## Journal of Human Sciences Oum El Bouaghi University

ISSN 1112-9255/E-ISSN 2588-2414

Volume 09 Numéro 02 - Juin -2022



# A Tentative Course Design in Medical English: the case of students at Annaba University تصميم منهاج مقترح لتدريس اللغة الانجليزية الطبية عينة طلاب جراحة عامة جامعة عنابة hanane OUIS<sup>1\*</sup>, farouk BOUHADIBA<sup>2</sup>

University of Mohamed Ben Ahmed ,Oran2 Email ouis\_hanane@yahoo.fr University of Mohamed Ben Ahmed ,Oran2 bouhadibafan @gmail.com,

Date of receipt: 2022-02-03 Date of revision: 2022-02-13 Date of acceptation: 2022-03-09

Abstract

ملخص

The need for English as a professional language in medicine nowadays is beyond English for Specific (ESP), has gained ground to become the most prominent branch of EFL teaching in the Algerian universities. ESP courses programmed and offered in most, if not all, scientific departments. However, ESP is still at an experimental level in the medical field. The present paper aims to investigate the important academic components of EMP courses through a student's needs analysis. To achieve the stated objective three questions were raised to carry out the study, and hence a quantitative data were collected by using The questionnaire. informants were postgraduate students in medical studies at Badji Mokhtar University of ANNABA the findings showed that students have a high level of awareness about the significance role of the EMP courses to promote their lacks in and reading scientific writing Furthermore results offered more insights about the students' needs for a variety of tasks and activities related to healthcare in order to improve the four maior skills. Some recommendations were provided demonstrate usefulness procedures: techniques and strategies that would be implemented in teaching medical reading and writing skills.

**Key words:** English for Specific Purposes (ESP), Medical Studies (EMP), Course Design.

أصبحت الحاجة إلى اللغة الإنجليزية كلغة مهنية في الطب في الوقت الحاضر مهمة جدا حيث اكتسبت اللغة الإنجليزية مكانة كبيرة حتى أصبحت من أبرز انشغالات الندوات الاكاديمية و التعليمية بجامعات الجز ائر وفي معظم الأقسام العلمية ، إن لم يكن كلها. غير أن برنامج اللغة الانجليزية لا يز ال في مستوى تجريبي في المجال الطبي و تهدف هذه الورقة البحثية إلى در اسة العناصر الأكاديمية المتعلقة با حتياجات الطالب في اللغة الانجليزية . ولتحقيق الهدف المذكور ، أثيرت ثلاث أسئلة لإجراء الدراسة ، ومن ثم جمعت بيانات كمية باستخدام الاستبيان وكان المخبرون طلبة در اسات عليا تخصص الجر احة العامة الطبية في جامعة باجى مختار أظهرت النتائج أن الطلاب لديهم مستوى عال من الوعى بشأن الدور الهام للغة الانجليزية الخاصة بدر اساتهم لتعزيز مستواهم في كتابة وقراءة المقالات العلمية المتعلقة بآبحاثهم بالغة الانجليزية وعلاوة على ذلك ، قدمت النتائج المزيد من الاستبيانات التي تأكد احتياجات الطلاب إلى مجموعة متنوعة من الأنشطة المتعلقة بالرعابة الصحبة من أحل تحسين المهار ات اللغوية الرئيسية الأربع وقدمت يعض التوصيات لإثبات التقنيات والاستراتيجيات التي ستنفذ في تعليم مهار ات قراءة وكتابة الانجليزية الطبية الكلمات المفتاحية: اللغة الانجليزية لاغراض خاصة ، الدر اسات الطبية ، تصميم المناهج و الدر وس

Correspondant auteur

#### 1.Introduction

In ESP, language is learnt not for its own sake or for the sake of gaining a general education, but to smooth the path to entry or greater linguistic efficiency in academic, professional or workplace environments (Basturkmen, 2006). This statement demonstrates that learning a language can be directed toward other goals than general purposes and focus to develop some needed competencies used typically by adult learners who need to acquire a foreign language in their specific fields or professions. The value of ESP Curriculum design in higher education cannot be overstated. Non-native English students must improve their English proficiency in terms of understanding the language used in different situations, including vocabulary, styles, registers, and structures.

