MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH



Faculty of Foreign Languages Department of English University Of Mohamed Ben Ahmed; Oran 2



Suggesting Teaching Strategies in the ESP module: The Case of Mechanical Engineering Students at Djillali Liabès University, Sidi Bel Abbès.

Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of "Magister" in Language of Special Field.

Presented by: Mr. Djamel NOUALI

Supervised by: **Dr. MohamedYamin BOULENOUAR**

Board of Examiners

Prof. Belkacem BELMEKKI Professor Chair: Supervisor: Dr. M.Y. BOULENOUAR **Examiner: Prof. Abbes BAHOUS**

MC-A Professor **University of Oran, Oran 2** University of Sidi-Bel-Abbès **University of Mostaganem**

Academic Year: 2015/2016

Table of Contents

Dedication	
Acknowledgements	
Key to Abbreviations	
List of tables	
List of figures	
General introduction	14
English for Specific Purposes (ESP)	15
Statement of the problem	16
Purpose of the study	17
Chapter One: Theorical Aspects	20
Introduction	22
1. English for Science and Technology	23
1.1. Teaching English for Science and Technology	23
1.2. English for Specific Purposes	24
1.3. Definition of ESP	25
1.4. The types of ESP	27
1.5. Reasons for the emergence of ESP	28
1.5.1. The demand of a Brave New World	29
1.5.2. Revolution in linguistics	29

1.5.3 Focus on the learner	30
1.6. ESP course design	31
1.6.1. Course design	31
1.6.2. Self-direction	33
1.7. Stages in the development of ESP	34
1.7.1. Register analysis: the concept of special language	35
1.7.2. Rhetorical or discourse analysis	37
1.7.3 Target Situation Analysis (TSA)	38
1.7.4 Analysis of study skills and strategies	39
1.8. The Basic Conceptions/ Principles of ESP	40
1.8.1 Authenticity	40
1.8.2 Research base	41
1.8.3 Language/ Text	42
1.8.4. Learning Needs	42
1.8.4.1. Analysis of Learning Needs	44
1.8.5. Learning/Methodology	46
1.9. The difference between ESP and EGP	49
1.10. Different types of ESP	50
1.10.1. English as a restricted language	50
1.10.2. English for Academic and Occupational Purposes	51
1.11. Needs Analysis	51

1.11.1. Target and Learning needs	52
1.11.2. Situational and communicative needs	52
1.11.3. ESP Materials	53
Conclusion of the chapter	55
Chapter Two: Methodology	56
Introduction	58
2.1. The Faculty of Engineering at Djillali Liabès University	59
2.2. The administration	59
2.2.1. The samples	60
2.2.1.1. The students Profile	60
2.2.1.2. The Teachers Profile	60
2.3. Description of the Students' Questionnaire	61
2.3.1. Analysis of the students' questionnaire	62
Question1	62
Question 2	62
Question 3	63
Question 4	63
Question 5	64
Question 6	64
Question 7	65
Question 8	65

Question 9	65
Question10	66
Question 11	66
Question 12	66
Question 13	67
Question 14	67
Question 15	68
2.4. Description of the teachers' questionnaire	68
2.4.1. Analysis of the teachers' questionnaire	69
Question 1	69
Question 2	69
Question 3	70
Question 4	70
Question 5	71
Question 6	71
Question 7	72
Question 8	72
Question 9	72
Conclusion of the chapter	73
Chapter three: Pedagogical Implications	75
Introduction	77

3. Problems and challenges of ESP	78
3.1. Students' competence and difficulties toward ESP	78
3.2. The role of the ESP teacher	79
3.3. Other factors affect the effectiveness toward ESP	79
3.4. Perception and expectations toward ESP	80
3.5. The ESP Practitioner as Teacher	81
3.6. The ESP Practitioner as Course Designer and Material Provider	81
3.6.1. The ESP practitioner as Researcher	81
3.6.2. The ESP practitioner as a collaborator	82
3.6.3. The ESP practitioner an Evaluator	82
3.7. Stressing the course content	83
3.7.1. Developing the teaching Principles and Methodology	83
3.7.2. Increasing Engineering Students' Motivation	84
3.7.3. Teaching Creativity in Engineering	84
3.8. Designing Challenging Tasks	84
3.8.1. Vocabulary Teaching	87
3.8.2. The Presentation Techniques	87
3.8.3. The Practice Techniques	88
3.9. Methods and activities of teaching the four skills in ESP	88
3.9.1. Writing	89
3.9.2. Reading	90

3.10. Training EFL teachers for ESP teaching	91
3.10.1. Pre-service teacher training	91
3.10.2. In-service teacher training	92
3.11. Pedagogical implications	92
3.12. Limitations of the study and suggestions for further study	93
3.13. The Suggested Syllabus for third year of Mechanical engineering	94
Conclusion of the chapter	95
General conclusion	97
Bibliography	100
Annex One	102
Annex Two	105

Dedication

To the remembrance of my departed mother; affection and consideration.

Acknowledgement

No work is done alone. Sometimes we seem so lucky or maybe we are just blessed, when there seems to be much to do, along come friends and my brother like the ones to whom I say thanks.

I wish to acknowledge the importance of the various contributions that the following people have made in the creation of this thesis. The completion of this thesis would not have been possible without them. Their efforts, friendship and encouragement make a great amount of things possible in my life.

I thank my supervisor, Dr. BOULENOUR Mohamed Yamin, University of Djillali Liabès, Sidi Bel Abbes who kindly agreed to guide me through this thesis. I also would like to express my gratitude and indebtedness to him, who has been liberal in supporting me and providing essential academic guidance and assistance all throughout the whole project for graciously reading several drafts and to complete this study in time. He has been a perfect motivator, very cooperative and an inspiring guide to me to fulfil this academic pursuit.

I also thank the very honorable jury members especially Professor Abbes BAHOUS and Belkacem BELMEKKI who have devoted their time and efforts to evaluate this research work. My gratitude brands must be fully extended to both.

I extend my deep gratitude to Dr. MISSOURI Belabbas for his support and guidance given at various stages of this thesis. He has been of immense help in analysing data of this thesis. I am extremely thankful to him for his cooperation in my difficult times.

My special thanks are due to my brother, Dr. NOUALI Ghaouti for his sustained encouragement, valuable suggestions, timely assistance and all the sacrifice he made during the preparation of the thesis.

I acknowledge with gratitude, Dr. Aziz OULHACI for his support, encouragement and willingness to help me at any time. I owe much to a number of teachers and students at the department of Mechanical Engineering, Djillali Liabès University in Sidi Bel Abbes who readily accepted to spend a bit of time with me to answer my questions and also complete the questionnaires distributed to them.

I also thank all my friends but especially Mr. Sidi Mohamed AMMARI for their cooperation and support in my difficult times.

Last but not least, I would like to express my sincere gratitude and appreciation to Dr. MOULFI Leila for her valuable guidance and help. Without a doubt, this thesis would not be possible without you. Your inspiring support and encouragement was invaluable and will always be remembered. Thanks a lot.

List of Abbreviations

- EAP: English for Academic Purposes
- EAP: English Educational Purposes
- EBE: English for Business and Economics Purposes
- EGP: English for General Purposes
- EGAP: English for General Academic Purposes
- EGBP: English for General Business Purposes
- EFL: English as Foreign Language
- ELT: English Language Teaching
- EOP: English for Occupational Purposes
- ESL: English as a Second Language
- ESP: English for Specific Purposes
- ESS: English for Social Sciences
- EST: English for Science and Technology
- EVP: English for Vocational Purposes
- FL: Foreign Language
- GE: General English

L1: First Language

L2: Second Language

LSA: Learning Situation Analysis

LSP: Language for Specific Purpose

NA: Needs Analysis

NNS: Non Native Speaker

NS: Native Speaker

PSA: Present Situation Analysis

PST: Present Situation Target

SE: Specific English

TEFL: Teaching as a Foreign Language

TOFL: Tests of English as a Foreign Language

TL: Target Language

TSA: Target Situation Analysis

List of figures

Figure 1.1: The subcategories of EST (Swales, 1998	.page 23
Figure 1.2: Factors affecting ESP course design	.page 32
Figure 1.3: Diagram of ESP (Adapted from Hutchinson and Waters, 1987, p.17)	.page 35
Figure 1.4: Outline of 'A learning-centered Approach to ESP'	page 48

List of tables

<i><u>Table</u></i> : The Suggested English Syllabus for Third Year Students of Mechanical
Engineeringpage 94

GENERAL

INTRODUCTION

General Introduction

English language teaching has been widely affected by the technological and social changes of the twenty first century, such as developments in technology; commerce, science, and business have created a new generation of students who need English for specific purposes. Our present investigation is to be shaped on three main chapters.

The first chapter is based on theory and a number of other researches realized within the domain of ESP. English is nowadays so important because of its international character and because of its widespread use as a means of communication and as a vehicle which facilitates further progress in other subjects. English is also used as a medium of instructions in some schools and faculties such as those of Science, Engineering, Agriculture, Medicine and Social Sciences. That's why our readings were intensified in order to verify how ESP is perceived and used. And also because English is important, it is taught in schools, institutes, colleges and universities as a compulsory course.

EST emphasizes purposeful and utilitarian learning English. The communicative needs of the students concerned with both the oral and written discourse of English for Academic and Professional purposes are important consideration of course design.

In the second chapter, using our modest experience as a teacher of English, we will observe the comportment of students in order to verify the interactions, and to check how the lessons are conveyed and whether the contents are correctly transmitted. The rentability among an autonomous situation will also be a matter of concern in this part of the research.

Still in chapter two, the study sheds light on the relevant observations realized during various ESP lessons, carried out with three different populations that are chosen as samples. Accordingly, such a process will pave the way to have a large set of information, through observing students' behaviours, verifying the classroom reality and its link with our problematic and all that documentation checked. Therefore, in the same chapter, we decided to introduce the questionnaire for both students and teachers involved in the present study: the main method for gathering the necessary information, which is probably one of the most popular devices for needs analysis. Questionnaires are thought to be the least-time consuming ways of collecting information and data may be easily analyzed.

At first view, teaching ESP seems complex and difficult to realize as students arrive with a poor background, ignoring all of what will be used and done in an English lessons. The reason is that they focus their attention on technical modules and other laboratory experiences. Thus, they discover this reality based on learning English (specific one for instance) in order to pursue their studies. We introduce a detail, most of the terms and other locutions within their modules of specialization are in English.

Seemingly, teaching ESP for non-natives is really complex for students at engineering faculty. That is the first opinion we introduce. As the research work suggests some guiding principles for ESP course design, there should be a focus of observation on the manners of reception, understanding and rewriting. Then, some techniques of teaching vocabulary and language skills are suggested.

The third chapter will be a large overview and analysis of the classroom experience and observation, also a detailed analysis of the students and teachers' responses to the submitted questionnaires. We will also check whether the students and teachers' perceptions of ESP seem particular and close to the primary hypothesis. Through the same chapter, we will verify these hypotheses and the proposed suggestion of some guidelines based on how to teach ESP for a specific group of students. In order to fulfil this objective, it is worth going through the following.

English for Specific Purposes (ESP)

English has gradually achieved its significant identity as the world language during the globalization process. It is the only or the one of the official languages of many important international organizations, such as the United Nations, the Organization of Petroleum Exporting Countries and the European Free Trade Association. In fact, English language is taught either as a foreign or second language in over 100 countries. In addition, a quarter of world's periodicals and most academic journals with an international readership are published in English, and more than 90 percent of international organizations carry on their proceedings entirely in English. Moreover, when English took the role of the most significant world language, it became the key to the international currencies, society, policy and commerce.

The rapid growth of technology, engineering and economy of Algeria have created a strong need for people who want to fulfil studies, realize partnership or communicate in English. The pressing need of English competence also leads to changes in the country's higher educational environment.

