ESP, An Evaluation of Available Textbooks:

'_Medical Terminology_'
(By: Barbara Johnson Cohen)

BY:

Ramin Rahimy (Ph.D. Candidate of TESOL)

In Honour of :
M.H. Tahririan (Ph.D.)

Department of English Language
Islamic Azad University at Tonekabon

January 2008
Tonekabon-Iran

ABSTRACT

In the present study, a textbook on medical English has been evaluated based on a number of criteria mentioned in the Iranian Curriculum for Medical Science (English for General Practitioners, English for Nursery and English for Midwifery). The material is designed for specific use by Iranian university students of medical science. Also, the compatibility of the content of the material with the Iranian curriculum/syllabus has been discussed. The rationale behind such study is that there are many factors to be taken into account when evaluating materials for use with speakers of other languages. These include genre analysis, contextualisation, culture, lexicon and finally grammar. An attempt has been made here to give rather objective criteria in a numerical form for any further justification or decision.

INTRODUCTION

1. The Ground

The teaching of English for Specific Purposes (ESP) has since the 1960s and been a lively stimulating part of English Language Teaching (ELT). It has been generally acknowledged that, while remaining a part of ELT, ESP has developed its own procedures, such as needs analysis, its own materials and its own teaching methodology (see discussion of this point in Dudley-Evans and St. John, 1998).

The emphasis in the definition of ESP has been on how ESP teaching develops procedures appropriate to learners whose main purpose is learning English for a purpose other than just learning the language system. That purpose may be educational, or may be professional, and ESP seeks its justification on how well it prepares learners to fulfill the purposes required of them. ESP has seemed to shy away from developing an elaborate theory based on a theory of learning preferring rather to see its successes in terms of learning outcomes, and the quality of teaching materials.

Nonetheless no set of procedures for teaching language can exist separate from a view of language and of how learners learn that language. ESP developed in parallel with the development of communicative approaches to language teaching and it is arguable that CLT has found a natural home in ESP. The discipline imposed by needs analysis and the importance of awareness of learners' needs make a communicative approach b a s ed on learner and learning needs (Hutchins on and Waters, 1987) absolutely essential. Yet attempts to define ESP through the communicative nature of its teaching often lead to a questioning of the difference of ESP from English for General Purposes. The argument arises about whether ESP is a truly distinctive branch of ELT if it is essentially a type of CLT with perhaps a greater sensitivity to needs.

A much more promising approach to a theory of ESP comes from the analysis of ESP texts. In the same way as the teaching procedures of ESP are linked to a view of language and learning, all ESP activity has to be linked to a view of text. ESP has in its brief history adopted various approaches to text analysis, from the early register analysis associated with the identification of key grammatical elements of scientific communication (Barber, 1962, Swales, 1971) to rhetorical analysis and finally through functional/notional approach. The value of all these approaches to text analysis are that they begin from the idea that the texts used in particular specialist environments, whether that be academic writing, business or other professional activity or wherever the ESP need lies, have particular characteristics that distinguish them from other texts and from the generalised summaries of linguistic features that arise from an approach to text analysis that uses a corpus of differing texts.

The work of rhetorical analysis first introduced the idea that grammatical features found in specific contexts, such as an academic textbook, might follow rules that in certain subtle ways differ from the general rules as set out in general grammar books. This work also stresses the predominance of rhetorical considerations in determining grammatical choice. The notional/functional approach at its best still strikes me as a very fruitful method of bringing together lexical items that co - occur naturally, i.e. verbs such as consist of and contain, with passive constructions such as attached to, connected to, mounted on in describing the notion of **Structure**, or items associated with the notion of **Quantity**, such as adequate, sufficient, enough, too much, excessive etc. The findings of genre analysis, however, bring together the insights of these earlier approaches to text analysis, but also a greater sophistication in the examination of writers' purpose.

We have noted differences in the use of epistemic modality between genres (academic article v. popular science article, and academic article v. textbook) and between different disciplines. Bloor and Bloor (1993) have taken this kind

of analysis a stage further in that they noted a very interesting difference in the use of hedging devices within one genre and one discipline. They found that in economic articles published in that discipline's most general academic journal The Economic Journal writers were either making claims that were related to the real world (field central claims) or claims that were related to issues within the discipline itself (substantive claims). Bloor and Bloor noted that the substantive claims tended to be hedged while field central claims were not.