Also, students need to be familiar with the new academic. For these reasons, Algerian universities should place more value on the implementation of ESP courses for different departments which including medicine, computer sciences, business studies..... etc. and give training to ESP lecturers who need to be attentive to developing programs that are learning-centered and integrating with learners needs. In addition, this research work focsous on suggesting an adequate ESP syllabus with teaching programs for the official implementation of ESP courses as part of the curriculum for students in medical studies in Algeria.

# 2. Significance of the Research

The importance of this study is to focus on medical students in Algeria to adapt their needs and preferences, their conditions and situations, and a suitable syllabus and courses for efficient teaching. Moreover, the study will explore the unique English needs and expectations of the students at the faculty of medicine in Annaba. Also, it will dissect their demands for EMP based on multitude of factors that influence the teaching/learning process in the classroom and the productivity on the field of work later on.

# 3. Research questions:

- 1. Can a Medical English course help medical students to overcome their language Lacks and meet the academic needs in their target fields of study?
  - 2. What are the most important skills needed? And how they are needed?
- 3. How to customize the course to fit with postgraduate students curriculum needs at the University of Badji Mokhtar Annaba?

## 4. Hypotheses

- 1. A Medical English course for postgraduate Medicine students at the University of Badji Mokhtar Annaba would be extremely beneficial to their studies and careers.
- 2. Postgraduate medical students can improve their four English skills and will enhance their qualifications and help them stand out in a highly competitive medical sector.
- 3. Reliance on needs analysis as the first stage in developing a course can stimulate course activities through its validity and relevance.

#### 4.Literature Review

#### 4.1. An Overview of ESP

Since 1960's, English for Specific Purpose (ESP) has been progressively growing and has eventually come to play a major part in English Language Teaching (ELT) (Hutchinson and Waters, 1987). ESP can also be regarded as a teaching approach which has widely spread after World War II. At the same time, the English language has globally become the primary means of international communication in Science and Technology, Business and Trading, Education, Computing, to name but a few; and in the Medical field as well (Hutchinson and Waters, 1987). This paper reviews the major relevant literature of ESP and EMP while tracing the origin of the field with special reference to Algeria.

#### 1.1 ESP: definitions and characteristics:

Researchers argue that all language teaching can be described as being for 'Specific Purposes'. This entails that most 'general' language courses are designed to enable students to use the foreign language for a variety of purposes such as taking an exam to satisfy a requirement for entry to higher studies. Nowadays, ESP can be referred to as the teaching of a specific genre of mainly scientific or technical English for students with specific needs, goals, careers or fields of study. ESP meets the needs of mostly adult learners who have to learn a foreign language for use in their specific fields, such as science, technology, medicine, leisure, or academic learning. Clear differences in how people interpret the meaning of ESP can be found in Anthony (1997: 9-10). Robinson(1991: 2) states in this respect:

"Students study English not because they are interested in the English Language or English culture as such but because they need English for study or work purposes".

According to the above definitions, one can say that ESP is goal-directed, it is an approach to language teaching based on learners' goals and reasons for learning a language as summarized in Hutchinson and Waters (1987: 19): "ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning". It is then clearly stated that ESP is a new approach to language teaching based on students' needs. among ESP researchers learners' needs in ESP are paramount and they have represented the driving force in any ESP course design since the emergence of ESP courses in the 1960s. Strevens (1988) illustrated ESP in terms of four absolute and two variable aspects. These absolutes are:

- 1. Intended to meet the learners' specific needs;
- 2.Related in its themes and topics to particular disciplines;
- 3. Centered on appropriate discourse analysis of the discourse; and
- 4. Placed in contrast with 'General English'.