Statement of the Problem

Nowadays, teaching English is spread in almost all those domains where its necessity for all professions is felt. Consequently, more and more university students choosing to take law, economy, engineering, architecture, medicine and the like, are very much aware of the importance of English and its contribution to help them accomplish a great variety of jobs without difficulties. Additionally, they also know that learning general English is not enough to succeed in studies where the need of mastering specific English is demanded. Therefore, engineers studying in the Faculty of Engineering for instance, are more than convinced that these studies will allow them to have an easy access to technical terms if they focus more on English for a Specific Purpose (ESP) rather than on General English (GE).

ESP language is then taught within the engineering faculty as students must know what is necessary to use in terms of research and other readings related to their domain. It is also commonly known that the students cannot find the needed elements within general English, that's why we noticed the presence of new terms, neologism and other personal abbreviations.

Due to the rapid Technological development, the emergence of new working tools and processes mainly computing, shaping, calculating and designing are widely spread among graduation and post-graduation skills. As a corollary, it is quite noticeable that a large number of students taking ESP fail in understanding most of the courses, because of their poor background knowledge, both in General and specific English and subsequently their incapacity to master the form and the content of the two.

As English is used within almost all the research fields, actors of new techniques development and teachers of ESP mainly are concerned about methods and techniques to use, about how to adjust specific background towards learners needs. These latter are daily present among such a world where the use of English becomes necessary.

Needs analysis is a complex process which is usually followed by syllabus design, selection of course materials, and evaluation. Students often find it difficult to define what language needs they have and cannot distinguish between needs, wants and lacks. Although these three concepts are unrelated, it is important for the teachers to be aware of their impetus on successful learning. The conceptions of "target needs" and "learning needs" are two important types of needs. Target needs are what the student needs in order to function successfully in the target situation, whereas learning needs are what the student needs to learn to meet the target situation.

Purpose of the Study

To tackle the former problematic, an explanatory study and observation are undertaken with the third-year Students of Mechanical Engineering at Djillali Liabès University in which students' learning needs are investigated. According to the nature of such a population, we think it is necessary to install competences, adapt techniques and bring newness in term of ESP.

The main purposes of this investigation are to enhance the students' awareness of their target needs, then to create an effective and fruitful interaction between the teacher and the students in the learning context. And to provide guiding principles for designing suitable ESP courses based on the research findings.

Four research questions are involved in this study:

1. What are the reasons behind ESP students' low motivation during English courses?

2. What kind of preparation, intervention, and assessment are most effective to meet ESP students' learning needs to reach the required degree of competence in the target situation?

3. What are student perceptions of ESP learning?

4. What are teacher perceptions of ESP teaching?

Course Aims

English for Specific Purposes (ESP) is designed to introduce them to a learning centered approach to ESP, and the development of a programme of instruction for ESP.

Course Objectives

It is hoped that by the time we complete the course using this guidelines, we will be able to:

- 1. define ESP
- 2. discuss the origin of ESP and its development
- 3. state the special characteristics of ESP programme and teaching materials
- 4. be equipped with theories and application examples
- 5. conduct analysis of the communicative and linguistic needs
- 6. critically evaluate and select ESP teaching materials and methods and be able to
- 7. conduct ESP course evaluation
- 8. create original ESP teaching materials
- 9. recommend methods of assessment and testing appropriate for specific ESP contexts and make connections between the relevant findings from discourse analysis, in particular

How ESP is taught in the faculty of Engineering?

In fact, teachers are given the big lines on what the programme will be built. It is for teachers to set a suitable syllabus according to students' level.

CHAPTER ONE

THEORICAL ASPECTS

Chapter One

Theoretical Aspects

Introduction

- 1. English for Science and technology
- 1.1. Teaching English for Science and Technology
- 1.2. English for Specific Purposes
- 1.3. Definition of ESP
- 1.4. The Types of ESP
- 1.5. Reasons for the Emergence of ESP
- 1.5.1. The demand of a Brave New World
- 1.5.2. Revolution in Linguistics
- 1.5.3. Focus on the Learner
- 1.6. ESP course design
- 1.6.1. Course Design
- 1.6.2. Self direction
- 1.7. Stages in the development of ESP
- 1.7.1. Register Analysis: The Concept of Special Language
- 1.7.2. Rhetorical or Discourse Analysis
- 1.7.3. Target Situation Analysis
- 1.7.4. Analysis of Study Skills and Strategies
- 1.8. The Basic Conceptions Principles of ESP
- 1.8.1. Authenticity
- 1.8.2. Research Base
- 1.8.3. Language Text
- 1.8.4. Learning Needs
- 1.8.4.1. Analysis of Learning Needs
- 1.8.5. Learning Methodology
- 1.9. The Difference between ESP and EGP
- 1.10. Different Types of ESP
- 1.10.1. English as a restricted language
- 1.10.2. English for Academic and Occupational Purposes
- 1.11. Needs Analysis
- 1.11.1. Target and Learning Needs
- 1.11.2. Situational and Communicative Needs
- 1.11.3. ESP Materials

Conclusion of the chapter

Introduction

English for Specific Purposes, for instance, has become one of the most popularly topics over the last decade, but has so far received less attention from researchers than it deserves. This may due to the fact that the ESP courses are more complex and potentially problematic than most English language teachers perceive at the beginning of their English for Academic Purposes. Another possible reason is that students are not aware of the importance ESP courses.

The finding of the study may provide ESP practioner's and institutional authorities with a clear view of existing ESP courses, enabling them to rethink the objectives of current ESP curricula. Similarly, it may also help students building up their awareness of goals, needs, and responsibilities through ESP learning. Suggestions for a prospective ESP teaching and curriculum for the students of specific contexts are provided based on the results of the study.

ESP is a broad diverse field of English language teaching; it is an approach that uses needs assessment as the foundation for curriculum development and their needs, the objectives of the course, and the language syllabus. An overview is then given about the origins of the ESP approach as a result of the growing global phenomenon of English in scientific and technical communication, and illustrates its types, models, and its importance and uses. Then, the ESP course design is described according to its criteria, development and approaches.

1. English for Science and Technology

EST is the area of study of English for Science and Technology belongs to the ESP approach. It started to breathe life after the Second World War when a large expansion in scientific, technical, and economic activity began. According to Swales: "It is known to have been developed especially rapidly, English for Science and Technology has always set and continues to set the trend in theoretical discussion, in ways analyzing language and the variety of actual teaching materials."¹

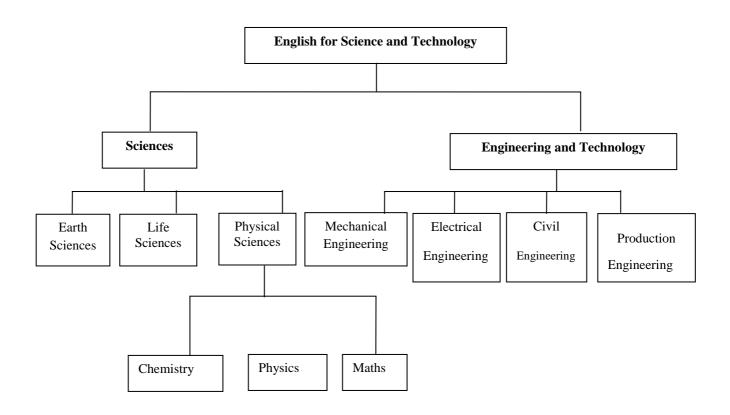


Figure 1.1: The subcategories of EST (Swales, 1998).

1.1. Teaching English for Science and Technology

EST is concerned with both the oral and written discourse of English for Academic, and Professional, Occupational or Vocational purposes. It mainly deals with students at the tertiary level for whom the learning of English takes on a service role for their specific needs in study, work, or research because of the

¹ Swales, J., (1985): Episode in ESP. New York Prentice Hall edition, p. 16

outcome of technological domination of the world. States and educational institutions aims at developing people who wanted to learn English. They knew that they would use the knowledge of special English for. Hutchinson and Waters state that: "Learners were seen to have difficult needs and interests, which would have important influence on their motivation to learn and therefore on the effectiveness of their learning".²

Thus English for engineering purposes is a course design for potential engineers who would need to use the language to communicate with colleagues and customers. It aims at developing students' communication skills in English to contribute in meetings, discuss technical drawings, and prepare presentations in English.

1.2. English for Specific Purposes

ESP is an approach which uses assessment as the basis for curriculum development. Hutchinson and Waters define ESP as: "An approach to language teaching, course design and materials development in which all decisions as to context and methods are based on the learners' reasons for learning."³

Streven's definition (1980:01) of ESP makes a distinction between absolute characteristics and two variable characteristics. The absolute characteristics are those characteristics which distinguish ESP from ELT and are as follow:

- Designed to meet specific needs of the learner.
- Related in content to particular disciplines, occupations, and activities.
- Centred on language appropriate to those activities on syntax, lexis, discourse, semantics, and analysis of discourse.
- In contrast with "general English".

² Hutchinson and Waters, A. (1982) *English for Specific Purposes. A Learning-Centred Approach*. Cambridge. Cambridge University Press. p. 84

³ Hutchinson, T. and Waters, A. (1987): op. cit. p. 19

The variable characteristics, which depend on the conditions of the learning setting, are that ESP:

- May be restricted as to the learning skills to be learned.
- May not be taught according to any pre-ordained methodology.
 On the other hand, Dudley-Evans and St. John (1980:05) state that ESP is concerned with the language (grammar, lexis, and register), skills, and discourse.

According to them ESP:

- May use, in specific, teaching situations, a different methodology from that of general English.
- Is likely to be designed for adult learners.
- Is generally for intermediate or advanced students but it can used for beginners.

1.3. Definition of ESP

The term ESP (cited in Tuncay, 2003:79) refers to English-teaching situations in which the range of language which is taught is restricted or specialized in various ways. For example, engineering students in university courses may need English only for reading their textbooks. In the 1900's ESP has emerged into ELT curriculum. Since then, it has been dealt with the greatest care by the ELT experts in order to meet the professional needs emerged in the development of business world and international relations. At the very beginning, Johns appoints:

"ESP researchers and teachers concentrated on the sentence-level characteristics of the types of English identified as useful to their students. Researchers completed extensive analyses of the lexical and grammatical features of academic and professional registers such as the language of electrical engineering and the language of law."⁴

⁴ Johns, A. M. (1991): *English for Specific Purposes (ESP). Its history and contribution.* Mariane Celce-Murcia editions, Boston, pp. 67-68

The ESP is considered as a curriculum to a profound needs analysis in order to satisfy the adults'/ young adults' language need in their professional life.

The ESP syllabuses are mostly based on authentic texts related to a specific professional or academic area. However, one of the famous of the published volumes to appear during this period was Swales' Writing Scientific English (1971), where chapters are based principally upon the grammatical forms most commonly found in the scientific English register. The core point in an ESP syllabus is to have a very precise frame of ELT objectives along with a detailed needs analysis and surveys to be carried out with a control group of an actual group of students for whom the syllabus designed. So in such case, the full content and teaching method to be implemented should play a very crucial role in applying the ESP syllabus to the control groups or subgroups of the study.

There are two absolute components of ESP: needs assessment and discourse analysis (Johns and Dudley-Evans 1991). The ESP needs will be covered extensively in the subsequent part of this study. However, ESP materials designers and practitioners continue their efforts to improve and expand their collection and analysis techniques. Nevertheless, the needs analysis has been the most crucial part in the ESP studies.

The second part closely related component is discourse analysis. The discourse analysis in ESP may change according to the method in the syllabus to be implemented. But in most cases, the notions and functions of the language used in the ESP syllabus content may tell us the notions and functions of the target language (TL). Recently communicative notions have employed three different methods to identify nearly 200 different linguistic devices to signal frequency in academic texts.

