarified that she expects a clear question and a good answer presented clearly, even if it is in the form of bulleted points with a diagram. This is because an understanding of the content is critical. She seems to imply that morphology, sentence structure and paragraphing may be less important in exams than expected.

Writing for professional purposes

To write clearly, at least at a basic level, is important in university study, since it will be essential for the students' writing in the future (Bacha, 2002). As BT2 states: *Writing is very important and necessary in the first year since it is the basis for the other years. It is important they learn to write in a good manner since it will prepare them in the future....(BT2).* She further states: *When you are a doctor, and you will write a wrong diagnosis and medical description of what happened. Also, I stress on the mistake [in writing], I cut marks...*

However, as there is no assessment of writing in the assignments or exams, an ability to command this skill is taken for granted. This lack of assessment results in medical students not bothering to take writing seriously. One teacher mentioned the leniency of marking when assessing students' work in MB. Other MB participants were not specific about marking for writing. It is clear that the students should be familiar with the basic skills of writing, such as sentence structure, punctuation, basic grammar and spelling, to prepare them for future writing in their professional roles. It is equally clear that many of them are not. The DH

further explains the relevance of writing required during their internship and postgraduate studies.

Extract 29:

5 *They need writing because of their clerking ... in English postgraduate*
6 *studies, after they finish their medical schools. During their internship, they*
7 *have to write clerking about the patient and put it in the file.*

Emphasis on meaning

As one would expect, content is constantly emphasized by the MB teachers. The MB teachers in this study prefer accurate, acceptable, presentable writing, but their priority is content. The BC states:

Extract 30:

12 *First thing it would be understanding [the exam question]. Second, is how to write*
13 *in a legible form so you can actually read. I even ask them if the spelling is really*
14 *awful is to put it in Arabic words in brackets. Because we have to concentrate on the*
15 *specific content in MB. As a priority over English, because they already have an*
16 *English exam. I don't want to lose students who are good at science and still have to*
17 *catch up with the English. The students already have a comprehensive English*
18 *program and their English will improve. The problem is that we are having to do it*
19 *at the same time. So we don't want to lose good science students just because their*
 English needs some catch-up skills.

The English language is considered solely the responsibility of the ESP teachers by BC. Another problem noted by her is that the English and MB courses are taught simultaneously. Some students may not be able to cope with two subjects simultaneously. The BC senses that taking language and MB simultaneously may be difficult since both demand time and effort, especially in the first year. Students should not be assessed by the MB department for English writing that is the responsibility of the English department. Her view seems to be that good MB students should not be penalized for poor English. There will be opportunities later for them to improve their English. MB is the priority.

Surprisingly, she encourages the students to write in Arabic if they do not know the relevant word in English which signifies the importance of content. More importantly, in line with this finding, Lea and Street (1999) claimed that subject tutors considered academic writing conventions as important, but did not raise their expectations when organizing assignments.

However, the 'writing problem' is not clearly defined by the BC since her main aim is students' understanding of exam questions. There is no expectation regarding writing in any form. While the two MB teachers demand a substantial amount of writing, including essays and scientific assignments, BT2 notes that sentences need to be scientifically accurate. She asserts the relevance of reading scientific journals since this will cultivate an awareness of how scientific journals are structured and written. This implies that these teachers have different goals and needs when it comes to writing.

Students' problems according to the ESP and MB participants are similar in terms of insufficient reading, paragraph writing, grammar/sentence skills, vocabulary/spelling, and scientific genres. However, ESP participants emphasize on more writing practice while the MB participants have differences in terms of students' problems. The reason may be that the MB staff do not communicate with one another within the MB department; thus, nobody knows what others are doing.

5.3 Writing materials and activities

Participants from both the ESP and MB departments were asked to express their perceptions on writing materials and activities. The themes and concepts below are derived from the interviews with both sets of teachers and focus on (i) writing materials, (ii) writing activities.

5.3.1 Writing materials in English and Medical Biology

ET1 would prefer more medical-oriented texts, since she feels the students need to connect the language to what they are studying in Medicine. She thinks this will raise their interest. She encourages them to believe they need to be exposed to other people's styles. The role of schema derived from the exposure to different models of writing which contribute ideas and present various forms of writing (see 2.1.1). She does not encourage memorising but an exposure to other people's styles, and students are encouraged to write freely. She recommends independent, extensive reading outside of class:

Extract 31:

62 *It [Writing Companion] is a nice book, because we are teaching medical students. I*
63 *think we need a better book. We want to relate what we teach in MB. I think we need*
68 *to have a better, good content books based on Medicine... This way we relate to*
69 *students more to make the subject more interesting...They can search and read*
70 *about it. Whatever subject you assign them to read or write. Let them search, read,*
71 *and then in the next class, they will write about without any references. They just*
72 *read at home. Don't memorise. Just read and see other people's styles, and then*
 come write in the class (ET1).

As mentioned previously, the coordinator and some ESP teachers think that there should be more exposure to expressive writing, and to other kinds such as journal writing. Through this, students should gain good experience in expressing their ideas and building their confidence to write. ET1's underlying reason behind reading these different styles of writing is to make writing less demanding, so that when they have to write scientifically, they will not be resistant and will want to write.

The MB coordinator thinks that there is a lot of repetition in both the ESP course and the subject of MB in various topics, and that creates the need for improving integration in these subjects. There is a need to cooperate to avoid repetition of materials and also to improve communication with the ESP department. The BC suggests: *"The English textbook has a lot of MB in it, and therefore there is a lot of repetition. I really think we need to cooperate and integrate."* BT1 thinks that there is excessive scientific information presented in the writing textbook and that it is specially geared to future needs, while she wants language teachers to emphasize present writing needs: *"The textbook has too much information. Simplify the textbook. Give them one thing at a time. You give them things for future needs (BT1)."*

She noted that the information ought to be modified and not restricted in content. Therefore, students will find it easy to grasp. She also suggests that language teachers should focus on the medical terminology more. BT1 wants the ESP teachers to allocate more time to teaching medical terminology and ensuring that students are grasping it, while the ESP teacher tends to focus more on the general picture of the students' goals in achieving both general writing ability and the ability to write scientifically. She states: *"The textbook has information for third-year content material, and should be more simple for students."* BT1 recollects her successful experience with the nursing department. She devised the syllabus (the terminology) to be taught by the ESP department for the nursing students. By the time they took the MB course, they had already become familiar with the terminology. She further suggests that ESP

teachers should teach basic writing skills and simultaneously focus on their syllabus but with an emphasis on MB terminology:

Extract 32:

43 *Before I went to the United Kingdom, I gave the Nursing Coordinator in the*
 44 *Nursing Department, the topics arrangements before she starts (the medical*
 45 *terminology) and by the time the students learn the course, they have already*
 46 *understood the terminology. The cooperation is very effective since it is the*
 47 *same syllabus. After one month and a half, the students came to class and*
 48 *they understood. Now they do not know. The students lost the terminology. It*
 49 *is better if there is cooperation. I prefer to give them the first year topics. Ask*
 50 *for the syllabus (BT1).*

5.3.2 Writing activities in English/Medical Biology

The writing activities given to Medics I students were basically at sentence level and paragraph writing. Free writing, journal writing, narrative and descriptive writing were also practised in class. ET2 notes that she taught scientific writing where linking figures and text was also taught. Specifically, the writing activities given to Medics I and Medics II students were explained in 3.4.5. For perceptions on writing activities, interviews with the teachers (ESP/MB) were conducted. Table 5-2 represents their views.

Table 5-2: Writing activities mentioned by ESP and MB Teachers

	ESP	MB
Below paragraph level (e.g. sentences, notes)	ET2	BT1, BT2
Paragraph level	ET1	BT2
Above paragraph (e.g. text)	ET1, ET2, EC1, EC2	BT1, BT2
Scientific writing	ET1	BT1

Table 5-2 shows that the ESP participants, coordinators and MB teachers reported that students' writing activities operate above the paragraph level. These activities include free writing, journal writing, descriptive and narrative writing. The MB teachers highlighted project work, theoretical medical paper, summaries and essays. However, the MB teachers placed greater emphasis on activities that focus below the paragraph level. These included short sentences describing some kind of process; bulleted points to accompany drawings; and comments on diagrams, experiments and definitions. ET1 and BT2 reported similar activities at the paragraph level. Another activity common to two departments is scientific writing.

Writing activities in the MB classes focussed on project work using the scientific method and writing paragraphs and essays. The MB teachers noted:

Extract 33:

30 *Write a description about a diagram. They only need to write notes in the*
31 *lab report. They used to write reports but now no more. They write*
32 *comments on the diagram*

81 *Sometimes in the lab, we ask them to write comments on experiments. We*
82 *did not teach them to comment, because they did not learn how to*
83 *comment, and how to use their mind... (BT2).*

The MB teachers vary in their expectations of the students regarding the activities. BT1 tends to focus on students' future needs in writing, while BT2 focuses on present needs (giving comments, definitions, essays and summaries) in the MB course. BT1 is aware that other teachers do not concentrate on the scientific method of writing. This data may imply that MB teachers are independent, and make their own decisions without communicating with each other: there is no fixed content that all teachers have to teach equally. However, the BC's views on writing activities encompass writing short sentences describing processes, tabulation and bulleted points to accompany drawings.

5.4 Summary

This chapter discussed the ESP/MB participants' perceptions concerning their students' "lacks" in writing for Medics I English. The lacks in writing of their students from the ESP and MB participants' views are similar in terms of reading/ideas/conceptualisation, paragraph writing, grammar/sentence skills, vocabulary/spelling, ideas/conceptualisation and scientific writing. They differ however in that ESP participants noted that medical students need more writing practice while the MB staff noted different problems, such as comprehension of exam questions, writing for professional purposes and understanding content. There was a consensus that medical students, in particular the weaker ones, may need additional help. The semi-structured interviews with the ESP/MB teachers revealed various attitudes on the materials to be used in teaching writing. ESP teachers prefer the inclusion of more medical texts, as well as various writing activities such as free writing, narrative and descriptive. MB teachers prefer project and scientific-based material and below paragraph writing (i.e. more practice on writing sentences). The MB coordinator and MB teachers have different expectations regarding the students' writing needs in the first year of Medicine. However, their expectations are generally high, and may be inappropriate for some weaker students who are still struggling with the English language as a whole. Their expectations may only be realistic for advanced students who are in need of a challenge.

6 TEACHERS' PERCEPTIONS TOWARDS COLLABORATION

6.1 Introduction

This chapter will discuss the findings of the interviews with the ESP/MB teachers (ET and MB), coordinators (EC and BC), the previous Deputy Head of the ELC (DH), and the Dean of Medicine (DM), regarding their perceptions of cooperation, collaboration and team teaching. It will also address challenges to collaboration. To the researcher, these three terms are all viewed as aspects of collaboration. But while the words cooperation and collaboration are synonyms to some participants, only a few understood the meaning of team-teaching. So the three terms will be addressed, and at times may be used by some participants interchangeably.

The major and sub themes which emerged from the transcripts of interviews are illustrated in Table 6-1. The following themes are those on which the participants from both departments were willing to cooperate. The findings are then reviewed in relation to past literature.

Table 6-1 Major themes and sub-themes

Major themes	Sub-themes
Content	Decisions regarding content The preference of teaching content in L1
Organisation	Administrative issues
Goals: The teaching of Writing	Agreement on the selection of content Clarity of teaching goals
Interpersonal issues	Communication

6.2 Content

The significance of content selection in the ESP classroom is discussed (see 2.4). It is hypothesised that the ESP and the MB teachers would need to communicate about the selection of content for the writing component in the ESP classes that may be relevant for ESP students. For more discussion on the importance of content in teaching (see 2.3.1).

In this study, participants from both departments were interviewed regarding their perceptions of cooperation, collaboration and team teaching. They appeared willing to cooperate in selecting content for the ESP class and the ESP staff expressed general expectations on content in the ESP class. BT2 shares a positive attitude towards cooperation saying that ESP teachers have been willing to borrow MB books in order to familiarise themselves with course content. BT2 notes: *“Cooperation is very important. Some ESP teachers cooperate with me, and they take our MB books for reference” (BT2)*. This comment suggests that to some extent, there is a general willingness to make themselves aware of the needs of the parallel course. To me, this is an initial sign of cooperation.