What is becoming clear, however, is that disciplinary variation is much more significant than allowed for in the original work on genre analysis. We need to devise a theory that goes beyond the ideas of prototypicality to acknowledge that variation in the discourse structuring of genres   reflecting different epistemological and social practices in disciplines is a key factor in genre theory. The danger is that the theory will become immensely complicated with a proliferation of genres for each discipline. It could be, however, that the simplicity of Martin's model (Martin, 1989) which places **register** between **genre** and **language** in the hierarchy, as in the diagram below, will capture variation without over-complicating the theory: (PLEASE NOTE THAT WE NEED TO ADD ARROWS FROM GENRE TO REGISTER TO LANGUAGE) <u>**Genre – Register – Language**</u>. This system allows us to account for differences in discipline and between form a l academic papers and those in popular journals through the use of Field and Tenor, two of the three components of register in the Hallidayan system (Halliday 1985).

The aim of this article is to evaluate one of the current Iranian publications prepared as a textbook for a course of Medical English for the students of medical science. In the Iranian Azad university where the study has been done, the mentioned book is being used both by the students of medical practitioner's and by the students of nursery as well as midwifery. In two or three sections later, we will elaborate on the needs analysis of the Iranian students of medicine. However, it can be noteworthy to have a glance at the characteristics of a textbook of medical English.

2. Of Medicine and English Teaching:

It is often stated that Medicine is the king because medical technology is so powerful. This is wrong. Medicine was the king long before medical technology had any serious scientific power. The American Medical Association was founded in 1847, when life span was about 40 years. The causal connection in this case is backward. Medicine controls powerful scientific technology because it is the king of professions. Medicine was organized first. They laid the first legitimate claim over medical technology, and subsequently, medicine has gotten first claim to all new medical technologies. The battle between medical professionals and other organizing professions over claims to new discoveries is fascinating. Medicine did not have any historical or scientific reasons to dominate X-ray technology or clinical care. There were occupations dominating child birthing long before Medicine ever had anything useful to say. But Medicine became the king of professions because it organized first and from then afterward, any other occupation that wanted to control medical technology could only do so if Medicine did not first want that control. Pharmacists may make, dispense, and understand drug action, but ONLY a physician can prescribe them.

What's all this got to do with English teachers? It seems a lot, and particularly a lot for those of us who teach EFL. Long before EFL in Asia became a major employer of education professions, there was a hierarchy of educators that included post-secondary and public school literature and grammar teachers, as well as private cram school teachers. The division of educational labour divided the known teaching work world between all the recognized parties in a way that balanced and made sense to those involved. The lifting of military law and development of the economy made possible the expansion of a traditional form of education formerly reserved almost exclusively for the wealthy: foreign teacher instruction. The privileged position of this market and its relative smallness had left it largely unregulated. As a result when it expanded, the only regulatory bodies, that were in any position to control them, were those monitoring labour and migration.

Lastly, one significant point is that the lingua franca of medicine, and most scientific fields, is English. The world's most widely cited medical journals are published in English. As such clinicians and researchers whose native language is not English must learn it to avail themselves to the large body of medical knowledge published in English.

THE SPECIFICATIONS OF 'Medical Terminology: An Illustrated Guide'

'Medical Terminology' is a book with an introduction to the study of medical language for Iranian students of Medical Science (here the Islamic Azad University at Tonekabon). The language of instruction in the book is English. The book is aimed at being used as part of classroom introduction, for independent study, or for distance learning. The anatomic and clinical terms related to each body system have been taught to the students through word analysis and labeling exercises. After doing the exercises, the learners can check responses with the answer keys and verify progress with chapter reviews.

The author of the book has provided the learners with many learning aids. Some objectives have been determined at the beginning of the book chapters that can be used to guide and measure learning. There has been a great focus on the word parts that are used in medical terms. There are also clear definitions for the terms. A number of learning aids such as crossword puzzles or flashcards have been provided as well. To help with the exercises, the glossary has complementary lists of word parts and their meaning. A comprehensive list of abbreviations with chapter references has also been included.