When considered the term 'specific' in ESP, it may imply the functions of the language as well as being a distinctive feature identifying the content of the syllabus. Because the systematic analysis of the target situations has led them to discuss the components of the TL in regard to communicative aspect and in this case, the spoken English has been made central in the implementation of the 'notional-functional' curriculum (johns 1991: 70). Apart from the curriculum, the

ESP practitioner, namely the EFL teacher, is expected to assume the following key roles in ESP according to Dudley-Evans and St. Johns 1998):

- Teacher.
- Course designer and material provider.
- Collaborator.
- Researcher.
- Evaluator.

More specific characteristics and the perspectives of ESP can be given as follows with a summary of effective components. In other words, ESP developed in the 1900's in response to demands for courses geared to practical and functional rather than educational and cultural ends starts with needs analysis and has the following defining features:

- Adult learners,
- Material designed,
- Course format and the syllabus.

1.4. The Types of ESP

From the early 1960's, English for Specific Purposes has grown to become one of the most prominent areas of the English Language Teaching today. The pioneers of this teaching approach revolted against traditional linguists who were busy describing the features of language; whereas the problem with language was to make it flexible to be used in all settings communicatively. Today, the field covers all imaginable professions in which English is instrumental, from business and commerce to biological science. This new perspective of the language could be seen as the only way to help facing the demands of a new professional world.

Do the words "specific/special" in ESP really make the English Language Teaching special/specific as the words define? It is obvious that it is the English Language Teaching for individual, professional, institutional and/ or academic purposes. The syllabus makes the instruction special of specific. Besides, it is rather different from GELT (as commonly called in the ELT profession) courses, because:

(a) The words and sentences learnt, the subject matter discussed and the authentic topic are all related to a particular field of discipline;

(b) All the materials to be used during the courses are designed to meet the needs of a specific group of learners, usually young adults (university students) and adults;

(c) It is mostly build up on the General English Language knowledge and ability.

Following are the major characteristics of ESP modified and given by Dudley-Evans and St John.

A. Absolute Characteristics

1. ESP is defined to meet specific needs of the learner.

2. ESP makes use of the underlying methodology and activities it serves;

3. ESP is centred on the language (grammar, lexis, and register), skills, discourse and genres appropriate to these activities.

B. Variable Characteristics

- * ESP may be related to or designed for specific purposes
- * ESP may use, in specific teaching situations, a different methodology From that of general English,

1.5. Reasons for the Emergence of ESP

As far ESP origins are concerned one may say that there are three important reasons which gave birth and emergence to ESP as cited by Hutchinson and Alan Waters (1987). They identified three key reasons they believe are common to the emergence of all ESP: the demand of a Brave New World, a revolution in linguistics, and focus on the learner.

1.5.1. The demand of a Brave New World

The end of the Second World War in 1945 heralded an age of enormous and unprecedented expansion in scientific, technical and economic activity on an international scale. This expansion created a new world unified and dominated by two forces – technology and commerce – which in their relentless progress soon generated a demand for an international language. For various reasons, most notably the economic power of the United States in the post-war, this role fell to English.

The effect was not to create a whole new mass of people wanting to learn English, not for the pleasure or prestige of knowing the language, but because English was the key to the international currencies of technology and commerce. But as English became the accepted international language of technology and commerce, it created a new generation of learners who knew specifically why they were learning a language – businessmen and –women who wanted to sell their products, mechanics who had to read instructions manuals, doctors who needed to keep up with developments in their field and a whole range of students whose course of study included textbooks and journals only available in English. All these and many others needed English and, most importantly, they knew why they needed it. This view is supported by Zughoul who sustains that:

"The world status of present day English is direct result of two factors: British colonialism and the emergence of the US as a strong economic and military power. The later factor, states Crystal, is what continues to explain the position of English today."⁵

1.5.2. Revolution in Linguistics

The second very important reason cited by Hutchinson et al (1987) that had a tremendous impact on the emergence of ESP was a revolution in linguistics. Flowerdew et al argue:

⁵ Zughoul, M. R., (2003): Globalization and EFL (ESL pedagogy in the Arab world). Journal of language and learning. p. 118

"A revolution in linguistics was brought by the three linguists Halliday, McIntosh and Strevens (1964) who state the view that language should be seen as a source of communication which may vary according to the situations or contexts opposed to theoretical linguists who traditionally saw language as an abstract system."⁶

Most of the work of linguists in the 1960s and 1970s of the past century reduced on the ways in which language is used in real communication contrary to the works of traditional linguist who set out to describe the features of language. Hutchinson and Waters (1987) point out that one significant discovery was in the ways that spoken and written English vary. In other words, a particular context in which English is used would impose, in a way or another, the variant of English. This idea was taken one step further. If language in different situations varies, the tailoring language instruction to meet the needs of learners in specific context is also possible. Hence, in the late 1960s and the early 1970s there were many attempts to describe English for Science and Technology.

1.5.3. Focus on the Learner

The final reason that Hutchinson and Waters (1987) mention to have influenced the emergence of ESP has more to do with psychology than linguistics. More attention was given in the 1970s of the past century to the means through which a learner acquires a language and ways in which it is learnt. Hence, there was a shift of focus from methods of language learning to the different learning strategies, different skills, different learning schemata and different motivating needs and interests that are employed by different learners. This consequently led to a focus on learners' need and designing specific courses to better meet individual needs. The result of this was a natural extension of "learner-centred" or "learning-centred" perspectives on ESP. As far ESP courses are concerned one may notice that since the focus on the learner is of a vital value, needs analysis is of equal importance, too. According to Basturkmen needs analysis can be seen as: *"The type of investigation ESP curriculum use to identify*

⁶ Flowerdew, J. and Peacock, M., (2001): *Research perspectives on English for Academic Purposes*. Cambridge University Press. p. 11

the gap between what learners already know and what they need to know in order to study or work in their specific target environments."⁷

1.6. ESP course design

ESP is known as a learner-centred approach to teaching English as a foreign or second language. It meets the needs of adult students who need to learn a foreign language for use in their specific fields, such as science, technology, medicine, and academic learning in which teachers are involved in designing ESP courses appropriate to meet students' different needs in specific fields of study. Course design in ESP according to Hutchinson and Waters is:

"The process by which the raw data about learning needs is interpreted to produce an integrated series of teaching learning experiences, whose ultimate aim is to lead the learners to a particular state of knowledge. This entails the use of the theoretical and empirical information available to produce a syllabus, to adapt or write materials in accordance with the syllabus, to develop a methodology for teaching those materials and to establish evaluation procedures by which progress towards the specific goals will be measured".⁸

The experience of planning and designing an appropriate course that suits the target ESP groups can be very challenging especially for new instructions. ESP instructors of such target groups are often faced with various complexities and problems when they lack the know-how of designing effective courses that will cover the specific needs of their students. The starting point in designing an ESP course is the identification of the students' needs which may create a sense of motivation in the students since they can see their own contribution to it.

1.6.1. Course Design

I keep six honest serving-men (They taught me all I knew.) Their names are What and Why and When and How and Where and Who (Rudyard Kipling). Why does the student need to learn? Who is going to be involved in the process?

⁷ Basturkmen, H., (2006): *Ideas and opinions in English for Specific Purposes*. Mahwahm New Jersey Lawrence Elbaum Associates, p. 15

⁸ Hutchinson, T., and Waters, A., (1987): op. cit. p. 65

This will need to cover not just the student, but all the people who may have some effect on the process: teachers, sponsors, inspectors just to name a few. Where is the learning to take place? What potential does the place provide? What limitations does it impose? When is the leaning to take place? How much time is available? How will it distributed? What does the student need to learn? What aspects of language will be needed and how will they be described? What level of proficiency must be achieved? What topic areas will need to be covered? How will the learning be achieved? What learning theory will underlie the course? What kind of methodology will be employed?

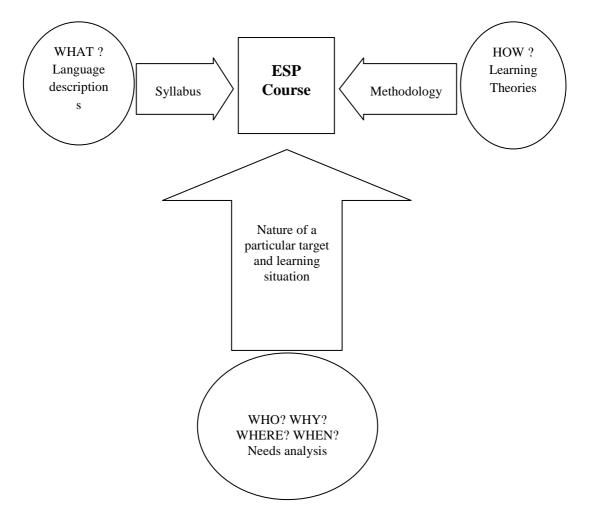


Figure 1. 2: Factors affecting ESP course design

1.6.2. Self-direction

Self-direction is a characteristic of ESP courses in that the "...point of including self-direction... is that ESP is concerned with turning learners into users" (Carter, 1983). In order for self-direction to occur, the learners must have a certain degree of freedom to decide when, what, and how they study. Carter (183) also adds that there must be a systematic attempt by teachers to teach learners how to learn by teaching them about strategies but this not a necessity.

Hutchinson and Waters (1987) offer an often-cited learning approach to ESP. They argue that other approaches give too much attention to language, whereas more attention should be given to how learners learn. They suggest that a learning needs approach is the best approach to convey learners from the starting point to the target situation. Target needs are defined by Hutchinson and Waters "*what the learner needs to do in the target situation*"⁹.

They are broken down into three categories: necessities, lacks and wants. According to Hutchinson and Waters (1987: 55) necessities are considered to be: "what the learner has to know in order to function effectively in the target situation".¹⁰

Lacks are defined by Hutchinson and Waters (1987: 56) as: "the gaps between what the learner knows and the necessities"¹¹

And wants are described by Nation (2000: 2) as: "what the learners think they need"¹²

The second focus in this approach is on learning needs, referring to many factors, including who the learners are, their socio-cultural background, learning background, age, gender, background knowledge of specialized contents, background knowledge of English, attitudes towards English, attitudes towards cultures of the English speaking world and studying English. Similar to the systemic approach, Hutchinson and Waters (1987, 1992) also recommend that needs analysis can be checked constantly. They also stress the use of multiple

⁹ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 54

¹⁰ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 55

¹¹ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 56

 $^{^{12}}$ Nation, P., (2000): Designing and improving language course. Forum N° 38, p. 2

methods of data collection, such as interviews, observation, and informal consultations with sponsors, learners and others involved to deal the complexity of target needs.

1.7. Stages in the development of ESP

To make a chronology of ESP. it is necessary to record the attempts at tackling the problems of languages for specific purposes, tackling which involves an insight into terminological key terms, as well as a sketchy inventory of the books intended for specific registers. Hutchinson and Waters pointed that:

"The early beginnings of ESP start in the 960s and that this domain of theory and practice in the teaching of English has undergone five phases: the concept of special language: register analysis, rhetorical and discourse analysis, target situation analysis, skills and strategies, a learning-centred approach."¹³

In the late 1960s and early 1970s humankind witnessed the greatest expansion of research into the nature of particular varieties of English. All along these decades ESP and EST were almost synonymous, but clarifications and distinctions between the two have been established.