Yet it is interesting to note the underlying messages in the interview extracts selected for this chapter. While teachers appear to show positive inclinations to the idea and ideology of collaboration, their words convey different messages which challenge the notion of cooperation of equals for the benefit of all. The extract above is an example of this mix of messages. BT2 claims a positive attitude towards collaboration, yet an in-depth examination of her comments eventually shows that she values cooperation only when others ‘cooperate with me’. Throughout this chapter I shall be looking at the paradoxes revealed by the participants towards collaboration, and the real desire of these teachers, particularly the content teachers, to retain their autonomy, independence and status.

6.2.1 Decisions regarding content

The ESP coordinator expressed a positive attitude towards cooperation. She considered that for medical students, use of English has to be of a “high standard.” She also specified that the language should meet the students’ needs which she defined as being able to understand and interpret material supplied in MB classes.

Extract 34:

- 75 *Why should we not cooperate in order to make their English better so they can*
76 *function as medical students? In my view, the teaching should be adapted to their*
77 *specific needs. We don't have this correlation and communication with the content*
78 *teachers, so I think that this would be a benefit to do so (EC1).*

While EC1 believes that teaching ought to be designed to meet students' specific needs, there is a sense of being unable to communicate with the other department. It appears that there is little communication at present. This is a key issue which emerged strongly from the interview transcripts. Without channels of communication being open and routinized, neither group of teachers knows what the other is doing. Therefore, possibilities of repetition may occur, which may be time-wasting for both teachers and students. There is a need for communication about specific content in order to avoid unnecessary repetition and overlap. There have been debates about how much content should be taught in the ESP language classroom (Taylor, 1994; Chang, 2007). Chang (2007) claims that the EMP (English for Medical Purposes) teachers find difficulty in teaching content with a high degree of accuracy. She suggests that an EMP teacher should have some general knowledge of the students' specialist subjects so that students benefit equally from the language and subject specialist.

Teachers may believe that they are teaching in the right way, while there may be errors of omission in their teaching that require ongoing negotiation between the two faculties. The ESP teacher may need to refer to the MB teacher for information related to course content and relevance. The MB teacher may need to inform the ESP teachers that there are salient points that require emphasis, for example, exam strategies, note-taking skills, report writing and study skills may have a specific importance within this discipline. Without collaboration, students' needs will not be met. Improving and maintaining communication between the two staff teams, therefore, poses a challenge that needs to be resolved in the future (Crandall and Kaufman, 2002; Iancu, 2002). Kasper (2000) also signifies the importance of communication between staff, students, administrators and program directors. EC2 notes:

Extract 35:

- 97 *I think in the first year, we don't do much sharing of ideas between the MB*
98 *department except for the second term when we do ESP writing, but more in the*
99 *second year when we do more journal writing about the dissection sessions that*
100 *the students have. Then I think there is more coordination between the two.*

- 133 *It would be a great thing to work together with them because it would make the*
134 *students better. I think this is lacking right now. Definitely, we should have this*

- 135 *cooperation between the two departments. They should actually specify for*
136 *example what class of medicine they are teaching so we could do an essay on it.*
137 *This would provide a better service to the students (EC2).*

This raises the issue about why general English is only taught for the first semester and ESP in the second semester. The ESP coordinator showed a positive attitude towards cooperation, and is evidently interested in discovering which MB topics are taught, so that she can organize writing assignments more efficiently. This cooperation, in her view, would help students to improve both in their language skills and subject knowledge. However, it appears the departments have only negotiated regarding second-year writing. Cooperation for the welfare of the students is clearly apparent but implementation has been poor. The DH of the ELC further notes that English teachers need to sound out the MB teachers' opinions regarding materials used in the classroom.

Extract 36:

- 69 *We have to get their help in this area. As English teachers we need to know, we have to*
70 *show the content teachers our books and get their opinions. For instance, do these*
71 *present books prepare their students?*

By improving communication, both faculties will be more aware of what materials are relevant in both the ESP and MB classroom. ET1 agrees with the DH that collaboration would help to improve materials selection for ESP classroom. She notes:

Extract 37:

- 115 *In terms of choosing the books, it is okay. As for exams, it is too much. It will*
116 *make us more confused. This is something I think we are qualified to do alone.*

ET1 may be defensive of her own space, and feels that she must decide on certain issues such as content and the mode of assessment. Clearly, she regards collaboration as burdensome, but seems unaware that in claiming the right to set exams independently she may not be pre-empting her own and her colleagues' expertise by predicting that process' will make us more confused' rather than seeing it as productive and load-sharing to benefit all staff and students. Her defensiveness is evident when she notes that 'this is something we are qualified to do alone,' seeing the involvement of the other team as a risk to her professional status.

The MB teachers were asked how they could cooperate with the ESP department. They showed willingness on several fronts. The BT1 notes: "*Cooperate, take the syllabus, give MB*

terminology, help them know how to write using scientific method and be aware of the terminology.” BT1 is keen for the ESP teachers to cooperate with the MB department but sees this in terms of ESP teachers equipping the students with the terminology. This replicates the scenario of the English teachers servicing the MB teachers (Arkoudis, 2006). However, BT2 prefers to collaborate in preparing ESP exam questions with the ESP department since she feels that she has the necessary content expertise.

Extract 38:

- 128 *Take my opinion in exam questions since the information is scientific in content*
129 *subjects and it will be repeated for the students...Encourage them to read.*
131 *There is need of cooperation, very important (BT2).*

BT2 also notes the significance of reading and asking ESP teachers to help students to read. Plainly, she thinks highly of cooperation between the two departments. Yet, there is a dominant attitude in what this teacher says since she wants the ESP teacher to accept her opinion regarding exam questions. Moreover, there is no expressed mutual consideration for the ESP teacher whom she assumes will act as a facilitator while the MB teacher plays the role of the transmitter of knowledge (Arkoudis, 2006; Jacobs, 2007). Yet, both are working towards the same goal: meeting students’ needs, which might be better facilitated by mutual respect among the professionals. The apparently stronger position of an MB teacher is also manifested in the DM’s opinion of the MB teacher as the person of knowledge and reference. The DM believes that selecting content for ESP teaching should be done in collaboration with the MB teacher. She says:

Extract 39:

- 135 *Yes, there should be collaboration especially with the content material. The*
136 *language teacher won't know what to teach. She refers to the content teacher for*
137 *scientific information within the content area, which may be simple for the*
138 *content teacher since this is her field (DM).*

The DM clearly believes it is appropriate for the ESP teacher to refer to the MB teacher for information. Naturally, it is the MB teacher who has the greater authority in the College of Medicine because she is equipped with the scientific knowledge. Thus, the language teacher may be considered of lower status to the MB teacher even though there is no direct statement indicating this. MB teachers are positioned to be more of a higher status, because science subjects have more authority than language courses as well (Arkoudis, 2006).

Davison's (2006) and Arkoudis's (2006) description of the difficult relationship between the ESL teacher and subject teachers seems to be applicable. The DM shows a fixed attitude towards the language teachers in her statement '*the language teacher won't know what to teach*' (line 136). She refers to the content teacher as the one with scientific knowledge thus declaring her belief that the content teacher is the 'expert' and 'facilitator.' However, she appears to be keen on collaboration when she said:

Extract 40:

135 *There is a need to collaborate. The language teacher is unaware of what to*
136 *give. She concentrates on the grammar. In MB, she explains the items, and they*
137 *can write about it (DM).*

The DM may well underestimate the importance of the ESP teacher. For her, the ESP teacher is responsible only for teaching the grammar of a language. Thus the ESP teacher is marginalized. Creese (2002) claims that subject teachers own their own subject area, while ESL teachers do not project a similar level of ownership within the classroom. Nevertheless, ESL teachers are firmly positioned in the role of facilitating the teaching of the English language.

This may imply a reference to the adjunct model (see 2.3.3). As the MB teacher is more knowledgeable about the scientific content, this gives her the power to select the content of what is taught. Thus, it is the perceived role of the ESP teacher to apply language skills to the content material, i.e. she teaches to topics related to the content supplied by the MB teacher. In the adjunct model, both roles of power are evenly distributed. Both teachers are free to make their own decisions. They would only communicate their views on the materials to be used, or any intention to share them in the future. BT2, however, regards the ESP writing textbook differently. She notes:

Extract 41:

89 *The problem for the [English textbook] is that it is long, they collect everything in*
90 *one year. There is the intensive phase where they have to study about the body*
91 *systems and hospitals. It is enough to give them to focus on the structure of the*
92 *cell, the system...Do not give them everything, names of instruments,...*
93 *summarise. Try to connect with the Physiology and you give them information*
94 *they need after they graduate. It is*
95 *enough they take points. Give them group discussions, projects and change*
96 *methods to be more innovative. Give them the basics (BT1).*

The English textbook, BT1 covers too much in many areas of medicine. It is apparent that BT1 has positive suggestions for the English course. She suggests group discussions where there is a form of interactive rather than independent learning. It is interesting to note that there had been channels of communication in the past, ESP teachers would have known what specifically to concentrate on in their teaching which would have saved both students' and teachers' time. It has been pointed out by Spanos (1989) and Crandall and Kaufman, (2002) that intergrated instruction requires careful decision-making. The main challenges lie in developing appropriate content and convincing the faculty to participate in the program (Crandall and Kaufman, 2002). The DH expresses similar views regarding the goals of both departments to head in the same direction.

Extract 42:

83 *It's a very good idea - the big part of responsibility should fall on the shoulders*
84 *of the English teachers because the content teachers do not know what is*
85 *available in terms of English books. They know the vocabulary, but not the kind*
86 *of books to select, that is the area of English teachers. (DH).*

In terms of sharing materials, the English teacher's attitude to book selection is decisive and positive. She adds that sharing materials and collaboration between teachers helps identify goals for both departments to the benefit of the student. She feels that it is the language teachers' responsibility to select materials.

6.2.2 The preference for teaching content in L1

ET1 and ET2 show positive attitudes toward cooperation with, however, several reservations. ET1 notes:

Extract 43:

104 *It is a great thing, because then you feel you are really doing something helpful*
105 *for the students to [become] better. I don't have a problem... But, let us try this*
105 *first [cooperation]. Then, I will tell you. Because you don't know the other side*
106 *(MB department) whether they really know English, okay (ET1).*

There is an element of doubt in her statement about the other faculty's capacity to teach in English. The willingness to try cooperation is apparent but with caution. According to ET1, teaching MB in Arabic is problematic since the textbooks and assessment are in English and

some teachers are not well versed in English. Therefore, resorting to Arabic is easier. On the negative side, students may not understand the importance of paying due attention to English since the medium of instruction is often in Arabic which is much easier for them. However, the medium of instruction should be in English despite some teachers resort to teaching content in Arabic.

According to Murphey (1997), similar problems were faced in Japan, when some Japanese university teachers were teaching content courses in Japanese rather than in English. The reason was that these teachers lacked confidence and found it uncomfortable to speak in English. Some teachers did not think the students were proficient enough to comprehend the content in English (Murphey and Purcell, 1996) (see 2.10.3). In similar EFL contexts, teachers returning from graduate studies abroad are often the most eager to lecture in English and hope to bring about changes to the problem. ET1 perceives a similar problem with MB teachers teaching in Arabic rather than in English. She states:

Extract 44:

108 *The students tell us they teach them in Arabic and they just sometimes talk in*
109 *English and the whole teaching is in Arabic, which is bad. This is what I*
110 *heard. Maybe it is a rumour. So this is not a good source. I do not know.*

Thus the extent to which MB is taught in Arabic or English is uncertain. It is credible that if teaching is in Arabic, the value of English is undermined. ET1 disapproves of MB teacher teaching in Arabic rather than in English. She fears that students take English less seriously. The underlying suggestion in her comment is that cooperation may be difficult as the MB teachers may undermine these efforts and continue to resort to Arabic when teaching.

The DH raises similar issues regarding the significance of English in the teaching of MB and the emphasis on teaching MB in English.