As for satisfying the phonological requirement of the students, the book has been equipped with audio-tapes exercises for pronunciation. For teachers of the book there is a set of colour transparencies of both normal and clinical illustrations taken from the text. Also a test bank is available in both computerised and printed forms, that includes various questions that can be sorted according to chapter, question style or subject. There is also a revised and expanded Teacher's Manual.

In short, the expanded content of the mentioned book can be summarised as follows:

Part1: Introduction to Medical Terminology

1. concepts of medical terminology

2. suffixes

3. prefixes

4. cells, tissues, and organs

5. body structure

6. diseases

7. diagnosis and treatment; surgery

8. drugs

Part2: body systems

9. circulation; the cardiovascular and lymphatic systems

10. blood and immunity

11. respiration

12. digestion

13. the urinary system

14. the reproductive system

15. development

16. the endocrine system

17. the nervous system

18. the senses

19. the skeleton

20. the muscular system

21. the skin

Glancing at the chapters of the book, one can conclude that in each chapter, the concepts have been presented in a number of forms. Table 1 summarises the concepts: tasks and language components:

Language Tasks	Grammar	Lexicon	Pronunciation	Illustration
Word parts		*		
Combining Vowels			*	
Word derivation		*		
Illustrations				*
Exercises	*	*	*	*
Case studies		*		*
Glossary		*		
Puzzles		*		
Flashcards		*		
Audiotapes			*	
Pronunciation			*	

Table 1: The content of the book (tasks) as compared with the language components in the book under question.

Table 1 indicates that about 9.1% of the tasks used in the book contain grammatical points, 63.5% lexicon, 36.4% pronunciation practice and 27.3% the illustration section. These figures can best be displayed on a graph for our further judgements concerning the compatibility of the book with the Iranian curriculum for Medical Science:
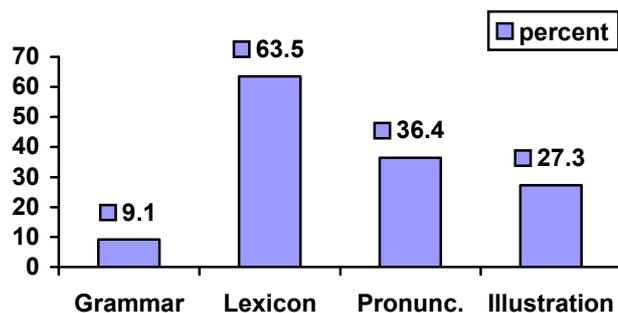
Figure 1: Language percentage graph in the book
"Medical Terminology"

Also, the relationship between the content of the book and the four language skills will be presented in table 2 as follows:

Tasks \ Language skills	Listening	Speaking	Reading	Writing
Word parts			*	*
Combining Vowels	*	*		
Word derivation			*	*
Illustrations			*	
Exercises	*	*	*	*
Case studies			*	
Glossary			*	
Puzzles			*	*
Flashcards			*	
Audiotapes	*	*		
Pronunciation	*	*		

Table 2: The relationship between content of the book and the
four skills of language.

Table 2 indicates that about 36.4% of the tasks used in the book focuses on the listening skill, 36.4% on the speaking skill, 72.8% on the reading

comprehension skill and 36.4% on the writing skill. These figures can best be displayed on a graph for our further judgements concerning the compatibility of the book with the Iranian curriculum for Medical Science:
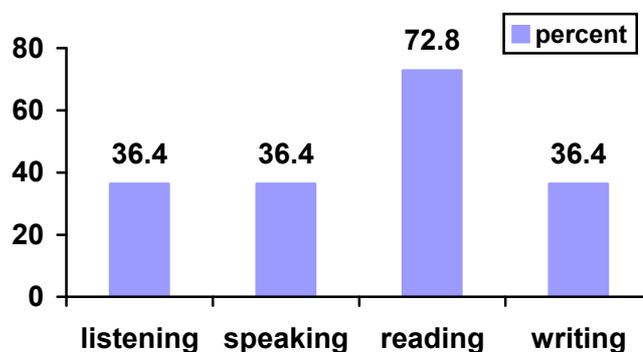