The variable features are:

- 1. ESP may be limited as to the learning skills (e.g., writing) to be learned;
- 2. ESP may not be taught in terms to any predetermined methodology. It means that a specific teaching technique mainly focusing on, for example, communication skills is to be adopted in some teaching and learning contexts but not a general teaching approach. Dudley-Evans and St John (1998), later, offered their own definition of ESP by using the absolute and variable taxonomy, which is similar to Strevens' in terms of the absolutes, but their variables are different. They added more variable characteristics:
- 1. ESP may be related to or designed for specific disciplines;
- 2. ESP may use, in specific teaching situations, a different methodology from that of "General English";
- 3. ESP is likely to be designed for adult learners, either at a tertiary level institution or in professional work situations. It could, however, be used for learners at secondary school level;
- 4. ESP is generally designed for intermediate or advanced students. Most ESP courses assume basic knowledge of the language system. (Dudley-

Evans and St John, 1998, p.4). Nevertheless, ESP can be taught to beginners if careful attention is given to the needs analysis and to an appropriate material design addressing the level of the targeted learners objectives and future use of English in their field of specialty.

## 1.2. ESP vs. General English (GE):

Widdowson (1981, p.89) assumed that the difference between ESP and GE is not related to the fact the "existence" of a need; it is rather the "awareness" of a need. Hutchinson and Waters (1992) argued that if teachers and learners are aware of the reason why learners need English, this will have an impact on what will be accepted as an efficient content in the language course and what would be achieved.

The main difference between ESP and GE can be summarized in five points:

- 1. The purpose for learning: Harding (2007, p.6) declared that "the sense of purpose gives the language work immediately and a relevance which is perhaps not always found in other sectors of ELT, particularly of the 'General English' variety."
- 2. The type of ESP learners: ESP learners are not generally motivated by courses of general English because they consider that language-based work would not fulfil their practical needs and expectations (Harding 2007, pp.8-9)
- 3. The age of the learners and the mastery of language: Learners in ESP are generally adults who have often reached a reasonable competence in all areas of the language.
- 4. The factor of time in ESP: It is is introduced by Robinson (1980,p.9) in:

  The very concept of 'special purposes' implies that foreign
  language study in subsidiary contribution to another main interest,
  and there will normally be pressure to achieve the required level
  of linguistic competence in the minimum time. (Robinson, 1980, p.9)
  So, it is well understood that there is a distinction between long-term
  ongoing process of learning English and short-time periods in ESP.
- 5. Narrowing the language content: it means that the selection of skills is restricted in ESP course. Instructors should choose only the needed topics, themes and

discourse.

## 1.3. Needs Analysis in ESP

Needs Analysis is defined differently by researchers, but many of them agree that NA reflects necessities, wants and needs of learners in their subject area. Dudley-Evans and St John (1998, p.125) define NA as: "professional information about the learners: The tasks and activities, learners are/will be using English for target situation analysis and objective Needs". They also, regarded NA as the process of deciding the learners' English language skill; finding information related to linguistic, genre, discourse; determining what is expected out of the course; and finally establishing how the course will be administered.

## 1.4. English for Medical Purposes

English has gradually become the lingua franca of medical publications and conferences across the world with scholars from 'smaller' languages opting for English because of the greater scientific impact and prestige associated with a wide international audience. The use of the English language in the scientific world is steadily increasing, and most specialized medical literature is published in English (Piquet et al, 1997). Consequently, medical students are required to obtain ideas and information about medicine by listening to talks and lectures, viewing multimedia resources, and reading a variety of science and technology materials.

# 1.5.ESP Curriculum Development

Curriculum development is basically the process of planning and implementing a given syllabus in the same way a language curriculum is regarded as the various tasks and materials combined in one design.