¹³ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 9

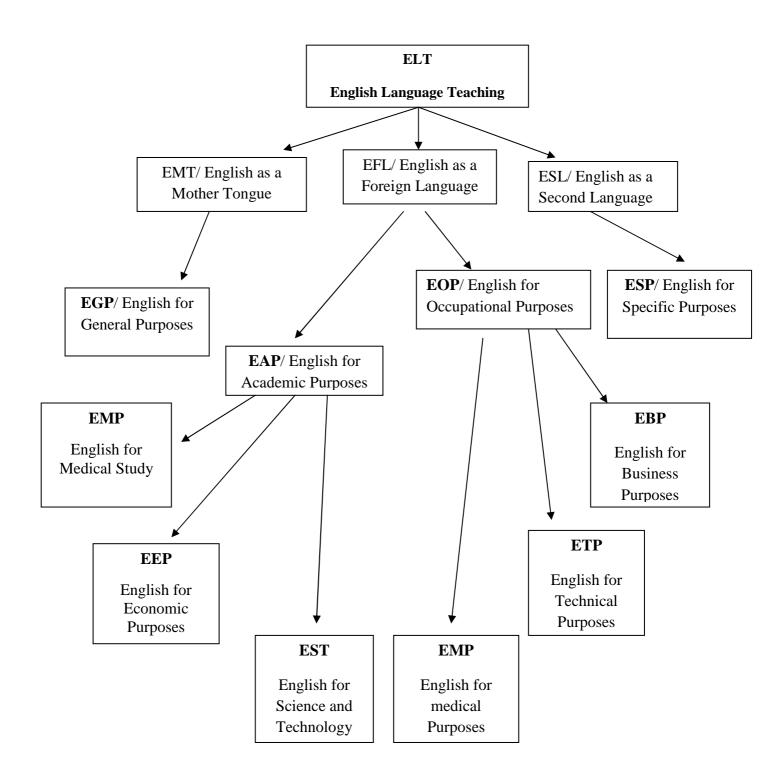


Figure 1. 3: Diagram of ESP (Adapted from Hutchinson and Waters, 1987, p.17)

1.7.1. Register Analysis: The Concept of Special Language

The first phase is register analysis. A register is a language variety which is based on the user. The scope of register is not only the choice of words, but also on the choice of other linguistic aspects. There are many registers in this world such as meeting register, truck drivers' register, school register, and military register, medical register, etc. A register is related to social context. Register analysis is derived from Halliday's systemic functional grammar which is "geared to the study of language as communication, seeing meaning in the writer's linguistic choice and systematically relating these choices to a wider socio-cultural framework" (Munday, in Hermansyah, 2005, p. 32).

First, register analysis was used to design ESP courses. Register analysis was the focus on grammar and structural and non-structural vocabulary found in target situations within the ESP environment. The underlying idea behind register analysis was; the certain grammatical and lexical forms were frequently used in scientific and technical writing that in general English (GE) (Dudley-Evans and St. Johns). Thus, the aim was to identify these forms and produce teaching materials that look these forms as their syllabus (Hutchinson and Waters, 1987). According to Spolsky:

"Register is a variety of language most likely to be used in a specific situation and with particular roles statuses involved. Examples might be at a wedding, sports broadcast or talking to a baby. A register is marked by choices of vocabulary and other aspect of styles."¹⁴

This stage in ESP development is also referred to as of the concept of special language. This stage took place mainly in the 1960s and early 1970s (Hutchinson and Waters, 1987) and the work of register analysis focused on the scientific and technical English. A course in basic scientific English compiled by Ewer and Latorre (1969) is a typical example of an ESP syllabus. Ewer and Latorre put it in the following way: *"In order to get a working idea of what this basic language consisted of, a frequency analysis of the English actually was required."*¹⁵

They move further where they reveal that "In subject, it covered ten main areas of science and a large number of individual disciplines from anatomy to technology."¹⁶

¹⁴ Spolsky, B., (1998): Sociolinguistics. Oxford University Press. p. 34

¹⁵ Ewer, J. R and Latorre, G. M. (1969) Preparing an English Course for Students of Science Language Teaching. Cambridge University Press. p. 22

¹⁶ Ewer, J. R and Latorre, G. M., (1969): op. cit. p. 23

The unexpected drawback was that it looked at the linguistics forms without attaching the overall meaning of such forms. As a result, materials produced under the banner of Register Analysis concentrated on a restricted range of grammar and vocabulary such as tense, frequency, sentences types etc. instead of language use and communication (Dudley-Evans and St. Johns, 1998). This weakness and the attempts to rectify it led to rhetorical and discourse analysis in early 1970s.

1.7.2. Rhetorical or Discourse Analysis

Since register operated almost entirely at word and sentence level, the second phase of development shifted attention to the level above the sentence and tried to find out sentences which were combined into discourse (Hutchinson and Waters, 1987). Also, West is of opinion that the reaction against register analysis in the early 1970s concentrated on the communicative values of discourse rather than the lexical and grammatical properties of register. The assumption of this stage was that the difficulties with students encountered arose from the unfamiliarity with the use of English. Consequently, their needs could only be met by a course that developed the knowledge of how sentences were combined in discourse to make meanings. According to Allen and Widdowson (1974) cited in Hutchinson and Waters (1987), it focused on the communicative values of discourse rather than the lexical and grammatical properties of register. Allen and Widdowson view the approach as follows:

"One might usefully distinguish two kinds of ability which English course at this level should aim at developing. The First ability to recognize how sentences are used in the performance of acts of communication and the ability to understand the rhetorical functioning of language use. The second is the ability to understand and manipulate the formal devices to combine sentences to create continuous passage of prose. We might say that the first has to do with rhetorical coherence of discourse, the second with the grammatical cohesion of text."¹⁷

They explain further:

¹⁷ Allen and Widdowson, H. G., (1974): Teaching the Communicative Use in English. *Review and Applied Linguistics*. P. 10

"The difficulties students experience does not much arise from defective knowledge of the system of English but from unfamiliarity with English (...) And that their needs can be met by a course which develops knowledge of different communication acts" 18

The aim, therefore, was to identify organisational patterns in texts and specify the linguistic means by which the patterns are signalled. It is these patterns that will form ESP syllabus. Therefore, the discourse analysis approach focused on the way sentences are used in the performance of acts of communication and developed materials used on functions. Such definitions included definitions, generalizations, inductive statements and deductive statements, descriptions of processes, descriptions of sequences of events, and descriptions of devices. The experts in the field of discourse analysis were Lackstrom, Selinker and Trimble whose focus was on the text rather than on the sentence and the writer's purpose rather than on the form (Robinson, 1991). In practice, according to West (1998), this approach tended to concentrate on how sentences are used in the performance of acts of communication and to generate materials based on functions.

1.7.3. Target Situation Analysis (TSA)

Due to the limitations of genre analysis, its research was hardly applied to pedagogy. In the mid-1970, materials developers came to see learners' purposes rather than specialist language as the driving force behind ESP. The conception of need- target situation needs, as analytical approach, was to lead the way. One systemizes the course and places the learners' needs at the of course design process. Munby's model of needs analysis (1978) clearly established the place of needs as central to ESP. In order to establish needs, the target situation for which learners were being prepared to be defined. Chambers define the latter as follows:

"By the language I mean the language of the target situation. Thus, needs analysis should be concerned with the establishment of communicative needs and their realizations, resulting from an analysis of the communication in

¹⁸ Allen and Widdowson, H. G., (1974): op. cit. p. 24

the target situation- what I will refer to from now on as Target Situation Analysis (TSA)."¹⁹

The conception of pedagogic needs came to complement target situation needs analysis. This includes three types of analysis: deficiency analysis gives us information about target situation needs learners lack of feel they lack (Allwright, 1982). Specialized language forms related to themes were examined, and procedural steps to address the needs emphasized (Song, 2006). This stage, though contributed nothing to the development of ESP, set the existing knowledge on a more specific basis by relating language analysis to the reasons why a learner needs to learn language. The expectations of this stage, is that the linguistic features of a learner's specific situation should be identified and used to form the syllabus.

1.7.4. Analysis of Study Skills and Strategies

Strategy analysis seeks to establish to establish learners' preferred learning styles and strategies (Allwright, 1982), means analysis investigates the educational environment in which ESP course is take place (Swales, 1989). The assumption of this stage was that underlying all language use there were common reasoning and interpreting processes, which, regardless of the surface form, enabled us to extract meaning from discourse (Hutchinson and Waters, 1987).

Therefore, of language in itself was not sufficient and the thought processes should be addressed. This is because the thinking processes that underlie language use enable students to extract meaning from a discourse. ESP teachers focused on the teaching of study skills and assumed that these skills learnt through exercises could be transferred to students' own specific academic studies (Dudley-Evans and St Johns); for instance, the meaning of words could be guessed from the context and the type of a text could also be known by observing the visual layout. ESP at this stage looked for particular skills and strategies that are peculiar to different situations. The emphasis on this stage was on how words are combined to make meaning.

¹⁹ Chambers, F. (1980): A Re-evaluation of Needs Analysis. ESP Journal. Vol. 1.1. p. 18

Finally, the attention to strategy analysis gave rise to a new generation of ESP materials based on the conception of learning, that is, learning-centred approaches: Hutchinson and Waters write:

"Our concern in ESP is not with language use – although. This will help to define the course objective. Our Concern is with language learning. We cannot simply assume that describing and exemplifying what people do with language will enable someone to learn it. A truly valid approach to ESP must be based on an underlying of the processes of language learning."²⁰

1.8. The Basic Conceptions/ Principles of ESP

Five conceptions are considered to be the foundations, essential features or a basic principle of ESP. Swales (1990) uses the term 'enduring conceptions' to refer to them. These five conceptions are: authenticity, research-base, language/text, need and learning/ methodology. These five conceptions come from both the real world (the 'target situation' of the ESP) and ESP pedagogy. It is therefore crucial to discuss each of them in an attempt to survey the development and directions of ESP. As a matter of fact, each of the conceptions will identify a focus-based approach to ESP and serves as a contribution to the concept of ESP itself.

1.8.1. Authenticity

The earliest concept to emerge from the development of ESP was that of authenticity. The first generation of ESP materials that appeared in the mid-1960s took skills as their principal means of selection (Close, 1992). The underlying concept is that ESP teachers would need to establish the skills priorities of students in order to develop appropriate ESP teaching materials. As Close (1992) argues, the conception of authenticity was central to the approach taken to the reading skill.

The main objective of ESP is usually developing communicative competence. This could be achieved through an adoption of authentic materials that serve the needs of learners in different fields such as business, technology

²⁰ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 53

etc. Some courses prepare learners for various academic programs. Others prepare learners for work in the fields such medicine, engineering etc. the problem that frequently appears with such ESP courses is the teachers' dependence on published textbooks available. These textbooks rarely include authentic materials in their design.

Skills-based approaches to ESP have enlarged the conception in two principal ways. First, authenticity of text was broadened as to include texts other than the ones that are in textbooks, and, at the same time, was narrowed in the sense that in skill a distinction is made between different types of texts generated by a given skill. Reading, for example, maybe sub-divided into reading reports, reading technical journals, reading instructions manuals, etc. Secondly, the conception of authenticity was enlarged to include authenticity of task. In effect, this meant designing tasks requiring students to process (deal with, treat) texts as they would in the real world. In other words, ESP learners were required to use ESP materials which employed the same skills and strategies as would be required in the target situation (Morrow, 1980).

1.8.2. Research Base

Halliday, Macintosh and Strevens (1964) were the first scholars, who pointed to the importance of, and the need for, a research base for ESP, set out in one of the earliest discussions of ESP. This was a call for a program of research into ESP registers which was taken up by several early ESP materials writers, such as Herbert (1965) or Ewer and Latorre (1969), who analyzed large corpora of specialist texts in order to establish the statistical contours of different registers. The principal limitation of this approach was its research base but its conception of text as register, restricting the analysis to the word and sentence levels as register was invariably defined in these terms. The procedure adopted for the analysis was twofold. The main structural words and non-structural vocabulary were identified by visual scanning. For the main sentence patterns, a small representative-sample count was made.