Extract 45:

62 *This is where our students are going and we have to make sure the subject*
63 *teachers teach in English because what is the use for the students if in the*
64 *beginning you know that most of the science and medics courses will be taught in*
65 *Arabic? The students will put in more effort, and take English more seriously...*
67 *So it should be both ways, advising the teachers to teach in English because the*
68 *books are in English and the exams are in English. So why do the teachers teach*
69 *in Arabic? (DH)*

There is some frustration expressed by the DH of the ELC towards those MB teachers who teach in Arabic. She emphasizes that students will undervalue the importance of English if MB is taught in Arabic. It is clearly her that students would take English more seriously if the Medical courses were all taught in English. She also shows a positive attitude towards working with the MB teachers in sharing materials in order to benefit the students. She envisions that in the future medical studies departments will require students to learn English well.

Using the L1 in the classroom was also controversial in earlier research (Shamash, 1990; Auerbach, 1993). Some researchers consider that using L1 in the class may retard ESL acquisition (Shamash, 1990; Auerbach, 1993), while others suggest that using it in the class facilitates learning since it builds confidence in the learner (Friendlander, 1990) (see 2.5.2). The issue of whether to use Arabic or English in the classroom also goes back to which language has more power or status in the classroom. Findlow (2006, p. 25) discusses the linguistic dualism in higher education in the Arab Gulf where Arabic involves "cultural authenticity, localism, tradition, emotions, religion; while English is a reflection of modernity, internationalism, business, material status, and secularism." The use of Arabic in the MB classroom may signal that it has a higher status than English due to its familiarity and ease of comprehension. This notion may apply when MB teachers speak in Arabic in order to explain English scientific terms.

6.2.3 Resistance towards teaching content

One problem that prevents ESP teachers from collaboration is the reluctance to teach content. This could be because MB content is a relatively new area to them which requires reading and practice. The ESP teachers may probably not want to seem untrained and inexperienced since their actual specialty is the English language. This finding is in line with Spanos's claim that teachers can be intimidated by the prospect of having to deliver topics which they are not trained to teach (Spanos, 1989). The EC1 would not want the teachers to feel awkward. She notes that:

Extract 46:

147 *You don't want people to start to feel defensive. I don't know how English*
 148 *teachers might feel. They might feel intimidated if things are not clear. She*
 149 *might say 'I am not trained in this and I do not have a medical background,'*
 150 *because some of the teachers in the past felt scared to teach Chabner*
 151 *(Medical terminology) in the medical line (EC1).*

In the following extract, the ESP teacher senses that the MB teachers have high expectations of them. EC1 would not want to completely take the blame for the low standard of a students' language without considering his/her background in learning English. The MB teacher ought to consider the students' initial competence before blaming the ESP teacher. ET1 notes:

Extract 47:

- 140 *As I told you we have to try this [cooperation] first. The content teacher is*
141 *asking too much from us They expect too much... While also you know they have*
142 *to look at the student role. Maybe they are not good from the beginning.*
143 *Because here you start at a certain level. You are not going to teach basic*
144 *things. They will ask a lot and they will blame you for their failure. This is a*
 problem...
- 148 *Because we hear these rumours that they are saying you are not preparing your*
149 *students. So, I think we need to try it first and see. It is a different environment*
150 *here (ET1).*

The reference to rumour and ET1's earlier comment about the use of Arabic by the MB teachers shows that there is insufficient communication and open discussion. This view is consistent with the EC1's view. This may lead to mutual suspicion and the tendency, real or imagined, that people are talking behind backs. This may also reflect repressed emotions in the ESP teacher. There is a sense of anger and a lack of plain speaking between the two departments. Moreover, EC1's non-verbal behaviour exhibited a serious facial expression and a stressful tone of voice. What she says portrays an 'us and them' scenario in which there appears little chance of 'we have to try this.'

She notes that the students come with a certain level of English in the first year of medicine, and it may not be possible to teach them the very basic language skills. When the MB teacher perceives the students' low level of English, she may immediately assume it is the ESP teachers' responsibility to improve the students' level of English. As observed from research literature, content teachers tend to face obstacles when encountering students who are second-language learners (Ashcraft, 2006) (see 2.5.2).

The failure to sort out these departmental differences goes back to the issue that Arabs generally do not like losing face (Patai, 2002). Because of the authoritative status of an MB teacher, confrontation could make the ESP teacher feel marginalized and incompetent. Thus, to avoid this, they keep their distance which undermines communication, impels teachers to rely on rumours about the other department's activities and hampers mutual responsibilities to

meet their students' needs. Teachers from both departments have much to gain reflecting upon their practice and discussing their concerns, and devising ways of helping each other rather than challenging each other.

Establishing a balance between the departments may be difficult when teachers or coordinators may be controlling, since the other party will feel inferior and unappreciated. Sagliano *et al.* (1998) argue that the power balance in some team-teaching partnerships may be difficult to maintain. When there is a failure to resolve initial problems, this can induce a breakdown in integrated instruction and instigate problems. There can be problems on whether to focus on content or on language. These issues are clearly present here and however willing the teachers claim they are to enter a collaborative framework, tensions are apparent in the actual words they use to describe their relationship with the other department.

6.3 Organisation

The structure of an organisation plays an important role in education, especially in higher education. Its purpose is to play an essential role in providing equal opportunities for participants to contribute their views towards change and decision. The SAU is managed by a male director (see 2.7.2 and 3.4.1). These participants reported that they usually had joint meetings between the male and female departments to discuss new materials or about joint proposals. But decisions had to be unanimous. If one participant disagreed, then the decision would not be implemented. Regarding the joint English and MB proposals; the BC is inclined to cooperate. She asserts: *"I think about it considerably and I have actually put forward a joint proposal. I thought about it last year, but it got stopped."* (BC)

The joint proposal to integrate language and content (see 3.4.1) was put to the male MB department, but rejected. Such rejections are a major issue since any change or development in the curriculum must be approved by the men. In the English department, there is an element of uncertainty since all decisions have to be undertaken by the men.

Extract 48:

115 *It depends on the other side whether they agree to do this since we have a*
116 *unified syllabus with the men so there used to be consensus. We have to*
117 *have a big meeting and all of these people are present to give ideas and*
118 *to agree when can be done. The MB department and male ESP*
119 *department are included...*

121 *We did think about each program in the past, but the male staff from the*
122 *men's college didn't agree - so there must be consensus. Or else we can't*
123 *progress (EC2).*

There is no layer of management so far to coordinate this kind of cooperative activity. There may be internal consensus between the departments (male and female), but the final decision is undertaken by the men department.

6.3.1 Administrative issues

As described in the previous section, the final decision is taken by the men department. This is due to the centralised management of the SAU university, and is influenced by the discourse of patriarchy. However, without any male authority figure to support collaboration, decisions will be made with or without female approval. The role of authority is essential as in any educational organisation. The BC encourages collaboration and notes that ideas have been initiated in the form of a joint proposal. Team-based projects, however, would only be accepted if agreed by an authority figure. She states:

Extract 49:

- 130 *Well, the idea [about joint proposal] has taken off, it would have been both*
131 *collaboration in the initial courses. It was sharing ideas and from those ideas, we*
132 *put forward a formal proposal. If the proposal had got accepted, it would involve a*
 team based thing
152 *It would involve a formal arrangement with several members of formal staff. It*
153 *would be a nice, formal arrangement and may have authority behind it. So if we got*
154 *good ideas, they would be openly implemented (BC).*

It appears that there is no flexibility regarding informal change in the curriculum. It has to be undertaken in a formal/ authorized setting. It has been noted by Stoller (2004) that the success of collaboration depends on teamwork among foreign language teachers, regular classroom teachers and administrators. For collaboration to take place successfully, participants have to have a vision, leadership qualities and motivation to manage people. (See 2.5.2). This situation would be improved if decisions were actionable without having to wait for male approval. EC2 laments the absence of such management in the university. She asserts: “*We are in need of someone to coordinate organization. We don't have this management*” (EC2).

The need to administer and manage change effectively may be critical for effective collaboration. Ali and Camp (1995, p.11) mentioned the problem of Arab management systems. In their view, Arab education suffers from three problems: “unprecedented growth, poor quality and lack of vision.” Similarly, Al-Sulayti (2002) points out that education in the UAE mirrors the Saudi Arabian system. Among the problems arising were unclear and conflicting missions and goals, closely related to problems in study programmes, curricula,

administration and management. Regarding administration and management in the SAU, the DH notes that the main issue is the administrative challenges. She notes:

Extract 50:

98 *One of the administrative challenges is to find when all of*
99 *[teachers, coordinators] are available: 1) time availability- we have met that*
100 *problem many times. 2) They are not used to having these kind of meetings- we*
101 *have to convince everyone of the importance of these meetings (DH).*

Since the SAU staff are not used to having such meetings, it will take time and patience to implement change. The DM notes that it is essential to have a case study on the current context with empirical statistics, so that the idea of team-teaching can be justified when forwarded to the men's department. *"If we have statistics, research and study based on our students, then we can recommend them to the men's section. The men's department will have to agree"* (DM). She explained that if any proposal is based on careful statistical research with students at the university, then the men's department would have to respond positively. However, consideration may have to be given to the establishment of women's policy's department to facilitate communication.

6.3.2 Controls

Auerbach (1993) suggests that there should be an awareness of these several conflicting ideologies and power issues, so that teachers become conscious of their status in the academic community and learn to respect one another. Benesch (2001), in the U.S. college context, argues that without having to consider these issues of power, teachers would not be aware of their position in the academic community. The explicit intent of these teachers is to facilitate student access to the language required. Implicitly their goals differ and these differences do not benefit themselves, their teaching or their learning.

As a language teacher, myself, I would want to be treated in the same way as an MB teacher since we would both be performing our duties as teachers. There should be no marginalization of language teachers. BT notes:
"Take the syllabus from the beginning of the year, and help us lessen the load of the terminology. Also, emphasize the significance of terminology and the scientific method in writing.

Here is the tone of authority, evidence of a decision-maker. BT1 appears to be determined and

keen on the changes she has suggested. She emphasizes the teaching of terminology and scientific method in writing and seeks the help of the ESP teacher in conveying these to students. Another example is when ET2 recalled an incident when a MB teacher attempted to cooperate. *“There was a MB teacher who came in the beginning of the semester and asked to do something like that [cooperation]. She wanted to take over the class and not share.”* Arkoudis (2006) and Davison (2006) investigated the discourse between subject teachers and ESL teachers. My data, reflecting the position of MB teachers against ESP teachers, shows similar findings to Arkoudis's study in that the subject teachers seem to have a stronger position than a language teacher by considering ESL teacher knowledge as generic.

The ESL teacher, according to BT1, is presented as simplifying language and by implication, simplifying the curriculum. Lee (1997) has argued that language teachers working in a school or university disciplinary setting are often seen as possessing a generic knowledge not controlled by a subject curriculum. This kind of knowledge is associated with the general and generalizable. Thus, language is positioned as secondary to the disciplinary knowledge.

The subject teachers appear to think primarily in terms of what information is transmitted in a lesson and it is topic-centered. Their main focus is on the transmission of knowledge, not the methodology. Davison (2001) claims that the ESL teacher is considered as a technician who will help facilitate content for the students. The English teachers showed compliance in seeking opinions from the MB teachers regarding materials. The MB coordinator, specifically, resisted the use of writing in the classroom and reflects Moore's (1994) views on the use of writing in the MB classroom (see 2.5). Davison (2006) argues that ESL teachers are generally more positive than content teachers about collaboration. They showed no open resistance to partnership, and were guarded in their responses to success, perhaps because they had higher expectations than the content teachers on collaboration, or because they were still coming to terms with the challenging change in their role and responsibilities, and the subsequent loss of ownership and control.

Hargreaves (1994, p. 204) argues it is essential that “sharing should not be as competitive as sharing among the skilled and less skilled, the expert and the novice, but among communities of professional equals committed to continuous improvement.” Without equality in work, tension among workers may be inevitable.