As mentioned above, ESP instruction needs be learner-centered. This inevitably makes curriculum development goal-oriented and tailored to the specific needs of the learners. It should also be socio-culturally sensitive (Hutchson and Water, 1978), which indicates that developing a course for a groups of Arab students might differ from developing an ESP course for Spanish ones as the Spanish class can be more familiar with Latin scripts and terminology. For that reason, more focus on Latin and Greek medical terms is needed when developing and teaching ESP to Arab students. Authenticity should be a central factor in designing ESP teaching materials (Robinson, 1988). In fact, finding authentic materials is a hard task and

some ESP teachers, hence, prefer to adapt commercial ESP published textbooks. Again, due to the wide range of publications on the market that typically meet more general than the specific needs of the learners, it is difficult for ESP teachers to select appropriate published materials that are close to authenticity while also being specifically tailored to the learners' specific needs. It is almost fantastic for readymade published course books to be fully practical due the existence of a wide range of ESP sub-branches, courses (Dudley-Evans and St John, 1998).

We believe that an alternative is to produce in-house textbooks to meet the identified learners' needs within a specific content area by developing tailored-made ESP materials that meet the specific course objectives. These materials can enhance the learners' major programmer in that the in-house or 'home-made' materials can manage to introduce authentic tasks and activities that meet the learners' specific needs. Moreover, to ensure an effective ESP course delivery, cooperation with content subject teachers can supplement any missing content feature in the course.

## 2. Methodology:

## 2.1. The ESP and EMP Teaching Situation in Algeria:

The need to learn English is also associated with the need to prepare teachers for the profession who will be able to teach English either for General Purposes or for Specific Purposes. In Algeria and at university level which represents the case under investigation, we notice a rapid growth and expansion taking place in the past ten years. In the Faculty of Medecine, French language is used as the main language of research and training while English it is taught as a support course. Teachers of the faculty declared that the Medical English course for the postgraduate students would be essential because those students should be able to write their final Doctorate article in English, but there are no specialized ESP course designers who can provide an implemented course content and methodology. English tought by part-time EFL teachers, who are neither syllabus designers nor materials developers, they are teaching general English lectures they believe would be beneficial to their students.

# 2.2 Participants:

The participants were 1<sup>st</sup> year students in general surgery in the medical department at Badji Mokhtar University (ANNABA) for the reason that

they have sufficient experience; they have practically finished their academic curriculum, have enough knowledge about medicine, and they are practitioners under supervision. The sample consisted of (60)students at the door of the second cycle of medical studies (residency). Only forty (40) students took part in this investigation. They are both enrolled in the same educational program for the 2017/2018 academic year, during which the demand for English as an international tool and weapon grows dramatically in the face of globalization and advancing technology and sciences.

#### 2.3. Research Instruments:

The students' questionnaire and classroom observation were utilized to collect data in this experiment.

-The students 'questionnaire: it was divided into three parts; The first one is composed of eleven questions that gather important information, including personal data, their goals, and their personal opinion concerning the relationship between their studies and eventually their future practice, and the language, especially the English language.

The second part focuses on general topics of teaching/learning the English language, and the questions were oriented toward which of these topics students find more relevant, more difficult, and more suitable for emphasis. Four classifying questions that would instigate students and help them comprehend different components of the medical field, help them as future practitioners grasp the essence of their domain, and, of course, guide the stream of EMP courses by sorting out subjects/topics, diverse materials, and various functions and tasks

The final eight questions focused on the foundation of any language skill. Perfect knowledge of listening, reading, speaking, and writing is considered the most important factor needed to master the language.

**-Classroom observation:** The purpose of applying this instrument was to provide perspective on course activity and content, teacher-student connections, and students' motivations.

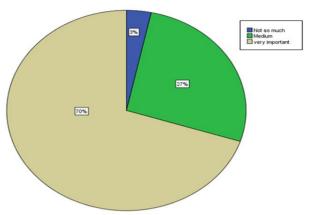
# 3. Findings and Discussion:

The discussion of needs analysis in this investigation based on two key study tools: the students' questionnaire and classroom observation.