1.8.3 Language/ Text

The reaction against register analysis in the early 1970s concentrated on the communicative values of discourse rather than lexical and grammatical properties of register. The approach was clearly set out by two of its advocates, Allen and Widdowson (1974). They specifically argued that one might usefully distinguish two kinds of ability which an English course at ESP level should aim at developing. The first is the ability to recognize how sentences are used in performance of acts of communication, or the ability to understand the rhetorical functioning of language in use. The second is the ability to recognize and manipulate the formal devices which are used to combine sentences to create continuous passages of prose. One might say that the first that has to do with rhetorical coherence of discourse, the second with the grammatical cohesion of text.

As an offspring of discourse analysis, the genre-analysis approach seeks to see text as a whole rather than as a collection of isolated units. According to Johnson (1995), this is achieved by seeking to identify the overall pattern of the text through a series of phases or 'moves'. The major difference between discourse analysis and genre analysis is that, while discourse analysis identifies the functional components of text, genre analysis enables the materials writer to sequence these functions into a series to capture the overall structure of such texts. The limitation of genre analysis has been a disappointing lack of application of research to pedagogy. There are few examples of teaching materials based on genre-analysis research.

1.8.4 Learning Needs

One of the most important aspects that have been addressed frequently in the literature on ESP is learning needs. This should not be a surprise for each and every specific domain would impose its own needs, and it goes without saying that the needs on the ground do not work with another field which would defiantly dictate its own requirements. All language teaching must be designed for "the specific learning and language use purposes of identified groups of students" (Mackay and Mountford, 1978: 6). Thus, a systematic analysis of these specific learning needs and language use purposes (communicative needs) is a pre-requisite for making the content of a language program relevant to the learners' needs.

The definition of purposes is essentially a decision that should lead to a situation where ESP assumes a valued place in the school/ university curriculum, particularly if the target population (learners will be taught ESP) are aware of the ways in which this component of the language teaching program is likely to help them achieve immediate learning needs and potential professional needs. Such definition should also yield a more systematic approach, among teachers, to syllabus design, methodology of teaching and assessment practices. A general approach that is oriented towards integrating language and the content of students' disciplines of specialization is likely to produce course content and a methodology of teaching that emphasize the needs of learners and that provide ample opportunities to use the language in meaningful situations.

Before beginning a needs analysis one must first answer the following crucial question: "Will the students use English at university or in their jobs after graduation?" If the answer is no, then ESP is a reasonable option for the university's English program. The university will have to justify its existence via other means. If the answer is yes, however, the ESP is probably the most intelligent option for the university curriculum. ESP begins with some basic questions to survey what will be ended.

- Will students use English at university or in their jobs after graduation?
- In what situations?
- For what purposes?
- What language skills will be required (reading, writing, listening, speaking?
- What are the significant characteristics of the language in these situations (lexicon, grammar, spoken scripts, written texts, other characteristics)?

• What extra linguistic knowledge of academia, specific disciplines, specific vacations, or specific professions is required for successful English usage in Algeria?

Needs analysis was firmly established in the mid-1970s as course designers came to see learners' purposes rather than specialist language as the driving force behind ESP. Early instruments, notably Munby's model (1978), established needs by investigating the target situation for which learners were being prepared. Munby's model clearly established the place of needs as central to ESP, indeed the necessary starting point in materials or course design.

However, his model has been widely criticized for two apparently conflicting reasons: (i) its over-fullness in design, and (ii) what it fails to take into account (that is, socio-political considerations, logistical considerations, administrative considerations, psycho-pedagogic, and methodological considerations.

1.8.4.1. Analysis of Learning Needs

The concern in each stage outlined so far is with describing what people do with language, that is, language use. At this stage, emphasis shifted to understanding the processes of language learning (Hutchinson and Waters, 1987: 14). This is the next stage of ESP development: the learning-centred approach. It involves considering the process of learning and student motivation, working out what is needed to enable students to reach the target, exploiting in the ESP classroom skills which students develop from their specific study and taking into account the fact that different students learn in different ways (Dudley-Evans and St. Johns, 1998).

Hutchinson and Waters (1987) offer an often-cited learning approach to ESP. They argue that other approaches give too much attention to language, whereas more attention should be given to how learners learn. They suggest that a learning needs approach is the best approach to convey learners from the starting

point to the target situation. Target needs are defined by Hutchinson and Waters as: "*what the learner needs to do in the target situation*"²¹

They are broken down into three categories: necessities, lacks and wants. According to Hutchinson and Waters necessities are considered to be: "what the learner has to know in order to function effectively in the target situation"²²

Lacks are defined by Hutchinson and Waters as: "*the gaps between what the learner knows and the necessities*".²³ And wants are described by Nation (2000: 2) as: "*what the learners think they need*".²⁴

The second focus in this approach is on learning needs, referring to many factors, including who the learners are, their socio-cultural background, learning background, age, gender, background knowledge of specialized contents, background knowledge of English, attitudes towards English, attitudes towards cultures of the English speaking world and studying English. Similar to the systemic approach, Hutchinson and Waters (1987, 1992) also recommend that needs analysis can be checked constantly. They also stress the use of multiple methods of data collection, such as interviews, observation, and informal consultations with sponsors, learners and others involved to deal the complexity of target needs.

Most specialists such as (Nunan, 1988; Hutchinson and Waters, 1987; Dudley-Evans and St. Johns, 1988) view learner-centred learning as an important typical example shift in ESP teaching. In such an environment, the focus is shifted to the constructive role of the learner, which differentiates it from a teacher-centred model in which knowledge is transmitted from teacher to learner. When ESP learners take some responsibility for their own learning and are invited to negotiate some aspects of the course design, the subject matter and course content has relevance for the learner as they feel motivated to become

²¹ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 54

²² Hutchinson, T., and Waters, A. (1987) : op. cit. p. 55

²³ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 56

²⁴ Nation, P., (2000): op. cit. p. 2

more involved in their learning and often seem to take part more actively in the class.

1.8.5. Learning/Methodology

As a result of the attention given to strategy analysis, a new generation of ESP materials was founded. This new generation of materials is based on conceptions of language or simply conception of need. The concern was with language learning rather than language use. It was no longer simply assumed that describing and exemplifying what people do with language would enable someone to learn it. A truly valid approach to ESP would be based on an understanding of the process of language learning. Hutchinson and Waters (1987) called this approach the learning-centred approach and stressed the importance of a lively, interesting and relevant teaching/learning style in ESP materials.

In the context of a language program that emphasizes the needs of the learners, anything but a learner/learning-centred syllabus and methodology is bound to create contradictions that will negatively affect students' perceptions of the program. As advocated in the literature on communicative language teaching (CLT), content and teaching-learning procedures must take into account the interests and concerns of the learners, as well as the socio-economic and cultural context in which the language program is to be implemented. Hutchinson and Waters state: "(...) syllabus normally refers to "what is to be learnt with some indications of the order in which the items should be learnt" and "the interpretations that it is put to"²⁵

In this case, the main orientation of such a syllabus is determined by the needs of the learners as discussed above, with an indication of how the content may be most effectively used to cater for these needs. As mentioned earlier, and in conformity with the interdisciplinary advocated for an ESP program, the syllabus will also incorporate aspects of students' discipline of study which will reinforce their motivation and the usefulness of the language to be learnt.

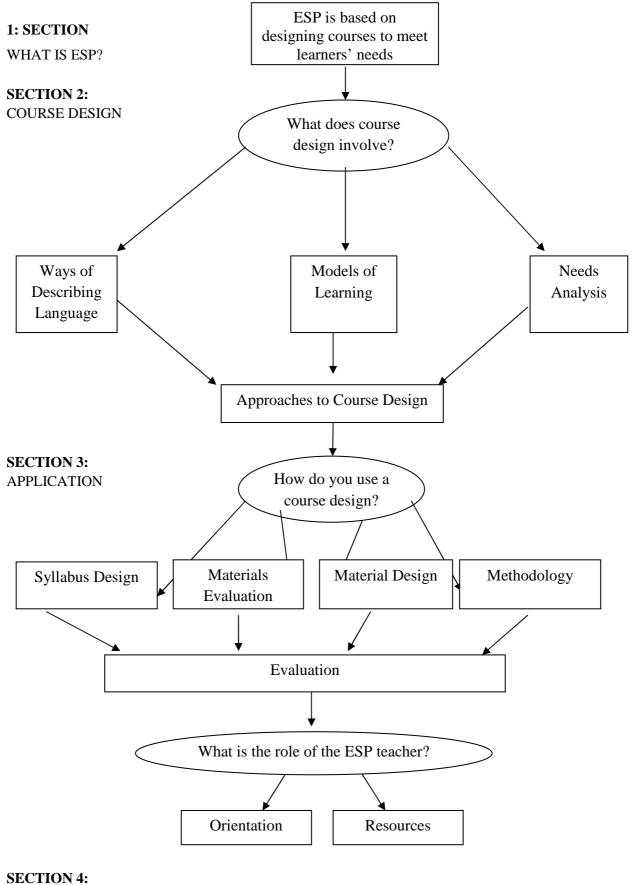
²⁵ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 81

"Learner-learning centred", "task-based", "activity-based" and "problemsolving" is all attributes which are generally associated with an effectively communicative-oriented approach. And, as may be deduced from the recent literature on ESP, this orientation is characteristic of special purpose language teaching in general and ESP in particular. Such an approach aims, among other things, at helping learners develop the skills associated with language learning, as well as skills related to their own discipline of study. Examples of skills are "information", "mental", "social", and "action" skills.

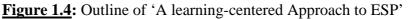
However, in order for an ESP program to be successful, it would not be sufficient to identify learners' needs, and create syllabuses and adopt methodologies that serve such a need; that is not the whole picture. One very important issue in the context of ESP is program assessment. Assessment involves an evaluation of the learners' ability to communicate effectively using the target language, as well as their ability to participate fully in the target discourse communities which have been initially defined as relevant to their needs.

The formative purpose of such assessment is reflected in the possibility for the learners to use it as feedback on how they can improve their performance, and for the teacher on how she/he can adapt his/her teaching to better fit with the needs of the learners.

Finally, an ESP program that aims to meet the ever-changing needs of the learners will include an on-going system of evaluation, aiming to provide information on how the program itself can be improved through the introduction of changes that are deemed necessary.



THE TEACHER



1.9. The difference between ESP and EGP

The question of the difference between ESP and EGP has been addressed in the literature in terms of theory and practice. Hutchinson and Waters (1987) state that there is no difference between the two in theory; however, there is a great deal of difference in practice. ESP differs from EGP in the sense that the words and sentences learnt and the subject matter discussed are all relevant to a particular field or discipline. The design of syllabuses for ESP is directed towards serving the needs of learners seeking for or developing themselves in a particular occupation or specializing in a specific academic field. ESP courses make use of vocabulary tasks related to field such as negotiation skills and effective techniques for oral presentations. ESP also increases learners' skills in using English.

A deeper investigation, however, of the difference between the two is required. English for General Purposes (EGP) is essentially the English language education in junior and secondary schools. Learners are introduced to the sounds and symbols of English, as well as to the lexical/grammatical/rhetorical elements that compose spoken and written discourse. There is a particular situation targeted in this kind of language learning. Rather, it focuses on applications in general situations: appropriate dialogue with restaurant staff, bank tellers, postal clerks, telephone operators, English teachers, and party guests as well as lessons on how to read and write the English typically found in textbooks, newspapers, magazines, stories, EGP curriculums also cultural aspects on the second language. EGP conducted in English-speaking countries is typically called ESL, and EGP conducted in non-English-speaking countries is normally called EFL. EGP is typically viewed as a level that precedes higher-level instruction in ESP if ESP prams to yield satisfactory results.

English for Specific Purposes, however, is that king of English teaching that builds upon what has been acquired earlier in EGP with a more restricted focus. It aims at acquainting learners with the kind of language needed in a particular domain, vocation, or occupation. In other words, its main objective is to meet specific needs of the learners. Of course, this indicates that there is no fixed methodology of ESP that can be applicable in all situations, but rather each situation and particular needs of learners belonging to a particular domain impose a certain methodology of teaching.