Thus, conflicts may arise between individuals. DH raised this issue:

Extract 51:

102 *maybe each one will be competing like I'm the English teacher. I'm more*
103 *professional than the other one. I'm the major teacher so we have to find a way*
104 *where to support each other and not compete against each other.*

Creese (2005) claims that to a certain extent, it can be said that subject and language teachers conflict with each other. Subject teachers want more support while EAL (English as an additional language) teachers want to give advice to subject teachers. However, both groups are actually concerned with the same goal, providing the best for their students. Subject teachers prefer increased and sustained support and language teachers prefer to introduce changes related to language needs. Primarily, partnerships are associated with the subordination of ESL to the content area and with an imbalance between teacher status in terms of curriculum authority, responsibility, and opportunities for input. As implied indirectly in the data (see 6.3.2), the problems of status may be apparent between content and language teachers. ESL teachers are considered to be of lower, subordinate status (Creese, 2002; Arkoudis, 2006). Aurebach, (1991) claims that ESL teachers should find their respective positions in the academic community and not be underestimated. They ought to be treated as having equal status in the workplace.

6.4 Goals for the teaching of writing

Several issues emerged regarding teacher efforts to meet their students' needs. Hyland, (2006) claims that in planning course objectives, tasks and assignments in EAP, engagement with the subject department is essential. (see 2.3) This helps to contextualize instruction and make the EAP course as relevant as possible.

6.4.1 To give emphasis to the importance of the English language

According to the participants in this study, the English language appears not to be considered as important as the subject content in the MB classroom. Through cooperation, the possibility of English being emphasized is inevitable. BT1 shows an overt inclination to cooperate for the students' benefit and states: "*Students become more aware and understand the lessons more if there is cooperation between the language and the MB department.*"

If there is cooperation between the two departments, students will enhance their understanding of MB. Holliday (2005) discusses issues regarding the struggle of teaching English as an international language. He notes the power and status of a native speaker

teacher is higher than that of an ESL teacher. In this particular context, English appears to have a superior status to Arabic as reflected in some of the ESP teachers' responses. The need to speak only English may appear irrational since it is only rumoured that Arabic is used rather than English in the classroom. Thus, one should perceive this issue from a neutral angle in order to consider both English and Arabic as substantially equal. As English is an international language, ESL teachers tend to expect that English should be spoken all the time. They appear to feel upset or threatened that other teachers resort to Arabic rather than English, and believe that students would be extrinsically motivated to learn if English is integrated with MB since they consider their scientific subjects as their priority. Students, especially, may not be aware of the significance of English language, even though the MB teacher realizes that once students know that English can be related to Medical Studies, they will appreciate it more. The DM agrees with the MB teachers: *"When the student finds that the content is useful for her, she will then be motivated to concentrate more on the language which will be useful in getting grades in the examination."*

The DM emphasizes the learning of language through subject content. This explains that English by itself may be insignificant without connection to content. The rationale behind CBI is that language learning is encouraged by an emphasis upon significant content, from which learners can derive the meanings that facilitate the learning of vocabulary, syntax, writing and speech (Brinton, *et al.*, 1989; Spanos, 1989) (see 2.3.2). EC1 expresses a positive attitude towards cooperation. She plans to base her essays on MB topics even though she feels that formal guidelines are necessary. She claims: *"Well, we do not have clear expectations and clear guidelines of who is going to teach what. Where can you draw the line?"* ET2 however holds a slightly different perspective regarding cooperation. She shows resistance to teaching content. She states: *"If we have the same goals, if I could really teach writing and not MB. Yes, that is nice but becoming an MB teacher, that won't be very nice"* (ET2). Neither of these participants is actually prepared to lose status by opening negotiations to collaborate. While one focuses on drawing a line, the other more openly shows her opposition to cooperation that would mean that her own discipline is in any way downgraded.

The same goals and course objectives should be equally agreed by both the ESP and the MB teacher regarding the teaching of MB material. If the goals are not mutually agreed, problems may arise. Confusion is likely to happen about who is responsible to teach what. The view of ET2 is that she would prefer to concentrate on English writing skills and not to teach MB. This is because she frequently has to acquaint herself with new content material which is different from language teaching and which may cause her problems in her teaching (Spanos,

1989). The ESP teachers reflects her views regarding the importance of the English language. ET2 notes:

Extract 52:

141 *To understand that English is an important subject. If they are aware of that,*
142 *then we can work with them. If they are not aware of that, then it is a bit*
146 *hard...It is hard to make them believe that if students understand English, so*
147 *they could understand physics, MB and chemistry, because all of their textbooks*
148 *are in English. So if they do not have the language they can't understand what*
149 *they are doing (ET2).*

It seems that both the students and MB teachers do not appreciate the significance of English in their students' academic life. The difficulty may be exacerbated because the MB course is mainly assessed by percentages while English language may only be assessed as a passing grade. This variance in grading implicitly reduces the significance of English as an examination subject and thus as an important course element. More importantly, the MB teachers feel that their main objective is to transmit scientific information only. However, if they do not share the responsibility in raising awareness of the English language, or point out its relevance, then their students, in turn, will not see the significance of English and miss the connection between the two subjects. EC2 shows a more negotiating and realistic attitude towards collaboration, while retaining the view that her subject is important. She states:

Extract 53:

107 *I think [collaboration] is fine. We are teaching English for medicine, we are not*
108 *teaching English for general purposes, just for medicine. It helps students as much*
109 *as possible in their studies (EC2).*

To help the students to learn and benefit from their studies is one of the prime goals for the EC2. She realizes the importance of English in helping students in their medical studies since all the basic science courses are taught in English.

6.4.2 Clear goals about what to teach

The goals of the participants from the ESP and MB departments differ, with the ESP teachers, generally, expressing some enthusiasm for team teaching. EC2 expresses her view regarding team-teaching. She notes:

Extract 54:

117 *I think [team-teaching] sounds interesting. I am not sure how it would work. As long*
118 *as it is clearly delineated, as long as I do not have to teach something that is*

119 *unexpected and I am uncomfortable with. It would be very effective...I think the*
120 *students would think English is more relevant and maybe also make the students*
121 *realize the connection between MB and English (EC1).*

ET1, less concerned with the clarity of structure which EC1 demands, is more open to the concept of team teaching, and believes that if the MB teacher can transmit meaning and knowledge quickly, it will benefit the student.

Extract 55:

126 *[Team-teaching] is wonderful I think. It saves a lot of time and effort because*
127 *the MB teacher knows more...We might teach in the first half, and the other*
128 *teacher teaches the other half. This way we will teach something interesting to*
129 *them. We save the students' time. Medical information should be first and the*
135 *next level is the English structure... If we are going to work together, we will*
136 *meet, discuss and fulfill the aims (ET1).*

The ESP teacher, who has no previous background or knowledge of the MB course, may find it hard to convey the meaning of certain terms in the classroom. Saving time and effort for the student would be an advantage since the MB material would be taught by the MB teacher, which would leave the ESP teacher to focus on language aspects only. There is a positive incentive for the ESP teacher to collaborate with the MB teacher in order to improve their standard of teaching.

The DH shows a different view regarding team-teaching. She would prefer team-teaching only to be available at a later stage in the course, since in the early period, students need more focussed attention on the language and its skills. She argues: *“Maybe at a higher level, or more advanced level, but at the basic level. I think it should be the English teacher’s responsibility.”*

In the later stages, DH considers team-teaching applicable when students take more academically intensive courses. She means that the students should have been equipped with basic skills in English first, so that at a later stage, they can cope with team-teaching. She indicates that at a basic level, it is solely the language teachers’ responsibility to teach the necessary skills. In contrast, BC believes that team-teaching should apply in the first term. She notes:

Extract 56:

- 137 *I think it can be highly beneficial especially early in the first term...It would*
142 *show the students about the need to concentrate on the importance of English*
143 *rather than as a secondary subject as well. As I said I think collaboration as*
144 *team work would be very beneficial... (BC)*

Instantaneously, students would consider the significance of English language as a link to knowledge in their science courses rather than as an ordinary subject. It would then be considered as having equal status with the MB course. The MB teacher prefers English to be taught in the first semester and MB subject matter in the second term so that English language can be given more attention. BT1 and BT2 show different views. BT2 prefers the adjunct model. She states: “*I consider this [team-teaching] integrated teaching, I suggest to make integration 2 hours, and then when the English teacher teaches the language, the student will enjoy it*”(BT2). This view reflects the adjunct model where there is preference for each department to teach its own line of expertise but simultaneously share materials and open channels for communication (Brinton, *et al.*, 1989) (see 2.10.2).

Problems may arise when two faculties collaborate (Spanos, 1989). ESL and EFL teachers, who wish to incorporate subject matter from other curricular areas within their classrooms, are often affected by perceived time constraints (e.g. the difficulty of accommodating topical content within a language syllabus). Spanos (1989) believes that the implementation of a new programme developed from integrated instruction requires careful decisions regarding teacher training, materials adaptation and development. The DH appears to be aware of the challenges of collaboration.

Extract 57:

- 109 *Yes, we can overcome these things [problems of collaboration] if we have a*
110 *certain set of rules, and duties and you're supported to do this. Each one*
111 *knows their duties... At the end we are producing one product. We are all*
112 *collaborating to get the students to a certain level. This is our one goal (DH).*

If teachers are aware of their duties, they may not disagree. There are rules to follow and teachers should abide by them. Developing a system to follow and being aware of the duties and responsibilities are critical issues to consider. Another major challenge that requires further consideration is the content teachers' expectations of their ESL learners, and vice versa.

6.5 Interpersonal issues

Interpersonal issues are bound to be encountered within any working environment. Different personalities may clash due to misunderstandings and problems of communication. Interpersonal issues could also impact if teachers like the MB teachers in this study feel superior to language teachers because of their higher status at the university. In the following extract, EC1 describes how demanding a MB teacher can be: *“She wants to give us the MB texts and have us teach from the text. To me that is too much in their area - but we should open lines of communication”* (EC1).

Previous communication with an MB teacher has made the EC1 uneasy about collaboration since the MB teacher directly asked her to teach from the text. However, EC1 clearly wants to communicate with all staff and prefers a balanced attitude towards cooperation rather than imposition. Problems of communication with the MB staff may be seen here. However, EC1 is eager for an informal relationship with the MB staff. It appears that the MB teacher comes over as an authoritarian figure since she insists that the ESP teacher teaches MB texts rather than discussing what topics should be taught in the ESP classroom. If there is hostility, collaboration is difficult to achieve (Dudley-Evans and St. John, 1998). ET2 who throughout the interview seemed to be appealing for clear rules and boundaries, also senses obstacles in the long run. She notes: *“Again, it depends on the personality and on the goals pointing in the same direction”* (ET2). There is a sense of discomfort regarding meeting new personalities, since without compatibility, there could be problems in the working atmosphere. Previous literature has confirmed that interpersonal issues are inevitable in teacher collaboration (Barron, 2003; Jacobs, 2007) (see 2.5.2). The BC’s major challenge is how to work with different personalities. She claims: *“There are no particular challenges really, just the usual challenges, except only you find some people easier to work with than other people because they are English teachers rather than a group of people.”*

In partnerships between classroom and special education teachers, Hargreaves (1994) also found concerns about expertise linked with issues of ownership and control, in which personality clashes and resistance to advice are common. Inevitably, the issue of compatibility is relevant since it promotes successful collaboration. BT2 shows similar views regarding the challenges.

Extract 58:

146 *Narrow minds. There are no problems except narrow minds [the staff of the MB*
147 *department].From the English teacher, there are no problems.Rewrite the*
148 *curriculum for us. Stress in the first year by using the terminology suitable in the*
149 *physics, MB and chemistry, and in the second year, the terminology for anatomy,*
 and physiology (BT2).

Some problems may arise from having to deal with difficult personalities. According to Davison (2006) teachers may be either compliant or resistant to each other. In the extract above, BT2 notes that there may be problems from having to work with those from the same department, rather than with the English teachers. Not only there may be problems with working with other departments as previously explained but also intradepartmentally.

6.6 Summary

This chapter discussed the ESP/MB's perceptions of cooperation, collaboration and team-teaching. The participants from both departments expressed positive inclinations to cooperate in terms of sharing content materials raised by ESP and MB teachers, and to suggest innovative ideas regarding the ESP curriculum suggested by the MB department. The challenges of collaboration have brought an insight and a better understanding of how the ESP/MB participants perceive collaboration. Reflecting upon the challenges, the main challenge, I believe as a researcher, that the main challenge it is the administrative body since it is the main decision maker in the university. If any change is to be implemented, it must be undertaken by the male department even though transmission to the administrators, coordinators and teachers is likely to be slow. Decisions could then be implemented. Collegiality is also encouraged in order for views to be shared equally in the workplace. Setting clear goals for the curriculum, a change of materials in the classroom, and deciding how much content should be used are all issues that require major decisions from the male department. The data implies that both ESP and MB perceive collaboration differently and seem to be fixed in their views. There is a major gap of expectations in the views of the BC and BT teachers, whereas the DM holds a rational perspective of what students specifically need. The views displayed by the participants contrast with each other in terms of their goals for writing, and this suggests that they have to come to some kind of consensus if they are work together in the future.