The questionnaire provided a plethora of data on students' backgrounds, covering aptitudes, motivation, needs and wants. So, The following

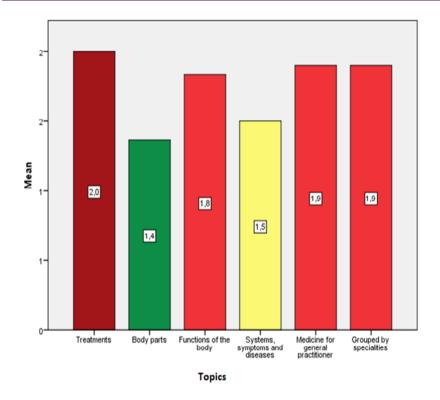
information was obtained primarily by the use of research instruments:

Fig.1.The importance of English language according to medical students



The results revealed that it is important to be aware if students are motivated to learn something especially a language. According to the answers provided by students,( 70% )consider that English language is important in both everyday life and in medical practice. According to general information most of the students have a very insignificant connection with English language for their whole academic route, despite their awareness of the importance of English for career or other aspects.

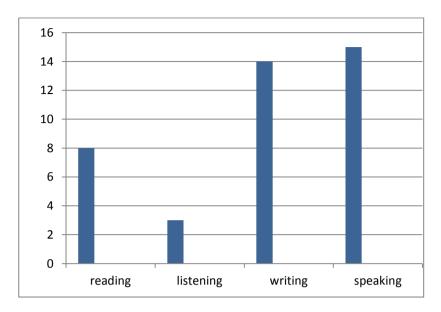
Fig.2.Chosen topics for EMP courses



According to results submitted by students, their interest in different topics is almost at the same level; the EMP courses should focus on subjects about general medicine as well as medicine for specialists, functions of the body and treatments due to its importance as the practical side of medicine. The figure shows a less interest learning body parts, systems and symptoms/diseases which they consider it as theoretical side that can be consulted easily on a dictionary or the internet. The academic part contributes a lot of medical practicing, constantly update knowledge, searching for the information and presenting it to the scientific community are vital points for the progress of medicine.

An interest in participating in the meeting was taking the lead among other choices due to its role in communicating, finding and results, notably that the English language is clearly the dominant language of publication (literature). Afterwards, learning how to study articles occupies the second row followed by preparing presentations and medical investigations.

Fig.3. The Order of the Importance of Major Language Skills



According to 1st year students answers they were equally divided about the importance of writing and speaking, followed by writing is then listening. The four skills are crucial for the development of the English level, but in general English education, all four language skills are taught equally: listening, reading, speaking, and writing. However, in ESP courses needs analysis assesses which language skills are most necessary for the learners, and the curriculum is developed effectively.

In conclusion, the demands and views of medical students were a very invaluable pillar for designing an efficient ESP course that increases students' learning skills and language level.

**2/ Classroom observation** was another useful Istreament for obtaining and collecting accurate data. Three concepts will be used to discuss the information gathered:

#### 3.1. Didactics of Course content:

The steps to be undertaken in designing an ESP course and developing materials for this paper are based on the notions put forward by Hutchinson and Waters (1987) in that it seeks to adopt a learner-centred approach

focusing more on enhancing students' communicative skills along with other linguistic abilities. The first stage consists of an investigation at Annaba University which is based on actual classroom observation and note-taking. Similarly, we concentrate for our data collection on the course which lasts about three months. We are planning to visit the EMP class evaluate the English language skills being taught and to find out the linguistic prerequisites which are needed by the actual learners in order to be able to deal with the content and language that such an EMP course requires for better

teaching/learning purposes. The second step is based on conducting an informal interview with the teachers to discuss the students' strengths and weaknesses in grammar, vocabulary, written expression and reading comprehension and production in EMP together with the materials being used, and the assessment procedures. During the six observation sessions, it was clear that the course topic was not delivered in units, the course focused on grammar-based and general English contents related to general vocabulary although their courses lead to specific medical ones. Teachers don't but into consideration students' needs and wants in their English courses the approach appeared teacher centered .