Thus, ESP is centred on the language appropriate to the activities of a given discipline. Hutchinson and Waters think that: "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."²⁶

In this connection, Dudley-Evans (1988) explains that ESP may not always focus on the language for one specific discipline or occupation, such as English for Engineering. University instruction that introduces students to common features of academic discourse in the science or humanities, frequently called English for Academic Purposes (EAP), is equally ESP.

1.10. Different types of ESP

As it has been said, English is a sub-field of ELT. The latter also has its proper sub-sections, too. David Carter (1983) identifies three types of ESP:

1.10.1. English as a restricted language

The languages used by air affair controllers or by waiters are examples of English as restricted language. Mackay and Mountford clearly illustrate the difference between restricted language and language with its statement:

"The language of international air-traffic control could be regarded as 'special', in the sense that the repertoire required by the controller is strictly limited and can be accurately determined situationally, as might be the linguistic needs of a dining-room waiter or air-hostess. However, such restricted repertoires are not languages, just as a tourist phrase book is grammar. Knowing a restricted 'language' would not allow the speaker to communicate effectively in novel situation, or in contexts outside the vocational environment."²⁷

²⁶ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 19

²⁷ Mackay, R., and Mountford, A., (1978): English for Specific Purposes: A case study approach. Longman. London. pp. 4-5

1.10.2. English for Academic and Occupational Purposes

EOP refers to English which is either used or learned to fulfil occupational purposes. Kennedy et al write: "EOP is taught in a situation in which learners need to use English as part of their work professions."²⁸

A more recent definition in which Dudley et al assert that: "the term EOP refers to English that is not for academic purposes, it includes professional purposes in administration, medicine, law and vocational for non-professional in work or pre-study work."²⁹

In the "Tree of ELT" (Hutchinson and Waters, 1987), ESP is broken down into three branches:

a) English for Science and Technology (EST)

b) English for Business and Economics (EBS), and

c) English for Social Studies (ESS)

Each of these subject areas is further divided into two branches:

(i) English for Academic Purposes (EAP) and

(ii) English for Occupational Purposes (EOP)

An example of EOP for the EST branch is 'English for technicians' whereas an example for the EST branch is 'English for Social Studies'. Hutchinson and Waters note that there is a clear distinction between EAP and EOP: "*People can work and study simultaneously; it is also likely that in many cases the language learnt for immediate use in a study environment will be used later when the*" student takes up, or return to a job"³⁰.

Perhaps this explains Carter's rationale for categorizing EAP and EOP under the same type of ESP. It appears that Carter is implying that the end purpose of both EAP and EOP are one and the same employment.

1.11. Needs Analysis

Needs analysis, therefore, is a process which is undertaken by trainers, teachers and course designers to ascertain the pre-requisites for developing a

²⁸ Kennedy, C. H., and Bolitho, R., (1984): English for Specific Purposes. Hong Kong Mc Millan Publishers LTD. p. 4

²⁹ Dudley-Evans, T., and St John, M. J., (1998): op. cit. p. 7

³⁰ Hutchinson, T., and Waters, A. (1987) : op. cit. p. 23

course and its implementation i.e. it is the act of providing all things and collecting all the information about students. For John (1990), needs analysis is the first step in course design and it provides validity and relevancy for all subsequent course design activities.

A well accepted definition of needs analysis was given by Brown. He defines needs analysis "*The activities involved in gathering information that will serve as the basis for developing a curriculum that will meet the learning needs of a particular group of students.*"³¹

1.11.1. Target and Learning Needs

Target and learning needs are very important definitions of needs types. The main differences between the two is that target needs are what the students need in order to function successfully in the target situation, whereas the learning needs are what the learners need to do in order to meet the target needs. Hutchinson and Waters (1987) examine target needs in terms of necessities, lacks, and wants.

Necessities are the needs required in the target situation in which students use their target language. According to Hutchinson and Waters necessities are:

"The type of needs determined by the demands of the target situation; that is, what the learner has to know in order to function effectively in the target situation. For example, businessmen or –women might need to understand business letters, to communicate effectively at sales conferences, to get the necessary information from sales catalogues and so on".³²

Lacks are the gap between the target proficiency, i.e. the language required by the target situation, and the students' existing proficiency. Wants are the students' own perceptions of their needs.

1.11.2. Situational and Communicative Needs

One of the other classifications of needs types are situational and communicative needs. Situational needs focus on the general parameters of a

³¹ Brown, J. D., (2001): Using surveys in language programme. Cambridge University Press. 33

³² Hutchinson, T., and Waters, A. (1987) : op. cit. p. 55

language program and involve the goals, expectations, learning styles, and proficiency levels of learners. It also takes into consideration the teachers' expectations, teaching styles and techniques. Communication needs on the other hand, refer to the students' requirement in the target situation. They are concerned with the setting in which the students will use the target language, the learners' role in relationships in target situation, necessary language skills, the students' future interactions and language tasks, and the level of proficiency that is required by the students' target situation (Richards, 1990).

1.11.3. ESP Materials

Material selection, adaptation, or writing is an important area in ESP teaching, representing a practical result of effective course development and providing students with materials that will equip them with the knowledge they will need in their future life. According to Brain Tomlinson:

"Materials could obviously be cassettes, videos, CD-ROMs, dictionaries, grammar books, readers, workbooks or photocopied exercises. They could also be newspapers, food packages, photographs, live talks by invented native speakers, instruction given by a teacher, talks written or cards or discussion between learners"³³

The ESP course designing process involves one last major question: WHAT exactly are materials used for? After having completed the needs analysis, after having chosen the teaching theory, the teacher has to decide what materials he/she is going use with his/her students. She/he has three possibilities of actually transforming his/ her course design in teaching materials:

- Materials Evaluation: a process of selecting from already existing materials.
- Materials development: a process of writing new materials.
- Materials adaptation: a process of selecting and modifying existing materials.

³³ Brain, T., (1980): English for Specific Purposes. A pedagogical approach. C.P.U editions. P. 2

The choice of one of these possibilities depends not only on the result of the needs analysis process or on the materials available, but also on the teacher's experience in teaching ESP courses. Materials evaluation seems to be better and handier choice for a teacher who tries to design an ESP course for a particular group of students. It offers him/her the possibility of choosing among many materials developed by specialists, combining them according to his/ her students' needs, of changing them according to the target situation. Materials evaluation is an easy process.

Conclusion of the chapter

ESP is that kind of English teaching that builds upon what has been acquired earlier in EGP with a more restricted focus. It aims at acquainting the students with the kind of language needed in particular domain, vocation, or occupation. It has received much attention due to the dominance of English in the fields of economics, media, technology, science, law, and medicine; each of these fields requires its unique way of teaching based on the needs of the students. In this chapter ESP is examined in terms of its distinguishing aspects from ELT and its different types, in addition to the process of needs assessment including its various types and modals that are used a basic element in the course design and materials development. And also it discusses the key roles of the ESP teachers since they are the first motivator in the ESP classroom.

In the next chapter, the presentation of the methodology where we introduced the study case will be dealt with.

CHAPTER TWO METHODOLOGY

Chapter Two

Methodology

Introduction

- 2.1. The Faculty of Engineering at Djillali Liabès University
- 2.2. The Administration

2.2.1. The samples

2.2.1.1. The Students' Profile

2.2.1.2. The Teachers' Profile

2.3. Description of the Students' Questionnaires

2.3.1. Analysis of the Students 'Questionnaires

2.4. Description of the Teachers' Questionnaires

2.4.1. Analysis of the Teachers 'Questionnaires

Conclusion

Introduction

The present chapter consists of the presentation of the methodology where we introduced the study case. It is important to mention that scientific researches relied basically on responses of interviewed informants, their answers to questionnaires and also comportments during a class observation.

Thus, in addition to the class observation, a questionnaire was set for both teachers and students. The main objective is to gather a set of information about how ESP is perceived and what are the main difficulties that affect either teachers in preparing their courses and also learners in terms of fulfilling their streams.

This chapter is devoted to the learning situation in which English language is taught particularly in the Mechanical Engineering Department at Djillali Liabès University of Sidi Bel Abbes. The first section presents the position of English as a global language, the classification of English usage, and the process of teaching/ learning EST and its importance in the field of engineering studies. The second section on the other hand describes the faculty in the study occurs and the status of the English module, the main objectives of the study.

The course is designed for final third year students whose major discipline is Engineering. Students, in general, enjoy this course that will make them practitioners and course designers for specific purposes. The course guide is meant to give them a general overview of the necessity of being in contact with such a foreign language. It will also show them what the aims to attain, what course materials they will be using and how to work their way through these materials. It suggests some general guidelines for the amount of time they are likely to spend on each unit of the course. It also gives them some guidance on their tutor-marked assignments. The course should be taken as self-study. They are expected to complete it in one semester of about three months with their facilitator helping out.

2.1. The Faculty of Engineering at Djillali Liabès University

The faculty of Engineering at Djillali Liabès University of Sidi Bel Abbes consists of five different departments located in different places of the university. It includes the department of computer science, the department of mechanical engineering, the civil engineering department, the department of electronics and the electrical engineering department.

The Mechanical Engineering Department includes a great number of students divided in several options started from the second year of undergraduate studies. Like in other faculties the faculty of Engineering adopted the new system LMD (License, Master, and Doctorate) recently, the most important thing in this system is that it is international and the student has the facilitation to continue his/her postgraduate studies after having the license degree. The role of English as foremost language of science and technology could not go unnoticed in Algeria, in which it has gained more and more attention and it is taught now almost in all universities and in different fields.

In the Mechanical Engineering Department, English is attributed the label of a secondary subject matter for one hour and half per week with less coefficient (1) and credit (1) with the other modules. The most remarkable thing in fact is that, ESP lectures starts three or four weeks later after the official date fixed for the beginning of all courses and it ends before them. Besides, the administration could not provide teachers and students with the appropriate materials (textbooks, magazines, internet and visual aids) the teacher is responsible for designing a course, and to get photocopies of it. Furthermore, the teacher has no support outside and no administrative help especially about syllabus design, he/she is responsible to design syllabus and to provide materials even if they are not suitable to reach students' objectives. All these factors affect the motivation and attendance of students.

2.2. The Administration

The data also is gained from the administrative staff especially the head of the mechanical Engineering Department who has been working in this department for more than ten years as a teacher and for two years as a head of the department. He welcomes the researcher and provides him with the necessary information he needs in his investigation. Teachers and the head of the department are all agreed that there is an absence of an agreed syllabus of the English module and the lack of teaching materials that makes the teaching learning process rather ambiguous.

2.2.1. The samples

2.2.1.1. The students' Profile

The population involves in this study has a direct relationship with the English teaching and learning situation in the faculty of Engineering at Djillali Liabès University. There are forty six students of mechanical Engineering from both genders male and female assigns at random from different groups. The department receives students awarded with the baccalaureate from different scientific, and technical streams.

The knowledge varies from one student to another; most of them are adults from twenty to thirty years old, the majority are Algerians with the exception of some students from Africa; their level of English ranges from beginner to intermediate, there is to some extent awareness about the importance of English in their specialization, and of its usefulness to fulfil their needs. Next, they share many similarities about their needs and ambitions with a natural varied learning styles and strategies. In addition, they have one session a week of English for one hour and a half.

2.2.1.2. The Teachers' Profile

The ESP teachers involved in this study are required to elicit information about their perspectives on their students' interactions, and motivation in the classroom. Accordingly, these informants are selected at random regardless of their age, sex, and length of experience in their teaching career. They are twelve English teachers in four various faculties of Djillali Liabès University (economy, computing, medical sciences and of course Engineering). Seven full time teachers in different departments with magister degree, two with a doctorate degree as part time teachers and three with a degree of license but preparing, meanwhile, their magister.