7 CONCLUSION

7.1 Introduction

This chapter summarises the whole study; it presents the main findings and conclusions with reference to the questions outlined in Chapter One and suggests recommendations for improvement and topics for further research. The chapter ends with a summary of the researchers' experiences as a researcher in the field of applied linguistics.

There were three main objectives in conducting this study. The first objective was to investigate and discuss Medics I/II students' writing needs in the first year of Medicine as expressed by the students, the ESP/ MB teachers, the coordinators, the DH and DM. The second, was to draw a comparison between Medics I and Medics II students in their perceptions regarding their writing needs to show any similarities and differences. The third was to analyse the perceptions of teachers' and coordinators from both departments, and those of the DH and DM perceptions towards cooperation and its challenges in meeting their students' writing needs. Below I will try to show how those objectives have been met.

This chapter explores the medical students' writing needs in general, and this exploration provides an understanding of students' 'wants' and 'lacks' in writing by the students themselves. In-depth view of student 'lacks' in writing were explored by the ESP and MB participants to provide an overall view of how teachers perceive their students' writing needs. Students,' ESP/MB participants' perceptions towards the syllabus, materials and activities, were further investigated. Finally, the ESP/MB participants' perceptions towards collaboration and its challenges were explored to find whether they could collaborate better or not in the future.

7.2 Summary of the study

7.2.1 Medical students' perceptions of Writing Needs

The majority of students say they need extra help to improve their writing skills in general. There are no significant differences between Medics I and Medics II students. The results illustrate that most perceptions are similar except for those regarding MB writing activities and writing difficulties where Medics II are expected to write more essays and conduct more

research than Medics I students. Medics I practise fewer writing activities in MB than Medics II since there is more essay writing in the second year.

The questionnaire data, revealed that students' wants are writing practice, reading for different schemata, and grammar practice. The three leading lacks in writing are vocabulary, spelling accuracy and applying grammatical rules. One interesting point is that although the students may understand the rules in grammar or in their writing, they find difficulty in applying them. This view may be consistent with Anderson's model (ACT) as he noted the length of time required for learners to learn a specific skill (see 2.1.2). Other problems were expression of ideas, using linkers and writing whole texts. These problems may be due to the students' background in rote learning, the influence of Arabic on L2, insufficient practice in class and time constraints.

A wider discussion of students' perceptions of the syllabus and materials used in Medics I English was developed. This showed that the students do believe that the writing syllabuses (for both English and MB) are relevant to their needs. The results reveal that students were not aware of the learning goals of the writing component. Future highlighting of these objectives is required. The importance of learning goals is to ensure that students are clear about what they are going to achieve by learning to write effectively. More instruction in spelling and sentence skills is recommended. Only half of the students think that the teachers provide feedback in writing and most students disagree that MB writing instructions provide clear instruction and provide sufficient writing exercises before exams. This may indicate that the ESP class is solely responsible for teaching and providing the exercise for writing in the MB class.

Results also suggest students need a study guide on English writing to help them find relevant information about their course and provide samples of exam questions in the MB course. Regarding English writing materials, some students raised was the need for more motivating, contextualized and authentic material. Both the quantitative and the qualitative data revealed that the students, weak students in particular, need extra help from teachers. This consistency between quantitative and qualitative data also exists in the participants' perceptions of writing activities in the classroom. The majority of students expressed a need for both medical texts and texts based on general topics. However, few students of Medics II preferred group activities. As noted by some of the students (Chapter 4.4.1) there is no writing in the MB course, only memorisation of content

In the questionnaire, the students had no strong feelings towards MB writing activities. However, in the interviews some students suggested ways to make writing more interactive and integrated: group rather than individual activities; the use of computers and workshops; and the presence of a teacher to guide and support them with these activities. The group activities that these students suggested are supported in the social constructivism theory which posits that learning is a product of interaction. This can be applied in teacher and student conferencing and group activities. Regarding English/MB writing exams, the students want training in answering exam questions. The interview data in this study also suggests that MB questions need to be set out much more clearly.

On the effect of English writing on MB, views were divided. The quantitative data shows that while almost two-thirds of the students, did not feel that their English writing skills had any influence on their MB studies, the rest did. However, of the 63 interviewees, the majority noted that the English writing training had affected their output positively in terms of vocabulary/terminology and their sentence skills, in both English and MB writing. Interestingly, only one student of 267 mentioned the importance of integration between English and writing, and its significance for their future careers. The rest of the students (266) did not mention it.

7.2.2 ESP and Medical Biology teachers' perceptions of writing needs

Data shows that both departments have different perceptions about writing needs in terms of the students' lacks in writing. The ESP and MB staff have similar views on their students' lacks in writing and cite insufficient reading, paragraphs, poor grammar, vocabulary, sentence skills, lack of ideas, and general scientific writing. ESP participants specifically want for more opportunities to practise writing skills in general. The MB participants highlighted on the comprehension of exam questions, writing for professional purposes and an emphasis on understanding meaning.

Opportunities to improve cohesion in writing should be applied allowing students to write multiple drafts by decreasing the class sizes to allow more focussed attention on the weaker students. The methods which ESP teachers said they used in helping weak students were reformulation, journal writing, free writing, one-one interaction, and more frequent drafting. It

is essential to pinpoint here that interaction between teachers and students also involves social constructivism where learning is encouraged through interaction.

The semi-structured interviews with ESP and MB teachers revealed different preferences. The ESP teachers prefer the inclusion of more medical texts. For writing activities, the ESP participants want activities above the paragraph level such as free writing, narrative, descriptive and journal writing. The MB teachers want activities such as project-writing, compiling theoretical papers, summarising and writing essays. Below the paragraph level, the MB participants stressed the use of short sentences in describing particular processes, bulleted points to accompany drawings, comments on diagrams and experiments and definitions. Of the ESP teachers, only ET2 felt students needed activities below the paragraph level. Both departments reported similar activities at the paragraph level, and a need for training in scientific writing. According to EC1, ET1 and ET2, students need to be exposed to group writing as another strategy help facilitate learning. As predicated by the social constructivist theory, and as Davis (1993) argues, students learn more when they are collaboratively involved in a process.

7.2.3 Teacher perceptions of collaboration and its challenges

This thesis also has helped to illuminate the issues and conflicts between language and content teachers that arise in the workplace between different departments: the marginalization of ESL teachers, the ownership of content teaching, the resistance of ESP teachers to teach content, an awareness of the role of the English, and its relevance in higher education and the academic community.

The participants from both departments showed positive inclinations towards cooperation in terms of sharing materials, and being able to suggest ideas (such as using modified materials and content related materials) regarding the ESP curriculum. The MB teachers suggest relevant scientific genres that ESP teachers are not aware of but which might be useful for medical students. The DM believes, through cooperation, the ESP teachers should refer to the MB teachers for the comprehension of content while simultaneously facilitating language skills. She further emphasized that students would become more motivated to learn and perform better in examinations if there were integration of language and content.

One obstacle was raised by ET2 regarding the teaching of content. The resistance of ESP teachers to teach content could be problematic due to inadequate training and the difficulty of

the content material. ESP teachers may be reluctant to take on something new, she believes. Another issue is the negative attitude of ET1 and the DH's views on the use of the L1 in the classroom. The ESP teachers seem to feel that English should be the preferred language and that it is not given due attention in MB classes. Another obstacle is that language teachers who wish to incorporate subject matter from other curricular areas within their classrooms, are often influenced by time constraints (e.g. the difficulty of accommodating topical content within a language syllabus) (Spanos, 1989).

The dilemma of whether to use English or Arabic in teaching was further explored by Auerbach (1993). He claims there are advantages of using the L1 in the writing classroom in order to facilitate comprehension. However, Shamash, (1990) and Auerbach, (1993) report that there are critics who argue that using L1 may slow language acquisition. Based on other researchers, I also believe that one should use the L1 in the classroom when necessary (i.e. to clarify meaning). Thus, the learner may become more confident and motivated (Friendlander, 1990). Based on their past learning experiences, given the opportunity to use L1 in the classroom, students might want to speak in the L1 all the time since it is easier than in L2. Thus, students may get accustomed to speaking in the L1 and disregard English. Many students focus on mastering content and neglect their language skills while the ESL instructor struggles to balance the roles of language and content. This may be problematic too, for as in the SAU context, the English language is not emphasized. Thus, ESP teachers and MB teachers may be well advised to consider both English and MB with equal attention.

The status of English as perceived by the participants in the classroom is crucial. It was perceived by the students in the pilot study as irrelevant and insignificant in comparison to the mainstream subjects. EC2 and BC noted that if collaboration were to take place, English would regain its status as an important subject. This is an important issue as English is the key to educational growth and technological development (Al-Khayaal, 2007). If it is not recognised by the medical students as a relevant language, educational growth and the development of technology may not progress within the discipline of Medicine in Saudi Arabia. The problem could remain stagnant for years.

ESL teachers, as data in the past and current literature reveal, have not gained a secure position in the workplace when it comes to collaboration with content teachers (Spack, 1988; Brinton, 2001). Auerbach (1991) and Jacobs (2007) advocate giving ESL teachers equal status with content teachers. I believe this to have great value, since both are contributing to

students' demands and learning needs. The marginalisation of the ESP teachers and the control assumed by the MB teachers are exhibited in these findings and mirrored by previous research (Creese, 2005; Jacobs, 2007). There is consensus among current researchers that ESL teachers should gain equality of professional status within the academic community (Barron, 2003; Arkoudis, 2006). Nevertheless, the goals of both departments vary. MB teachers tend to be demanding and authoritative in their expectations, and expect ESP teachers to facilitate their demands, and provide sufficient practice for content learning. This is where the paradox lies: MB staff appear to want collaboration but in fact still assume the role of the expert in comparison to the facilitator. The ESP teachers are viewed as facilitators and not to be treated as equal professionals.

The data also reveals tensions and inner conflict between the departments due to their lack of communication. Interpersonal issues were reflected in the teachers' resistance to interact with certain other teachers (Davison, 2006), and to have some suspicions of them. This highlights the significance of open communication. Without it, there can be no progress (Iancu, 2002). Current rumours are making the ESP teachers distant and angry. Both they and the MB participants need to open channels of direct communication, and enter into dialogue on their common problems. This is an essential element in any collaboration. It appears that the MB department disagree even among themselves, because they have different perceptions regarding students' writing needs and collaboration. BT2 raised her concern over working with those in her own department.

As for the goals of the teaching of writing, the participants also differ here. The main goal put forward by the MB teachers was their demand for ESP teachers to concentrate on teaching English medical terminology and to focus on scientific writing. This suggestion should be taken into consideration, but what can MB teachers do so that students benefit equally from both English and MB? This is crucial if students are to apply and develop not only their medical knowledge but also their English in the MB classroom.

Teacher collaboration may appear to be useful in solving many student problems. However, there are other issues to be considered. Teachers need to be made aware of the importance of collaboration and its benefits. Fullan (1999) notes, bringing about change in education may not be easy. Specifically, these teachers have worked independently for many years and to communicate with colleagues on their students' writing problems and materials will require time. The issues of time constraints and resolving administrative issues with the men's

department, however, can be resolved if both departments are prepared to discipline themselves to communicate with each other.

In terms of the SAU organisation, the participants BC and EC1 had already displayed a sense of cooperation by putting forward a joint proposal. But this had been unsuccessful partly because the final decision-makers regarding curriculum change are men. There is no direct reference in the data to the fact that men are the central figures in decision-making, but the voices of the women indicate powerlessness amid a centralised male-dominated organisation. Finally, administrative issues were highlighted by the DH as issues to consider in the future, particularly regarding time constraints, and making the participants realize the importance of meetings between departments.