Figure 2: Skills percentage graph in the book
"Medical Terminology"

As the graph indicates, the skill the book has focused on more is the reading comprehension skill. It is clear that the other three skills have been dealt with in the book more or less the same. However, in order to find out whether and how much the statistics presented here is compatible with what exists in the Iranian curriculum as well as the needs of the Iranian students of medical science, nursery and midwifery, there should be a comparison with the mentioned curriculum and the syllabus. Hence, the compatibility of the book content and how it is divided and used for the Iranian students of Medical Science, Nursery and Midwifery can be determined only after we present a list of objectives and purposes of such curriculum. Thus, what is going to be discussed next will be the details of the Iranian curriculum of the medical science, nursery and midwifery.

THE IRANIAN CURRICULUM FOR MEDICAL SCIENCE

1. English for General Practitioners:

The scope of medical science assumed in this study consists of the General Practitioner's, the Nursery and the Midwifery for which learning English is a requirement. In the English for General Practitioner's, there are 2 three-credit

(51 hours) courses of medical English. The pre-requisite for this are 2 two-credit courses of General English in which the students get familiarised with the basics of English language such as grammatical points and the four skills of language particularly the reading comprehension skill.

During the first course, the text types for classroom activities or as home assignments are selected and introduced by the teacher. Here, the first 120 pages of the book titled, "The Physiology of Human Body" written by Guyton have been approved and suggested by the Department of Medical Science, and the teacher is usually a physician who is excelled in English language specially medical terminology.

During the second three-credit course of medical English, the text types selected should be more complex than the text types in the first course. The complexity may be in terms of lexicon, grammar or culture. They should be arranged and adjusted in such a way that they cover the 51 hours of the whole course.

The evaluation procedure consists of at least two methods: on the one hand the teacher can give the students seen or unseen texts and ask them to translate the texts into fluent Persian. Here, the students are required to use Persian medical equivalents instead of their English correspondent terms. On the other hand, the teacher can provide his/her students with texts for reading comprehension and ask them to answer multiple-choice or essay-type questions after a careful reading of the texts. Thus, the students' knowledge of medical terms can be tested through recognition or production of such terms.

2. English for Nursery:

According to the curriculum prepared by The Iranian Ministry of Science, High Council of Planning, the purpose of ESP for the students of Nursery is their familiarity with scientific texts and sources as well as the lexicon and necessary expressions related to Nursery. Also, the goal is to achieve the ability

of understanding nursery concepts and to employ scientific books and research journals published on nursery in order to increase the level of professional knowledge.

The syllabus related to the above-mentioned curriculum consists of the following key concepts:

1. An introduction to common medical abbreviations

2. Affixes (prefixes and suffixes) common in medical English

3. Correct use of dictionaries

4. Reading Nursery scientific texts with a logical speed while understanding

   its fundamentals and the basic tenets.

5. Correct spelling of medical words and expressions

6. Translating and summarising Nursery scientific texts

3. English for Midwifery:

The purpose included in the curriculum and also the syllabus are nearly the same as what was mentioned for the Nursery section. The only difference lies in the specificity of the terminology, that is, the focus is on midwifery terms rather than the nursery ones although both nursery and midwifery have a great number of terminologies in common.

CONCLUSION

The Compatibility of the Book with the Curriculum:

The content of the curriculum can be summarised in table 3 as follows:

Curriculum \ Language Skills	Listening	Speaking	Reading	Writing
Abbreviations			*	
Affixes			*	
Dictionaries	*	*	*	*
Reading Speed			*	
Spelling				*
Translation			*	*
Summarisation				*

Table 3: The content of the Iranian Medical Science Curriculum and its relationship with the four language skills.