In addition, all these teachers have no special training before being teachers of ESP in the different faculties. The rationale behind including them in this study is twofold; first, to gain more relevant and in depth data since they are the direct observers of their students and, second, to gain additional guidance in order to ensure that the research is conducted appropriately.

It is necessary to mention that enough time was allowed to these teachers in order to work out their questionnaires. The aim was to have a large sample and a variety of answers.

2.3. Description of the Students' Questionnaire

The student's questionnaire of the present study was addressed to forty six Mechanical Engineering Students during one hour and half. Before dealing in details with the fifteen question that constitute the questionnaire addressed to the Mechanical Engineering Students, it is essential to emphasize the fact that a certain number of students either have partly answered the questionnaire or left parts of the questions unanswered. Robinson mentions that this alternative in the use of the questionnaire: *"The disadvantage is that not many people will bother to fill it and return it."*³⁴

One can conclude in regards with the results which have been reported that those students have either felt perplexed to answer because of some points appeared for discussion or simply because they have not understood the questions. Finally, the summary of the results have been achieved only on the passionate students who have completed the questionnaire.

³⁴ Robinson, P., (1991): ESP today. A practioner's Guide. New York Prentice Hall. p. 2

2.3.1. Analysis of the Students' Questionnaire * Students' perceptions about the ESP courses

Question1: According to you, English language is considered as:

Foreign language	42%
Second language	10%
Language of communication	48%

In Algeria, the status of English language is totally definitively as a foreign language. Talks and other researches don't stop developing the place that may be having this language while for many questioned subjects it seems improvident. 42% people think that English language may be considered as a foreign language while 48% enlarge their opinion as they affirm it should be the language of technology. However, we notice 10% thinking English as a language of communication. We should explain such a situation by the fact that the learning process seem to appoint learners within ideal conditions. For them, it is an additive tonus within the scientific research. Media shouldn't be neglected as they guide students in terms of improving their English.

Question 2: Do you have any motivation toward English language?

In order to justify their answers, the questioned students associate their motivation to the need of succeeding in their studies. They sustain the thesis that their apprenticeship should be consistent as most of the documentation is written in English. 56% students avow that they have a great motivation toward such a language while only 12% declare they don't have any. The reasons seem personal as they didn't justify their choice. About the rest of the questioned people, 32% think the cultural parameter is the most dominant as they communicate with others using English. In this context, we cannot minimize the psychological aspects as students, most of them, don't feel at ease when dealing with English language, especially when they are asked to produce written works.

Question 3: The problem of English language is well spread among students at university. What are the main reasons?

Within such a context, the answers were evidently predicable as the informants apprehend teaching English at university. They affirm the fact of the previous backgrounds were not enough considered. English at the primary and high school levels was not correctly taught. Most of the questioned people (90%) feel unable to fulfill a regular stream without feeling real difficulties. They add they are still suffering from the poor vocabulary and incapacity to understand. Either in oral English and the written one, the problem is still current. Only 10% students think they don't have any problem with English language.

Purposeful	60 %
Difficult	40 %
Boring and useless	00 %

When asking this question, 60% students thought that English was purposeful and very important in their field indentifying the reason behind as the spread and necessity of English in scientific and technological domains. Kennedy and Bolitho point out: "Much of the demand for ESP has come from scientists and technologists who need to learn English for a number of purposes connected with their specialism."³⁵

Whereas 40% students thought that it was difficult due to the lack of encouragement and support in the classroom. On the other hand, this question suggests that it is possible to get a full appreciation of the motivation of students related to English learning. According to Kennedy and Bolitho, this motivation corresponds to the highest level of motivation that can be met in ESP students: *"Level One, the highest level, when English is required to obtain a degree or a desirable job or to get a promotion."*³⁶

³⁵ Kennedy, C. H., and Bolitho, R., (1984): op. cit. p. 6

³⁶ Kennedy, C. H., and Bolitho, R., (1984): op. cit. p. 15

So, Kennedy and Bolitho cited this motivation and defined it as: *"instrumental motivation where English is seen as a means to achieving some practical or professional purpose)…."*³⁷

Indeed, this motivation has to be taken into consideration in terms of specific needs suggested by students. Kennedy and Bolitho (1984: 14) consider that: "It is possible to find out a student's motivation for learning English and match the content of the course of this motivation,"³⁸

Question 5: How do you evaluate your perception aptitudes during an English course?

Acceptable, this is the minority's opinion (18%). They justify their answers by the fact they are not always in permanent contact with the language. Also because of the teacher's attitude only toward those whom feel at their ease to ask or answer questions. In the other hand, 82% judge their perception aptitudes weak. Moreover, they feel unable to understand and do activities. In such a module, their marks are often less than average.

Question 6: Do you think that the weekly English time teaching is well enough?

The students' implication within models and ways of conveying science is insignificant. Teachers try to create among their learners some comportments and scientific attitudes that may help them to feel autonomous when practicing written tasks. 70% students think the time allocated to such a module is deeply insignificant. As a palliative task, they hope that more English courses should be consequently planned. Therefore, 30% students believe that English courses are not so important rather than technical modules. They prefer more directed works and Engineering practices.

³⁷ Kennedy, C. H., and Bolitho, R., (1984): op. cit. p. 17

³⁸ Kennedy, C. H., and Bolitho, R., (1984): op. cit. p. 14

Question 7: Do you have any difficulties in understanding scientific discourses in English?

Yes	80 %
- No	20 %

The majority of students 80% found it difficult to understand scientific discourses in English and they have suggested more practice in the classroom to be able to write and understand scientific terms in English. They also hope if their teacher could simplify texts and use accessible vocabulary.

Question 8: Do you think that ESP will be useful for you?

Yes	100 %	
No	00 %	

All students think that ESP courses are useful, because they need it in oral and written communication i.e. being able to read materials that they may encounter when using the internet, to provide answers during classroom discussions and exams, to prepare presentations and also to write technical reports.

Question 9: How important for you to read, listen, speak, and write in English?

Very important	76 %
Important	20 %
Less important	4 %

All the students answered that the four language skills were very important to learn in their field due to its importance and necessity during their courses and professional lives when the language skills were needed such as reading articles, taking notes during meetings or seminars, and writing technical or projects. Therefore, 20 % students think it is just important, also we notice that only 4 % don't rely on English language to realize their technical activities.

Question 10: How well do you think you need English to be successful in your field?

Very well	90 %
Well	8 %
Not very well	2 %

To this question, 90% students think that they have to be very well in English, they said that this era of globalisation English is the demand of the time. Thus, we get 8% of questioned people thinking well needed as a language of success. Only 2% didn't express themselves.

Question 11: Through which of the following materials do you prefer to learn?

Videos	60 %	
Text books	5 %	
Dialogues	15%	
Articles	20 %	

When asking about the teaching materials, 60% students preferred the use of video in which it is one of the most important audio visual materials that help them to study the language in their real context. 20% students preferred to learn through articles since it helps to practice the reading skills such as summarizing and taking notes, and the others (15%) choose dialogues while learning because it helps them to speak in front of the audience. Only 5% students think that text books may probably help them to learn.

Question 12: What types of tests do you prefer?

Oral tests	50%
Written tests	50%

50% students preferred oral tests and the others preferred written tests because they think that it was the easiest and gave them the opportunity to practice the language orally.

Question 13: Are you	motivated to	learn English?
-----------------------------	--------------	----------------

Yes	30 %
No	70 %

70% students think that they are not positively motivated towards using English for their studies providing the reasons for their lack of motivation as the lack of teachers support and efforts and also the lack of practice in the classroom. They enlarge their opinion by the fact English was not efficiently considered during the periods before university (notably middle and high schools). However, 30% feel motivated to learn English as it helps them to resolve plenty of duties.

Question 14: How do you find your teacher methodology in the classroom?

Inaccessible	70 %
Hard	20 %
Encouraging	10 %

Seemingly, we feel, through questioned people answers, students are not totally satisfied about their teacher's methodology in the classroom. They argue the methodology used was very boring and there was an absence of the teaching materials. So, we noticed that 70% students think the teacher's methodology inaccessible. They justify through the fact that it is really boring to attend an English course. 20% of them think that it is hard as they present a lack in terms of vocabulary and can't understand. Thus, 10% think that the methodology used is well chosen and encouraging perhaps because they master English language more than the others.

Answering questions	10 %
Filling the gaps	30 %
Role plays and dialogues	5 %
Summarizing and taking notes	40 %
Matching	15 %

Question 15: What types of activities you need to practice?

40% students prefer to practice the activities of summarizing and taking notes since it helps to develop the language skills (reading, listening, speaking, and writing) whereas 5% students prefer role plays and dialogues because it helps them to speak in front of the audience, but only 15% choose matching words. Answering questions is the activity chosen by only 10% students as it is considered as a habit. They justify their opinion by the fact they were practicing such an activity since they were pupils. 30% students preferred gap filing activities and think it is an accessible method.

2.4. Description of the Teachers' Questionnaire

The questionnaire is a series of questions frequently used in quantitative research. It is a valuable method of collection a wide range of information from a large number of individuals. The questionnaire is also one of the most useful tools which are often perceived as partly valid research instrument to elicit information from the informants; the case, here, of the ESP teachers, at different departments where English for Specific Purpose is taught. According to Nunan: "A questionnaire is an instrument for the collection of data, usually in written from consisting of open and/or closed questions and other probes requiring a response from subjects."³⁹

Accordingly, the advantages underlying the use of questionnaire in any research work can be specified and summarized in the following headlines:

- It covers a large number of participants;
- It is standardized and easy to analyze;

³⁹ Nunan, D. (1992): Research Methods in Applied Linguistics. Oxford University Press, p. 231

- It is not time consuming;
- Anonymity has given the informants more confidence which may lead them to give more honest questions.

The reason behind choosing this questionnaire as a data collection in this research was to investigate teachers' point of view on their students.

2.4.1. Analysis of the Teachers' Questionnaire

• Teachers' perceptions about their students' motivation

Question 1: Why do students of scientific and technological fields need English in general?

To pass their English courses	80%
To interact with other people from different cultures	15%
For their future career	5%
For training	0%

Since English today is the dominant language of science and studies, it is necessary to learn it for various purposes. Most of the teachers (80%) agreed that scientific and technological students need English to pass their English courses. Few of them (5%) think the reason is due to their need for their future careers. Thus, 15% of the teachers' informants believe that a great number of their students need English to succeed communication in order to interact with foreign people from different cultures.

Question 2: Do you use other languages during teaching ESP?

Always	75%
Sometimes	15%
Never	10%

In response to this question, the majority of teachers (75%) said that they used other languages when teaching English. These languages are French and sometimes Algerian Arabic because their students find some difficulties in understanding the exercises in English but especially when dealing with scientific terms. Only 15% of the questioned teachers say they sometimes use other languages particularly when students are blocked and couldn't assimilate the used words and their meanings. While 10% teachers affirm they never use other language except English when presenting their courses.

Question 3: Do you think your students are motivated enough towards English in their scientific field?

Yes	20%
No	80%

80% of teachers are not satisfied about their students motivation, they said that their students didn't show any interest towards learning English, they were absent for many sessions. Moreover, they were not interested about the classroom activities and the homework. They realize their wrong comportment once they failed within language module. Whereas 20% of the questioned teachers say they discover a great interest among their students. They justify by the fact they always use simple topics, easy words and accessible vocabulary.

Question 4: Do you have the opportunity to change the English Syllabus?

Yes	95%
No	5%

Almost all ESP teachers in the Mechanical Engineering Department (95%) say that they are independent enough to introduce changes in the syllabus, and in many cases they were obliged to organize their own syllabus where the administration give them some great titles, big lines and ideas about the whole programme. They try to adapt the courses according to their students' level after

organizing a testing level at the beginning of the year. 5% of them feel uninterested in applying changes on the programme.

Question 5: Is the department equipped with the adequate teaching materials (language laboratory, tape recorder, etc.)?