7.3 The contribution of this study

This is the first case study to investigate issues of collaboration between teachers in the SAU context. Teacher collaboration is still a new phenomenon in Saudi Arabia. As mentioned previously, some integration has taken place in Oman (Flowerdrew, 1993), but not in Saudi Arabia. A case study specifically on first year medical students' English writing needs in Saudi Arabia has not been carried out before. Issues on collaboration will not only be relevant in this context but could be applicable to other neighbouring faculties in the university and other Arab universities since they are all of similar culture and educational background. An insight of students' and MB/ESPs' perceptions of writing needs will help in raising an awareness of the various and similar views which as a result help in raising recommendation for the future ESP curriculum.

7.3.1 An in-depth awareness of medical students' writing needs (Students' and teachers' perceptions)

One of the intentions of this thesis is to provide an overview of the writing needs experienced by medical students at a tertiary level in the SAU in particular, in order to raise awareness of ESP teachers and curriculum planners on what to focus when designing a future syllabus. This will help avoid redundancy in what is being taught and sharpen the focus on minimising students' learning problems. The triangulation method has been helpful in obtaining a number of subjective perceptions regarding writing by enabling in-depth views of the writing component. The students had similar views to the ESP/MB participants on their lacks in writing skills in terms of vocabulary, sentence skills, grammar and ideas/conceptualisation.

The ESP/MB participants' hold similar views on their students' lacks and wants: insufficient reading, grammar practice and writing practice. The outcome is thus positive: staff and students both agree where the problems lie.

However, one distinctive feature that one ESP shared with MB teachers concerns the students' problem with writing scientifically. There is a possibility that students may not be aware of scientific genres since they are at a stage where they still have to cope with basic writing skills, and the knowledge that the ESP curriculum expects of them. The ESP staff/teachers want students to be provided with sufficient writing practice while the MB teachers raised different needs: comprehension of exam questions, content and writing or professional purposes.

The surprising data was that the MB participants had high expectations of their students regarding their writing needs. Their expectations also varied in other ways. The BCs' concern is content and comprehension of exam questions. Both MB teachers expected project work, and an awareness of scientific genres while the DM aims for only basic writing skills. The MB teachers' expectations are high and do not match those of their students who are still struggling with basic writing skills. The MB coordinator's concern is the students' comprehension of content and exam questions. She ignores writing. The different views forwarded by the ESP/MB participants indicate a drawback to collaboration for collaboration needs consensus regarding the selection of materials, setting goals and undertaking decisions about the curriculum in order to meet students' writing needs. There are bound to be challenges regarding collaboration (Hargreaves, 1992; Sagliano, *et al*, 1998), but generally colleagues may need compromise to resolve their problems.

7.3.2 A proposed model of teacher collaboration: SAU context

The other intention of the thesis was to investigate issues of teacher collaboration in order to make appropriate recommendations for change. By exploring the different models of collaboration, I arrived at a proposed model which has some of the features of the adjunct model and may be the most suitable for an Arab context. In the adjunct model, every teacher is responsible for teaching in a manner which suits her expertise. For instance, an ESP teacher could refer to an MB teacher for useful topics in the MB class to write about, or provide an awareness of scientific genres in MB, or familiarity with different types of questions in the MB exam. Thus, students have better practice in answering scientific questions. The MB teacher can help the ESP teacher by compiling a list of topics that they teach so the ESP

teachers can include examples while teaching writing, rather than relying on their own perhaps limited scientific knowledge, and by supplying supplementary materials. The features of the adjunct model mean the inclusion of additional EAP and academic skills, to ensure that students learn how to apply them and simultaneously improve their English (Snow and Brinton, 1988; Beasley, 1990). This would be helpful for weak students who need extra supervision.

The proposed model emphasizes communication to bridge the gap between the two departments where participants are given opportunities to share ideas and resolve differences. It focuses on equality of status for both ESP and MB teachers, and considers ways of assisting students at various levels in writing through sufficient practice and extra study skills. Although the adjunct model is applied to advanced students in secondary high schools in the United States, it may be applied in the SAU context at all levels in school as well as at tertiary level.

7.4 Directions and recommendations for changes in practice and for future research

7.4.1 Pedagogical implications

Recommendations for ESP teachers

ESP teachers need to consider the MB participants' views on students' needs to become more aware of the writing issues below the paragraph level (i.e. sentences, notes), scientific genres and writing for examination purposes. Without this knowledge, teachers will continue doing what they think is right rather than considering what the other department views as appropriate.

These skills will develop with extensive exposure to reading, as will the integration of skills provide ideas and background knowledge. It is important to consider that the integration of skills (speaking, listening, reading) will contribute to the development of writing (Oxford, 1997). An important point to make is that both ESP and MB teachers should be extremely patient in seeking positive responses from students regarding writing. For writing skills to become automatised, time is required (Cook, 2001; Anderson, 2005).

In terms of collaboration, ESP teachers may need to take risks in teaching content rather than opt out. ESP teachers also need to reflect on why MB teachers resort to using the L1 in their class without having to think about the status of English. In the end, the question must be put:

what does the learner need? If the use of L1 helps to facilitate understanding, then it is acceptable to use it.

Recommendations for MB teachers

MB teachers need to lower their expectations of students in regard to their English and not blame the English teacher for their students' weaknesses in writing. To better comprehend learners' language problems, MB teachers should have some knowledge of SLA (e.g. staff development seminars). Then, they would be able to comprehend the ESL students in the MB course and also consider their students' educational background. Thus, they should not have high expectations from the students. They need to be more aware of the importance of writing academically and professionally rather than solely focussing on content. This will encourage students to feel valued and consider the significance of writing and not taking the skill for granted. To incentivise their students, MB teachers need to grade their students' writing; and insist on them to take it seriously and to pay more attention to medical terms which might otherwise not be taken seriously.

MB teachers need to consider ESP teachers as equal professionals in the academic field. If this does not take place, there will be problems in the long-term otherwise ESP teachers will expected constantly to feel they are only facilitators of content for the MB teachers. They need to feel they are equally contributing equally relevant, academic knowledge to the academic community. Though there was no direct attributable quote indicating that the ESP teachers feel inferior, the researcher sensed that they feel they are only mere facilitators.

There is still that underlying struggle of ESP teachers with content teachers emerging from past literature and supported by my findings, but it is to be hoped that this issue would be resolved in the near future. Furthermore, Sagliano (1998) argues that the way to avoid some of the inevitable interpersonal conflicts is to have all faculty members realize and anticipate probable areas of disagreement early, to openly discuss them, and to outline ways to solve these problems in an amenable and professional fashion.

Recommendations for change in the ESP writing component

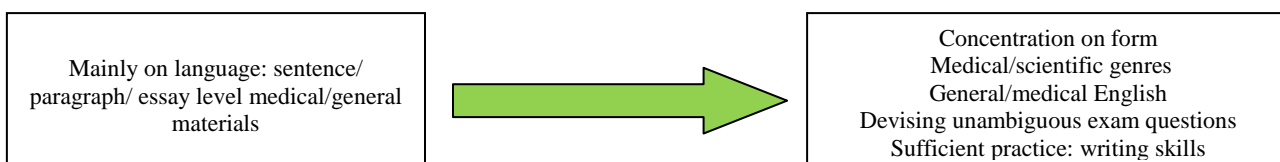
Generally, the current ESP writing component emphasizes writing in terms of grammar, spelling and sentence skills with a combination of general/medical/scientific materials. The proposed ESP writing component will focus more on: exposure of scientific genres and

writing scientifically using a combination of medical and general texts; exercises in comprehension of exam questions; and sufficient practice in writing skills. Figure 7-1 illustrates the proposed changes in the ESP writing component.

Figure 7-1 Proposed changes in the ESP writing component

Current Medics I/II writing component

Future Medics I/II writing



The ESP writing syllabus needs to encompass clear learning goals which will help the learner to focus on what is actually needed in medical writing. Textbooks should be developed to incorporate a variety of authentic contextualized materials and topics, including general and medical writing, and to devise suitable writing activities which develop the specific writing skills needed. Equal attention should be given to each part (i.e. the vocabulary, spelling, the grammar, etc..) of writing. This may require extra time and practice for some learners.

Reading should be given more emphasis in order to stimulate students' imagination. There should be an availability of general English books on diverse topics and a library set up specifically for medical students which provides scientific journals and materials. The different abilities and English competence of students may be problematic since appropriate materials and instruction need to be allocated to each. Extra-curricular activities should be provided for those competent students who need a greater challenge in their writing and extra classes for those who are weak should be held specifically for them. More class activities should focus on the generation of ideas and providing extra writing practice in the classroom. More emphasis will need to be placed on the awareness and writing of scientific genres that are implemented in the MB course. Through collaboration, there will be a sense of renewal in the working atmosphere through shared knowledge and materials.

7.4.2 Proposed changes: SAU administration

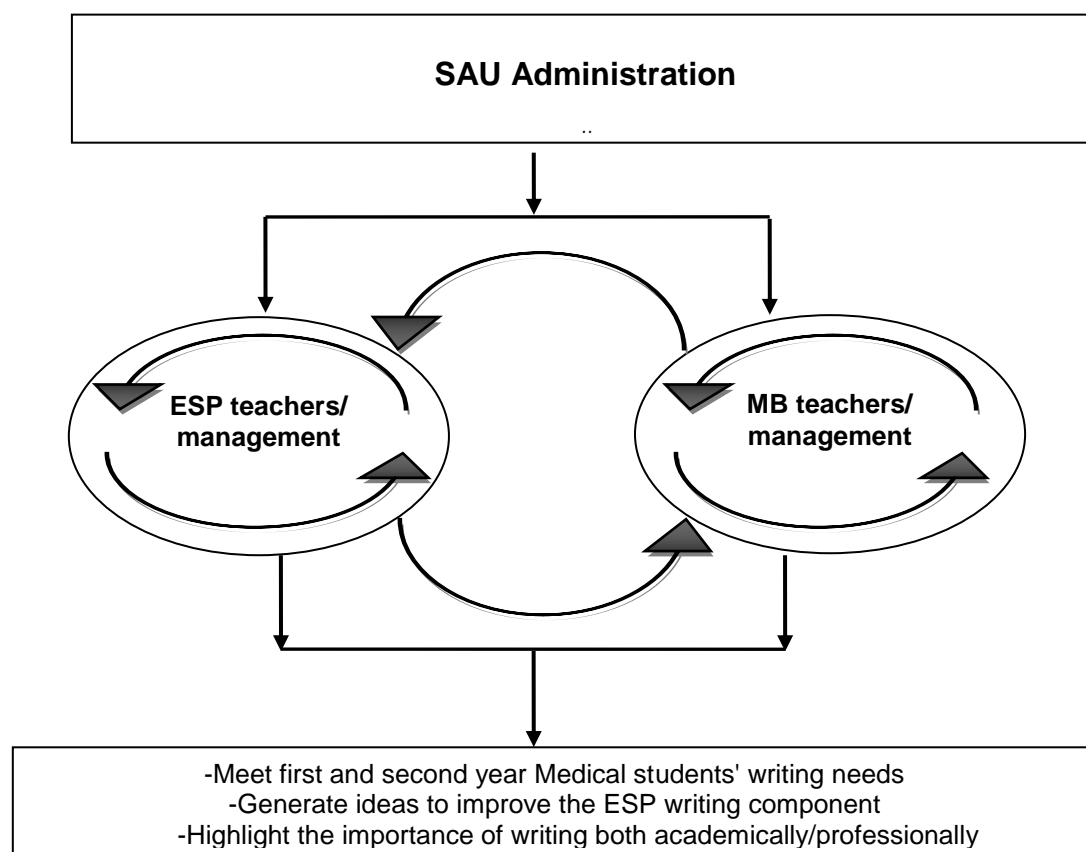
A participatory organisation may be recommended in the future since it would give opportunities to the rest of the teaching staff to cooperate in decision-making. Collegiality may be encouraged so that colleagues can positively work and benefit from each other

(Hargreaves, 1992). Both ESP/MB participants should also develop a sound understanding of the literature on collaboration and to communicate with those who have implemented it in the school or in higher education. This could be done in professional development workshops and in-service training programs. I suggest that collaboration is initiated on a step-by-step level expanding only gradually as change requires time to be implemented in the Arab culture.