A course that is dense with grammatical rules cannot be effective or efficient for ESP students. As a result Students would be demotivated. Students were motivated to attend the lectures at the start of the course, therefore they were active participants. However, at the last sessions of the observation, their number decreased; due to the time allotted at the end of the day or because the course content was purely grammatical rules and structures, and they were bored.

During the observation process it was noticed that there was minimal contact between teachers and their students, while dealing with classroom assignments, which were all grammar-based, students did not work in pairs or groups; instead, they answered the tasks through the posed questions. The right answers were then written on the board by the teachers. As a result, it was very evident that the lecturers' understanding of language teaching is that grammatical rules are the bedrock of any language course. The data obtained will be analysed and employed to write the course objectives and

to suggest a syllabus. The information gathered helps us to choose appropriate teaching methods, materials and assessment types. There are also other factors included in this process, including administrative technicalities of the course. We shall teach the course at the University in order, check for ourselves the relevance of the suggested syllabus for EMP at Annaba University.

## **3.2.**Course Description:

The English for Medical purposes (EMP) course aims primarily at equipping students with the necessary language skills they need to cope with the linguistic requirements of their specialisation and to use English properly and fluently in the professional environment they are expected to join. As it draws on a wide range of topics and applications that relate to medical topics, this course seeks to develop all four skills with special emphasis on lexical and terminological acquisition and grammatical accuracy. Since the course is oriented towards communication rather than knowledge acquired in the field of specialization, it gradually trains students to interpret and use words appropriately and to formulate grammatically correct statements while talking and writing on issues such as drug administration, laboratory reports and hospital procedures. This course will also familiarize the students with basic medical terminology.

## 3.4. The Course Objectives:

The main goal of the EMP specific curriculum is to prepare students to be able to recognise and produce spoken and written language in order to effectively understand their research papers and new scientific works in their domain . The specific, detailed aims are to.

- 1. Improve students' ability to create written and oral EMP English;
- 2. Prepare students to master the hospital culture concepts and communications.

There is also a cognitive output, comprehension, thinking application and behavioral skills students are expected to acquire by the end of this course.

### 3.5.EMP Course organization

The course will take place over one academic year during eight (08) months . Regarding lectures, they should be two (02) sessions per week The target population postgraduate 1<sup>st</sup> years students of general surgery in medicine . Students were divided into groups of thirty (30), rather than being crowded into a single Amphitheatre like it was the case with the faculty.

## 3.6. Teaching Materials and activities used in the course:

We mention below some of the features of the intended EMP course for Annaba University. This may be extended and enriched / improved for other EMP courses across the country. We therefore suggest the following:

- Including tasks in the student's textbook and worksheets that will be designed.
- Individual, pair and group learning and teaching tasks.
- Motivating and encouraging students to be creative and self-reliant in presenting original materials by arranging field visits to local clinics and hospitals.
- The student's workbook and textbook (to be designed) will first be used on an experimental basis in order to see it use by the teachers and the learners.
- Including supplementary materials such as handouts, leaflets, etc., which can be provided by the teacher.
- Including EMP Glossaries, dictionaries, and the most frequently used expression in this domain.
- Including other EMP references.

# 3.7.EMP Course Testing and Assessment

- Formative assignments and Quizzes.
- -A written test at the end of each unit.

- -Oralprojects presentations
- -Final semester exam (S1+S2).

#### **4.**The Course Contents

The proposed course will include a detailed and illustrated content unit with many relevant and specific topics which can help the students to be acquainted with producing EMP writings and reports. The following units represent prototype lesson sequencing:

Units and Topics	Vocabulary and Terms	Grammar focus and Tasks	Language Skills to be developed and improved
Unit one: parts of the body	Medication and Treatments terminology Culture: Types of medication / alternative treatment	Present simple tense :short questions Passive and active voice examples final -S and- Ed endings Reported speech	Listening focus Speaking focus
Unit two: Body system	The five senses and body functions	Countable uncountable nouns Past tense adjectives and adverbs	Reading focus Writing focus
Unit three: medical personal and places	Medical practitioners Hospital staff and services	Past continuous present perfect	Writing Speaking focus
Unit four: Diseases and symptoms Unit five:	Describing problem Talking about the problem Medical	Present perfect Imperative question words	Listening Speaking focus Reading

prevention and treatment	surgical treatment vocabulary	Present and past modals Comparison conditionals	Listening focus
Unit six: explanation and research presentation	Physical and mental examination of patients Case control studies Cohort studies Trials	Sentences connection future tense causative infinitive ND ground	Writing, speaking reading focus

#### 5. Homework and Tasks recommandactions:

- Student should do the homework, tasks and assignments regularly.
- Students prepare certain topics and give presentations related to the professional environment.
- Students keep all these in a course file and present this selection at the end of the course to be assessed.

#### 6.Conclusion:

This paper explores the perceptions of postgraduate medical students Badji Mokhtar ANNABAUniversity (Algeria) about how frequently they use different English Language skills and how important they think these skills are for their vocational needs. A conducted questionnaire shows that English is necessary for the students to fulfill their duties successfully. This study also aims at identifying the particular academic and communicative needs of the targeted group of learners. This work objectives at proposing a design for an ESP course for medical students after conducting a Needs Analysis based on previous results and models (Richards et al 1985, Hutchinson and Waters, 1987). The NA would ultimately help to:

"identify general to specific language needs, which can be addressed in developing goals, objectives and content for a language programme and provide data which can serve as the basis for reviewing and evaluating an existing programme".

Accordingly, after analysing the learners' needs, we hope the course design will be appropriate to the target EMP students at Annaba University.

#### **References:**

Anthony, L. (1997) "English for Specific Purposes: What does it mean? Why is it different?" In CUE. Vol.5, N° 3, pp 1-2.

BASTURKMEN, H. (2006). Ideas and Options in English for Specific Purposes. Mahwah, New Jersey: Lawrence Erlbaum Associates.

BELCHER, D. (2006). English for Specific Purposes: teaching to perceived needs and imagined futures in worlds of work, study, and everyday life. TESOL Quarterly. 40(1) pp. 133-156.

BRINDLEY, G. (1989). The role of needs analysis in adult ESL program design. In: Johnson, R. K. (Ed). The second language curriculum. (pp. 63-78). Cambridge: Cambridge University Press.

CHAMBERS, F. (1980). A Re-evaluation of Needs Analysis. ESP Journal, 1(1) pp. 25-33.

CELCE-MURCIA, M. (2001). Teaching English as a Second or Foreign Language. Thomson Learning Inc.

CRYSTAL, D. (1995). The Cambridge Encyclopedia of the English Language. Cambridge: University Press, Cambridge.

DOUGLAS, D. (2000). Assessing Languages for Specific Purposes. Cambridge: CUPress.

DUDLEY-EVANS, T. & STJOHN, M.J.(1998) Developments in English for Specific Purposes.CUPress.

FLOWERDEW, J., & PEACOCK, M. (2001). The EAP Curriculum: Issues, methods, and challenges. In J. Flowerdew, & M. Peacock (Ed.), Research

perspectives on English for Academic Purposes. (pp. 177-194). Cambridge: Cambridge University Press.

GRADDOL, D., 1997. The Future of English? London: The British Council.

GYLYS, B. A., & WEDDING, M. E. (1983). Medical Terminology. New York: F.A. Davis Co.

Hutchinson, T. & Waters, A. (1987) English for Specific Purposes: A learning-- centered Approach. (p.6). Cambridge: Cambridge University Press.

Mackey, R. and Mountford, A.J. (1978). English for Specific Purposes; Longman, London.

Piquet et al. (1997) Applied Languages: Theory and Practice in ESP, pp. 37-44. Valencia; University of Valencia.

Robinson, P. (1988). ESP Today: A Practitioner's Guide; Prentice Hall International Ltd.

Widdowson, H. G.(1981). English for Specific Purposes. In L. Selinker, E Tarone and V.