The table shows that about 14.2% of the curriculum content has been devoted to the listening skill, another 14.2% to the speaking skill, 71.4% to the reading comprehension skill and finally 57.1% to the writing skill of language. The figures can be best interpretable in a bar graph as follows:
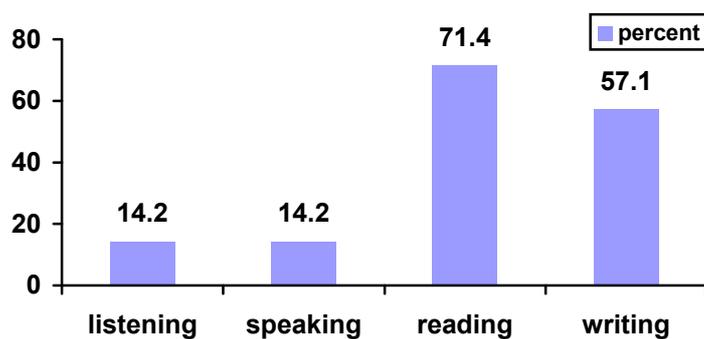

Figure 3: Skills percentage graph in the Iranian Curriculum

Now, in order to make a comparison between the percentages of the content of the book and that of the curriculum, we should take help from another graph that will juxtapose the results of the study:
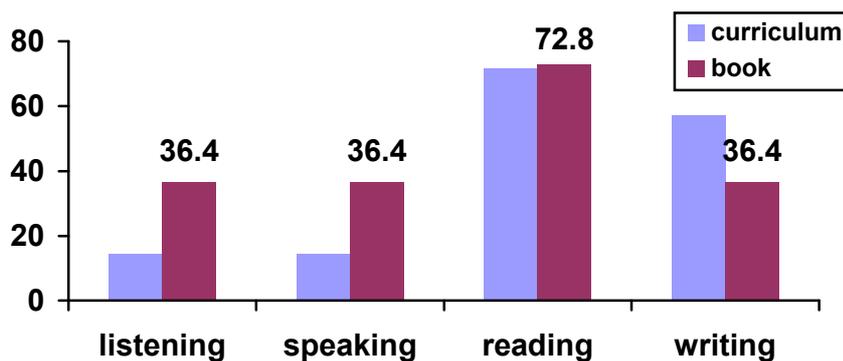
Figure 4: The graph that shows the degree of compatibility between the content of the book and the content of the curriculum

As the above-mentioned graph demonstrates, in two of the language skills, the content of the book "Medical Terminology" and the objectives of the Iranian curriculum for medical science courses are approximately close to each other: concerning the reading comprehension skill, the book seems to have nearly 100% compatibility because on the one hand the skill is among the instructional objectives of the curriculum, and on the other hand, it is focused in the book to a great extent. Also in writing, there is a very close compatibility since the book covers most of the issues determined by the curriculum. However, the curriculum demands more.

Listening and speaking have not been focused by the Iranian curriculum. This can be originated from a number of reasons: one reason may be the type of the entrance exams to achieve a higher education, in which the tests are usually on the reading or the writing abilities and less on listening or speaking skills; another reason can be that the curriculum designers have decided on such skills based on the educational situations, students' native language, their learning conditions or even the type of the activities they consider appropriate in order to master the system of medical terminology.

Accordingly, it can be concluded that the book titled "Medical Terminology" is not a completely appropriate book for the purpose of medical English in Iranian universities, but its advantages where the content and the curriculum objectives are compatible cannot be ignored. It is suggested that the

book be supplemented by extracurricular teaching aids such as other pamphlets, audio-visual aids, etc. Focusing on the other two skills of language, the listening and the speaking, should be considered by the authors of ESP books or at least by the teachers of such materials.

REFERENCES:

Alderson I., J. Charles 1992.**Evaluating Second Language Education**. C.U.P.

Chastain, K. 1988. **Developing Second Language Skills.** B.J.I.

Cohen, B. J. 1998. **Medical Terminology**. Lippincott-Raven Publishers.

Garinger D. 2002. **Textbook Selection for the ESL Classroom**. Eric Digest

Harmer J. 1998. **How to Teach English**. Longman.

Hutchinson, T. & A. Waters. 1987. **ESP**. Cambridge University Press.

Johnson R.K. 1989. **The Second Language Curriculum**. C.U.P.

Jordan, R.R. 1997. **English for Academic Purposes**. C.U.P.

Widdowson, H.G. 1978. **Teaching Language as Communication.** O.U.P.