It is the administrators' responsibility to introduce change, and encourage the different departments to socialize in organising workshops and training sessions to promote collegiality. Though there can be disadvantages to collegiality and collaboration, there are potential advantages (Vance and Crosling, 1998). Even if teachers want to collaborate on interdepartmental decisions, they are unlikely to do so since they are not used to initiating change and taking action without authority. But if change is initiated from above, collaboration can be implemented in a small-scale research and then gradually expanded.

Figure 7-2 notes the proposed administrative changes. It is recommended that the SAU organisation ought to focus on the following goals. It has to all initiate from the SAU administration. The SAU administration have to encourage collegiality and collaboration within departments and then move on between departments. If this is successful, hopefully the students' writing needs will be better met.

Figure 7-2 Proposed changes to the SAU administration



I recommend that women be empowered to make their own decisions rather than always having to refer to the men's department. This needs to be a shift from the present centralised organisation to a participatory and collegial organisation where women can act autonomously and in an atmosphere that reflect equal rights in matters. This would allow changes to be implemented faster.

7.4.3 Professional development and training

ESP teachers need to be trained by ESP experts (ESL professionals) or to attend inservice training workshops specifically on ESP writing methodology such as on encouraging students' reading so they can develop sufficient schema to draw on when they write. Professional development workshops for teachers should take place so that teachers can reflect on and improve their own practice. (Sagliano, *et al*; 1998).

Brinton *et al.* (1989) claimed that successful implementation of the adjunct model for CBI requires close coordination among teachers, staff and administrators. Energetic leadership and support by administrators is vital to the successful promotion of these approaches in any institution (Sagliano *et al.*, 1998). Nunan (1992) notes for collaborative teaching to be effective, teachers need appropriate training, support and adequate time in order to plan their programs. Thus, an organizing committee should be set up to initiate teacher collaboration within the university. This will require funding and support from the SAU administration.

For effective collaboration to occur, there should be teacher-based professional development such as action research and critical reflection, accompanied by extensive reading in areas to extend the understanding of specific theoretical concepts, accompanied by formal study in each other's area. This will enable teachers to be aware of each other's technical terminology (Davison, 2006).

7.4.4 Recommendations for further research

Research could be undertaken on writing difficulties through the collection of student' writing samples and interviewing additional participants to give a more in-depth detailed insight into the writing difficulties in the SAU context. To understand and evaluate the teaching of writing in context in English classes, and for writing in MB classes, further research study could be undertaken based on classroom observations. This was not possible in the current study due to cultural constraints, and the possibility that some teachers might have objected to being observed. But this may be possible in other places. Further quasi-experimental studies could be undertaken to evaluate student performance before and after writing practice and assess any changes that may result from this study. Evaluating the impact of teacher collaboration over a longer period, maybe over a whole year, would be beneficial too.

7.5 Limitations of the study

This section highlights possible limitations of the study. First, there is the limitation where male participants are excluded from the study. Second, some MB participants were reluctant to participate in the study. Third, the case study could not be generalised. Fourth, the reliability and validity of the questionnaire need to be carefully established. Fifth, there is the lack of sufficient time to allow an in-depth view of some of the interviews, and the presence

of limited responses of open-ended questions. Lastly, there is the lack of inclusion of students' writing and questions pertaining to the workplace needs to give comprehensive data of medical students' writing needs in the ESP setting.

For cultural reasons, this study was confined to female students, teachers, and staff as the men and women are not separated, and have separate administrative buildings. The researcher had very limited access to the men's departments. Had the male perspective been included in the study, it would have produced a more comprehensive picture of both the students' writing needs and teachers' perspectives regarding collaboration. However, accessibility was denied. Another issue was the reluctance of some MB teachers to participate in the study due to conflicting schedules, time constraints and syllabus demands. However, if other researchers carry out similar case studies, the findings may be compared and patterns emerge to allow for generalisations.

This study is further confined by the measurements used to assess student needs and lacks. Despite the high internal consistency of some dimensions of the questionnaire, others dimensions were found to be relatively low in internal consistency. Therefore, it would be advisable to establish the reliability of the questionnaire used in the current study were it be used in further research.

The types of questions posed in the questionnaire and the responses included in it imposed limits on possible answers. If the questionnaire in the current study is used in any further study, it would be advisable to include more optional responses. For example, allowing the participant to express a neutral point of view by amending the Likert scale options to include 'neutral' and 'rarely' for some questions.

This study is restricted by the willingness of the interviewees to provide in-depth data and by the questioning strategies used. Allowing more time for an interview and interviewing participants on more than one occasion may result in developing a better rapport with the interviewees. More use of "why" questions would be useful.

The number of participants who responded to the open-ended questions was fairly small. As stated earlier, 66 out of 267 students responded to the open-ended questions included in the questionnaire. Robson (1993) noted that use of open-ended questions may not result in sufficient responses. A strategy that may be worth trying is to separate the open questions and

distribute them independently from the questionnaire to allow the participants more time to think and respond to them. While this study assessed students' needs and lacks using questionnaires and interviews, future research may wish to take advantage of content analysis of student writing samples as this method could provide an in-depth view of writing problems.

Finally, while the study took account of students' perceptions of writing needs in terms of their necessities, wants and lacks, future research could consider including the needs of the workplace as this could provide a more detailed view of the needs of medical students in their professions in the future.

7.6 Concluding remarks

It is necessary to compile data regarding writing needs of medical students to take important decisions about future curriculum and syllabus change. It is through such analysis that an awareness of writing needs can be brought to light. Student perceptions regarding their writing problems, syllabus, activities, materials, pedagogy and exams in both English and MB are also examined to give a comprehensive picture of the writing component. Hopefully, consistent application of needs analysis will be conducted in future that the findings will illuminate pedagogic practice.

Gathering together the perceptions of the various staff regarding students' writing problems, wants and their views on collaboration, a comprehensive picture of both departments can be formed and consideration on how these departments can come altogether and cooperate in the future can be compiled.

Another element in this study has been the role of social constructivist theory and how it relates to teacher development and student learning. In analysing the data, particularly that from the interviews, the qualitative data, it is clear that there are many challenges to the social construction of learning in current practice and in this specific context of teaching English language writing to female medical students. There is little sense of either teachers scaffolding each other, let alone attempting to scaffold the students by providing the opportunity to model collaborative practice which might facilitate learning. There was also little evidence of assessing the individual students' potential ability or their zone of proximal development to maximise their individual potential. Without a cultural and pedagogic shift towards group work and collaboration, there may be little future progress.

Staff communication both interdepartmentally and cross-departmentally is crucial. Without it, there will be little progress. So far ESP teachers have heard rumours which make them distant and confused and staff in both departments should try to improve channels of communication. It may not be fully a successful communication, but those involved will at least know their respective positions. To meet their students' writing needs, staff must make a commitment to cooperate. Communication is an essential element in collaboration otherwise individuals will work independently and without sharing ideas or knowledge on how to improve their students' learning environment.

Researcher reflections

Initially as an ESP teacher, I thought that implementing change in the curriculum and how it could be delivered would be easy. My love of learning and taking action would allow me to implement drastic changes. Now after five years' of consistent reflection, weighing the pros and cons of every situation, I have discovered that teacher collaboration is in principle a good idea. But it has to be carefully and thoroughly studied, observing the immediate context, talking with different stake-holders and considering their perspectives. Moves towards collaboration have to be organized by effective policy-makers, with people who are genuinely committed to giving time and effort to implement curriculum change. Working in a difficult culture that is not used to working in teams or sharing ideas, I realise that it is not easy to convince colleagues that through sharing, it is possible to be more creative and innovative.

As Vygotsky notes, learning takes place through interaction. Through sharing knowledge, we learn and benefit from each other. Indeed, through teacher collaboration, teachers can break that hard wall of distance and learn to communicate with one another. At the end of the day, the learner will benefit through this invaluable exchange of knowledge. I cannot cause a major change immediately, but small differences do count in the pursuit of knowledge and education.

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9 APPENDICES

9.1 Appendix 1: Questionnaire for students

Dear student,

Assalamualaikum.

My name is Nadia Shukri, and I am writing to you in connection with some research I am conducting for a Doctorate program in Applied Linguistics at the University of Leicester, England. The research is on "Writing Needs for Medical Students." I would surely appreciate your cooperation, and the time and effort you give to complete the questionnaire. The purpose of the questionnaire is to investigate your perceptions of writing in English and writing in the Biology class; the results of the research will be used to help develop the writing skills of medical students in the future.

The questionnaire is anonymous and strictly confidential. If you agree to also be interviewed for this research, you should include your name, so that I can contact you, but this is voluntary and your name will remain confidential.

I would be most grateful if you would respond to all the questions, and give an honest answer. I anticipate that it should take you 20-30 minutes to complete the questionnaire.

Thank you very much for your co-operation.

The researcher,

Nadia Ahmad Shukri (ns122@le.ac.uk, or nadia _shukri@hotmail.com)

School of Education

University of Leicester

United Kingdom

Please read the instructions carefully.

A. Secondary Education. Please tick (✓) one.

☐

Government school

☐

Private school

B. Which level of English were you in first year Medicine? Please tick (✓) one.

☐ 1

☐ 2

☐ 3

☐ 4

☐ 5

The English Writing syllabus please tick (✓) one box for each statement.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	... is clearly explained by the teacher at the beginning of the semester.					
2	...has clear objectives.					
3	...clearly states the learning goals.					
4	...is relevant to the needs of the students.					

The writing requirement in Biology

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
5	... is clearly explained by the teacher at the beginning of the semester.					
6	...has clear objectives.					
7	...clearly states the learning goals.					
8	...is relevant to the needs of the students.					

E. The writing materials in English Writing statement. please tick (✓) one box for each

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
9	... are motivating and interesting.					
10	... are comprehensive.					
11	...are related to the Arab context.					
12	...develop writing skills.					

F. The writing materials in the Biology course statement.

Please tick (✓) one box for each

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
13	... are motivating and interesting.					
14	... are comprehensive.					
15	...are related to the Arab context.					
16	...develop writing skills.					

G. What kind of text do you think should be used extensively in an English Writing class?

Please tick (✓) one only.

- [] One that focuses on general English topics
- [] One that focuses on functional kind of writing (for example: fill out an application, write a letter, or curriculum vitae)
- [] Biology oriented text
- [] One that focuses on medical topics

H. Writing Tasks in English Writing

Please tick (✓) one box for each statement.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
17	...include looking at good models of writing.					
18	...are relevant and motivating.					
19	...provide opportunities for revision and correction.					

I. Writing Tasks in Biology

Please tick (✓) one box for each statement.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
20	...include looking at good models of writing.					
21	...are relevant and motivating.					
22	...provide opportunities for revision and correction.					

J. The English Writing teacher

Please tick (✓) one box for each statement.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
23	...provides clear instructions in developing writing skills.					
24	...allows for sufficient practice in the use of punctuation.					
25	...provides sufficient practice in developing the grammatical part of writing.					
26	...provides sufficient practice in spelling.					
27	...provides sufficient practice in developing sentence skills.					
28	... provides feedback on the writing homework.					
29	... provides extra help for the weak students in writing.					

K. The Biology teacher. Please tick (✓) one box for each statement.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
30	... provides clear instructions in developing writing skills.					
31	...provides sufficient exercise in writing in class					
32	...allows for sufficient practice before exam					

Writing Difficulties

L. What are your problems with writing? Please tick (✓) one box for each statement.

		Always	Often	Sometimes	Never
33	Using correct punctuation				
34	Using correct spelling				
35	Using appropriate vocabulary				
36	Applying grammatical rules to writing				
37	Forming sentences				
38	Expressing ideas in writing				
39	Revising your writing				
40	Establishing cohesion in writing				
41	Summarising in writing				
42	Synthesizing in writing				
43	Understanding instruction about English writing				
44	Understanding writing instruction in Biology				

M. What do you need most in order to help you write better? Please tick (✓) one only.

- ☐ Clear writing instruction
- ☐ Doing more writing exercises
- ☐ Effective writing materials
- ☐ Extra help in improving writing skills

N. The Writing section of the English Exam. Please tick (✓) one box for each statement.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
45	...is easy.					
46	...provides clear questions.					
47	...requires training in answering exam questions					

O. The Writing section in the Biology exam. Please tick (✓) one box for each statement.

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
48	... is difficult.					
49	... provides clear questions.					
50	...requires training in answering exam questions.					

P. Have the writing skills taught in the English writing has helped you in the Biology class?

Please tick (✓)one only. ☐ Yes ☐ No

If yes, how? Please explain your answer.

Additional information:

My intention is to explore further some of the issues raised in this questionnaire through interviews. Please indicate below if you are willing to be considered for an interview which would take around 20 to 30 minutes. Please (✓) tick one.

Yes, I am willing to be interviewed	
No, I would prefer not to be interviewed	

If yes, please give your: Name: _____

Contact telephone number: _____

Thank you very much for filling in this questionnaire.

9.2 Appendix 2: Interview Schedule for ESP Teacher

1

2 N: What do you think your first year medical student needs in order to write better?

3

4 L: I do believe they need more time to work with definitely and need to separate or
5 divide groups into smaller groups. 40 students is too much in a class to work with
6 especially in a writing class if when you want to work with them. And maybe we could
7 [select] more medical textbooks because until now we did not go through any kind of
8 medical terminology.

9

10 N: What do you think are the most common and difficult problems that your
11 students face in their writing class?

12

13 L: They do have a problem in thinking in English. They normal think in Arabic and
14 they translate their thoughts into English. They try to find the right words but it turns to
15 be a different meaning. You get some weird meanings because you know how to read in
16 Arabic. You know in Arabic that they just translate their thoughts and that is a problem.
17 Another problem they do not pay attention to way of [connecting] grammar in
18 vocabulary... They don't apply it. What they take in grammar they keep it for their
19 grammar class. What they take vocabulary; they keep in it in their vocabulary class.
20 They don't apply it in their writings.

21

22 N: Do you get a chance to apply it in your teaching?

23

24 L: That is what we normally do in the CA hours with them and some extra hours if
25 there is enough time.

26

27 N: What do you mean by CA?

28

29 L: CA is classes the students take three hours in the intensive phase just work with
30 them in the first six weeks.

31

32 N: Just in the intensive phase?

33

34 L: In the first six weeks.

35

36 N: Based on your experience teaching the writing class, what do you think your
37 students need to do or should do in order to improve their writing skills?

38

39 L: They need to write far much then they are doing now. They need to apply what
40 they are taking. They need to write more. Because we are not teaching English... we are
41 teaching writing. So we expect them to know the vocabulary to use to have the base of
42 English when they do not have that.

43

44 N: How do you perceive the textbook? Does it help in developing the writing skills
45 of the students?

46

47 L: First book: It is a very nice book in teaching writing and grammar. Both subjects
48 what we are giving in grammar is almost what we are giving in writing, so normally it is
49 very nice. But there isn't time to complete everything.

50

51 N: Which part of writing you find it difficult to teach to your students?
52
53 L: [The difficult part] actually when they are writing to give information in facts;
54 not as a narration or a descriptive paragraph. When you give them a descriptive
55 paragraph or narration. They do fabulous really.
56
57 N: What do you mean by narration?
58
59 L: Narrate a small story. They are good at that. It is just scientific terms.
60
61 L: They had a chapter in herbs and acupuncture. They were supposed to write
62 about one of these topic was awful. It was awful. The writing was not good enough.
63 They did not have enough vocabulary. They were writing their opinions. They won't
64 write facts. They were writing stories and they are not writing definitions or facts.
65
66
67 N: How about any guidelines?
68
69 L: We showed them how to write a paragraph. And we worked on topic sentences
70 and we worked on separate sentences. And we worked on diagrams to help them write
71 but unfortunately the information is there but they can't connect their sentences well.
72 They can't put it in a typical formal form.
73
74 N: What kinds of supplementary exercises do you give to your students who are
75 weak in writing? Or how do you help your weak students to improve their writing
76 skills?
77
78 L: Free writing or diaries?
79
80 N: How do you feel about sharing ideas or working together with content teachers
81 in teaching writing skills to your students?
82
83 L: I never thought about it. There was an MB teacher who came in the beginning
84 of the semester and asked to do something like that [cooperation]. She wanted to take
85 over the class and not share.
86
87 N: Take over.
88
89 L: She wants to give Biology.
90
91 N: What do you think cooperating with the MB department?
92
93 L: If we have the same goals. If I could really give writing and not Biology, yes
94 that is nice but turning to be a Biology teacher. That won't be very nice.
95
96 N: You mean you want to concentrate on the skills of writing and not on Biology?
97
98 L: Definitely, not on Biology vocabulary.
99
100 N: What do you think about (collaborating) with the content teachers in terms of
101 developing and adapting materials and preparing exam questions?
102

103 L: Again, it depends on the personality and it depends on the goals pouring in the
 104 same direction.
 105
 106 N: How do you feel about doing team teaching with the content teachers in your
 107 writing classroom? Team teaching is like working together in the same classroom.
 108
 109 L: I do not know but what I did with Maha is that we worked together on a small
 110 project for students on the internet. It worked quite well
 111
 112 N: Project for what?
 113
 114 L There was something throughout the internet. They needed to choose a topic.
 115 They needed to do a presentation for Maha's speaking class. I was concerned with the
 116 writing and the summary.
 117
 118 N: Was it good?
 119
 120 L: It was fine, 70 did it supposed to be. 30 got out of it. They tried to play
 121 games/tricks on us. They found a way out. Because it ends up with two and a half marks
 122 out of a 100, so it is a lot of work.
 123
 124 N: Do you wish to meet with the content teachers at regular intervals to see whether
 125 you have met students' needs in writing?
 126
 127 L: Again, if we have the same goals.
 128 N: What are the challenges do you foresee in working with content teachers?
 129
 130 L: To understand that English is an important subject. If they are aware of that,
 131 then it is a bit hard.
 132
 133 N: Hard?
 134
 135 L: It is hard to make them believe that if students to understand English so they
 136 could understand physics, Biology and chemistry. Because all of their textbooks are in
 137 English. So if they do not have the language they can't understand what they are doing.
 138
 139 N: So you are saying to make them more aware of English as equally important?
 140
 141 L: Yes. To find out the ESP teachers' expectations regarding the writing needs of
 142 students.
 143
 144 N: What do you hope your students to fulfill in writing in the first year in medicine?
 145 L: Hopefully, by the end of the first year I hope they can write a well organized
 146 paragraph, well written paragraph. They should have some knowledge of writing in
 147 general in understanding topic sentences, narration, descriptive sentences and
 148 compound sentences.

1 **9.3Appendix 3: Interview Schedule for Students**

2
3 N: What problems are you currently experiencing in writing?

4
5 H: Since we came, maybe my English is not bad I like writing in English. I write
6 poems. The problem is that we have to write in a scientific way and we are not
7 used to do that. This is the main problem. The rest is normal.

8
9 N: Do you mean you need more practice?

10
11 H: Yes, I need more practice in the scientific way. In the Biology exam, I started
12 to write the essay. I feel my writing is not scientific at all. I am sure this is not right.

13
14 N: What do you think is the most difficult part in writing?

15
16 H: Spelling is alright, I am level five that is why I wanted to be Ms. Besma,
17 (Group 4) I learn a lot from her. The course in English, I only benefitted from
18 Chabner. I attend the reading and Chabner. We practise with Mrs. Mona for two
19 hours speaking in English.

20
21 N: What do you think you need in order to write better?

22
23 H: What I do want from the university is a higher level of book. I believe in more
24 presentations, and more research to improve in Arabic and English. I believe these will
25 improve the language.

26
27 N: Do you feel the English writing class has helped you help you with the
28 writing you need to do in your Biology class? If yes, how did it help you? Please
29 elaborate. Short essays?

30
31 H: To some extent, we are just practicing the language. The course English is useful
32 only in Chabner. There is nothing new in writing. We are just practising the language.
33 We have to take it more serious the scientific writing.

34
35 N: In what way?

36
37 H: We have to take it more serious and learn the scientific writing.

38
39 N: The first term is the Chabner?

40
41 H: I can write, but my writing is not scientific. I like to write. First, summary, they
42 did not explain to me. They did not teach us in a proper, scientific way.

43
44 N: What do you think of the scientific writing?

45
46 H: When the person writes from a creative angle, the individual thinks carefully of
47 what to say and of the style. Unconsciously, you will write beautifully. But the
48 scientific ways conveys practical information; it is not important that you convey in a
49 beautiful style. The Arts book differs from a scientific book. When you write in the
50 Arts way, you have to make it sound nice. For instance, such as Shakespeare/Dickens.

51 I read a lot of scientific papers. We do not practice in a scientific way. In Biology we
52 are not practicing at all.
53
54 N: Are you capable of writing short answers in your Biology classes?
55
56 H: No problem.
57
58 N: Are you capable of writing short paragraphs in your Biology classes?
59
60 H: I can write but it is not scientific.
61
62 N: Do they ask you to define?
63
64 H: The individual writes in an arts way. If you like writing, the words sound nice.
65 The scientific way gives me certain information, and not turn out nice in the end.
66
67 N: Direct? Practical?
68 N: Do you feel you have had sufficient practice in writing for your Biology course?
69
70 H: No.
71
72 N: Do you know clearly what is expected of you to write in the Biology class? Why
73 do you write?
74
75 H: The objectives for writing in everything in both subjects are not clear. No, we are
76 not learning to write it in a proper, scientific way.
77
78 N: Does the teacher provide models in the exam?
79
80 H: Yeah, sometimes. They tell us orally, they don't show us how to write.
81
82 N: Do you need training in Biology exam questions?
83
84 H: Yes, they always tell us in the paragraph, how can the question in the exam be.
85 The teacher states orally such as this paragraph is important in the exam. They do not
86 explain how to write.
87
88 N: Do they explain?
89
90 H: No, they do not explain.
91
92 N: Were you given any training in the exam?
93
94 H: No, we are going to have one exam out of 5, and maybe two short essays.
95
96 N: What do you think of the Study Guide in Biology?
97
98 H: I looked at it. It is complicated to follow. It is not easy to follow. It is not
99 organized.
100
101 N: What do you think it is a good idea to have in English study guide?

102 H: I believe in the study guide. It needs to be simple and well explained. I don't want
103 something complicated. The English is the most organized subject and it is better than
104 Biology. I was thinking about this subject. These sheets relating to English are useful.

9.4 Appendix 4: Sample of Examinations (Medics I)

Part V WRITING

A. Write a paragraph from the information given to you.

The liver

Definition	:	- largest / gland / body
Shape	:	- triangular
Location	:	- abdomen / right side / diaphragm / rib cage
Functions	:	- digestion / food - excretion / bile - synthesis / proteins / other substances - storage / glucose / form / glycogen - neutralization / poisons
Effect		- liver / essential / life /
Cause		most urgent / function / keep / steady / concentration / glucose / blood
Effect		- brain / quickly / die /
Cause		if / supplies / glucose / from liver / cut off ✓

SECTION - IV ESSAYS :

(10 Marks)

1. Write shortly on the absorption and transportation of fatty acids and glycerol. (3 Marks)
2. Compare the structure of hyaline cartilage with that of bone. (Use properly labelled drawings). (3 Marks)
3. Describe the stage of meiosis I, and explain how it is different from mitosis. (4 Marks)

PART V WRITING

Write a composition on this topic based on the ideas and the illustration given below. Make sure you use the verbs in their correct grammatical forms and write the words with the correct spelling.

Bronchoscopy



Bronchoscope

Definition	a simple technique - pass a hollow tube down trachea
Purpose	inspect bronchi remove foreign matter
Procedure	general or local anesthetic instrument passed with extreme care avoid tears to mouth and surrounding tissues avoid damage to teeth to be removed from struggling patient forceps passed down - remove foreign bodies aspirate foreign matter if soft keep field clear of blood by suction avoid impacting foreign body more deeply
Results	leisurely inspection of bronchial orifices aspiration of secretions
Indications	inflation of affected lobe or lung essential diagnostic procedure - carcinoma of bronchus suspected case of intrabronchial foreign body - confirm diagnosis - withdraw object case where benign tumour has been removed - advisable - to detect recurrence