Yes	5%
· No	95%

A big majority of teachers answered that their Departments among their respective faculties are not well equipped with the appropriate teaching materials such as tape recorder, visual aids, language laboratory and textbooks which makes the teaching/learning process of ESP difficult and affects the teachers' methodology in the classroom and especially the students' motivation to learn English. They noticed that they are still using archaic method based on board and chalk, sometimes on printed courses. Only 5% believe in their own initiative to bring proper material in order to succeed an efficient teaching.

Question 6: Do you think that teaching ESP requires special methodology?

Yes	100%
No	0%

When asking about the ESP methodology in the classroom all teachers (100%) answered that teaching requires a special methodology, according to them ESP differs from general English (GE) courses because it deals with the most specific, important, and needed information by students rather than the students who learn English language generally. They added also that teaching ESP requires special motivation and support.

Question 7: Are you motivated to try new methods and techniques in ESP teaching?

Yes	80%
· No	20%

80% of teachers answered that they didn't follow different methods and techniques during teaching ESP; they said that the time allocated to the English sessions was not enough which caused many hindrances and affect their methodology in the classroom, in addition to the absence of the teaching materials that affect the students' motivation and interest. Only 20% believe they can make things different as they always try to choose new processes and adapt new methods according to their students' needs.

Question 8: Do you think the ESP courses you provide are fulfilling students' needs?

Yes	20%
No	80%

80% of teachers said that the students' results in the exams didn't show that the ESP courses were fulfilling their needs whereas the other 20% think that the ESP courses were. The secret is the absence of motivation and interests.

Question 9: Are you satisfied about your students' achievements?

Yes	40%
No	60%

When asking about the students' achievements, 40% teachers said that they were satisfied to some extent with their students' achievements whereas the other (60%) were satisfied about neither their motivation nor their exams results.

Conclusion of the chapter

When talking about student perception of ESP, it is necessary to mention that the major findings from both questionnaires and open-ended questions indicated that the absolute majority of students were not satisfied with their overall English competence. Among students from the various faculties of sciences at the Djillali Liabès University, writing was regarded as the most difficult task and speaking was considered the most important language skill to their future career. As for the existing ESP courses, only one third of the students agreed that current ESP courses were of moderate difficulty.

Few students thought positively of the relationship between ESP courses and their future career than those who held negative viewpoints. In addition, approximately half of the students considered current ESP courses practical and beneficial to their future career. Among the Mechanical Engineering English language skills, reading benefited the most from ESP instruction in the view of the students. In the future, students expected that ESP would be a required subject and more instruction hours should be applied to ESP.

Further, they suggested that the content of ESP courses should focus more on the knowledge of the specialized field than on fostering general English language skills. They also suggested that the administrators should work harder on improving the speaking ability of students. Moreover, they hoped that the student needs should be taken care of prior to those of teacher when planning ESP curriculum. According to the teachers, the most common activities involved in ESP class were reading the prompts for the English test, writing, and listening and speaking, respectively. Though speaking was less often involved in ESP class, it was regarded as the top priority of ESP learning by the majority of students.

However, teacher perception of ESP is seen differently among such a research as a majority of them recognized the differences between EGE and ESP, but they agreed that Basic English language skills were critical to students' ESP learning. An overwhelmingly majority of them thought that students' overall English competence was acceptable, though it was not good enough to meet their academic needs. Among the Mechanical Englineering English language skills,

writing was regarded as the most difficult task for the students, reading was considered as the most important one for students' field of study, and listening and speaking were ranked most important for their future careers.

More teachers' agreed that the difficulty and instruction pace o ESP were moderate in current ESP courses. The content of the present ESP courses was considered practical and beneficial to the students' future careers. More than half of the questioned teachers thought that the ESP courses are interesting. Among Mechanical Engineering English language skills, teachers considered that students' English speaking received the most benefit from ESP instruction, different from perception of students.

In the next chapter, the research findings on needs analysis will be presented.

CHAPTER THREE PEDAGOGICAL IMPLICATION

Chapter Three Pedagogical Implications

Introduction

- 3. Problems and Challenges of ESP
- 3.1. Students' Competence and difficulties toward ESP
- 3.2. The role of the ESP Teacher
- 3.3. Other Factors Affect the Effectiveness toward ESP
- 3.4. Perceptions and Expectations toward ESP
- 3.5. The ESP Practitioner as Teacher
- 3.6. The ESP Teacher as Course Designer and Material Provider
- 3.6.1. The ESP Practitioner as Researcher
- 3.6.2. The ESP Practitioner as Collaborator
- 3.6.3. The ESP Teacher as Evaluator
- 3.7. Stressing the Course Content
- 3.7.1. Developing the Teaching Principles and Methodology
- 3.7.2. Increasing Scientific Students Motivation
- 3.7.3. Teaching Creativity in Scientific Streams
- 3.8. Designing Challenging Tasks
- 3.8.1. Vocabulary Teaching
- 3.8.2. The Presentation Techniques
- 3.8.3. The Practice Techniques
- 3.9. Methods and Activities of Teaching the Four Skills
- 3.9.1. Writing
- 3.9.2. Reading
- 3.10. Training EFL Teachers for ESP Teaching
- 3.10.1. Pre-service Teacher Training
- 3.10.2. In-service Teacher Training
- 3.11. Pedagogical Implications
- 3.12. Limitations of the Study and Suggestions for further Study
- 3.13. The Suggested Syllabus for Third Year of Mechanical Engineering

Conclusion of the chapter

Introduction

This chapter presents the research findings on needs analysis through a two questionnaires survey, among teachers from various faculties within Djillali Liabès University of Sidi Bel Abbes: economy, engineering, computing and medical sciences, also students, exclusively from the Mechanical Engineering Faculty at the same university. The students were observed in their natural settings i.e. the classroom. Furthermore, the responses of both teachers and students were analysed for more clarification. Moreover, the present chapter portrayed the conclusions and discussions of the main findings the students' needs, lacks, and wants to be taken into consideration while designing the English curriculum.

It also reports the conclusions of the data analysis of the present study. The purposes were:

- i. To investigate Engineering department's students' perceptions of their abilities, difficulties, and expectations of ESP;
- ii. To explore teacher's perceptions of student English competence and difficulties, and teacher expectations of ESP;
- iii. To examine the differences in perceptions of ESP between teachers and students.

As mentioned before, we expect to compare the way both of teachers and students view learning and teaching ESP. Teachers suggested that ESP should be a required subject. Further, they also suggested a more suitable teaching environment with a smaller class size and sufficient instruction hours. As to the content of ESP, the teachers thought that more attention should be paid to the specialized content rather than General English. In addition, they perceived that student needs should always take priority over theirs when developing ESP curricula. Therefore, students' perceptions were significantly higher than teacher in need to improve writing ability, the inadequacy of their overall English competence, and in listening, which they regarded as one of the most important skills but a less difficult one in ESP learning. On the other hand, teacher perceptions of the moderate difficulty of current ESP content, the benefits of ESP courses, and their beliefs in the similarity between EGP and ESP were much stronger than those of the students. As for the prospective ESP curriculum, the students had a much stronger sense than the teachers on the need to focus on their specialized field, and on obtaining help from teachers in listening.

3. Problems and Challenges of ESP

ESP is usually designed to fulfill the diverse needs of learners in specific contexts. It is more problematic and complicated than its counterparts, EGP. The ESP courses vary in goals, contents, methodologies, and instructional approaches. There are thus a huge variety of issues and problems in ESP courses. Previous studies have investigated the problems and challenges involved in ESP classes, including students' inadequate English language skills. Most of teachers mentioned that learning difficulties toward ESP are due to instructions hours, large class size and low motivated learners. All of them are regarded as negative factors that affected the effectiveness of ESP.

3.1. Students' Competence and Difficulties toward ESP

ESP is designed to meet specific needs of learners. Learners are expected to perform with adequate language skills in target situations at the end of the ESP courses. However, the performances of ESP learners have been considered unacceptable or poor in many cases. Students' overall English language competence has usually been considered the indicator of the success or failure of English learning. Some teachers imputed the low achievement of ESP to the students' poor English language skills were inadequate to cope with the ESP courses, and made ESP courses inefficient.

By contrast, the students often declare themselves to be suffering from learning difficulties, which makes them perform badly in ESP class. Some researchers also reported that students suffer from learning difficulties relating to the content of ESP (Gatehouse, 2001). The students had difficulties participating in class discussion, asking and responding to questions, and general listening comprehension. Learners have difficulty coping with the ESP courses because of weak English skills. The weakest language skills are also linked to inadequate vocabulary used by teachers.

The content of ESP is also regarded as one of the factors affecting the ESP learning. The difficulty level of the content should be accessible and acceptable to learners, as most learners lack general English skills. Further, the activities in the ESP class should be applied based on the learning goals and should be meaningful in relation to the specific purpose of their target subjects.

3.2. The Role of the ESP Teacher

To consider the role of the ESP teacher, in particular, to consider in what ways the ESP teacher's lot differs from that of the General English teacher. It is stressed a number of times the need to see ESP within the context of language teaching in general and this applies as much to the role of the teacher as to materials and methodology. Nevertheless, there are important practical ways in which the work of the General English teacher and the ESP teacher differ.

Firstly, it will be clear that the ESP teacher's role is one of many parts. Indeed Swales (1985) prefers with some justification to use the term 'ESP practitioner' rather than 'ESP teacher' in order to reflect this scope. It is likely that in addition to the normal functions of a classroom teacher, the ESP teacher will have to deal with needs analysis, syllabus design, materials writing or adaptation and evaluation. The second way in which ESP teaching differs from General English teacher is that the great majority of ESP teachers have not been trained as such. They need, therefore, to orientate themselves to a new environment for which they have generally been ill-prepared.

3.3. Other Factors Affect the Effectiveness toward ESP

Apart from the issues discussed above, several factors also potentially affect ESP instruction, such as large class size, mixed level, insufficient teaching time and students learning attitudes. Large class size is common to many parts in the world. Too many students in a classroom make it hard to give enough practice to individual students. Therefore, teachers in large classes tend to require less participation than in smaller classes.

In addition, many of the ESP classes are mixed ability either in language level or in subject speciality. The differences in student abilities will make it difficult for teachers to set appropriate standards and to adjust materials. As a result, the effectiveness of ESP teaching will be diminished.

Further, ESP courses in many universities are considered electives. The total quantity of time allocated for ESP instruction is always insufficient, which makes ESP class instruction inadequate. Uninterested students with poor participation are another negative factor making ESP ineffective.

3.4. Perception and Expectations toward ESP

ESP is designed based on the learners' needs and wishes. Through need analysis, learners perceive their needs and express their expectations of ESP class, while ESP practitioners perceive learner needs and expectations, and develop authentic materials to fulfill the specific need of learners in particular contexts. Students' perceptions of the requirements and needs of their target situations strongly influence their receptiveness to ESP learning.

Student needs are perceived by teachers based on their expertise in either their knowledge of English and subject area, or their working experience in the real world.

However, there are always gaps produced between teacher and student perceptions, or between the instructions and the requirements as they actually happen in the real classroom context. Therefore, courses as they are finally devised may be different from the analyses and may also be regarded as inauthentic.

Further, the similarities and the differences in light of the perceptions between instructors and ESL students were observed. Their findings show that there was considerable variation in student responses regarding the difficulties they encountered and the importance of specific language tasks and skills across students' major, class levels, status, mother tongues, and gender. In addition, student response was dramatically different from those of instructors in ranking specific language skills.

3.5. The ESP Practitioner as Teacher

ESP is a practical discipline with the most important objective of helping students to learn. However, the teacher is not the primary knower of the carrier content of the material. The students, especially where the course is specifically oriented towards the subject content or work the students are engaged in, may know more about the content than the teacher. The teacher has the opportunity to draw on students' knowledge of the content in order to generate communication in the classroom. When the teaching is a specific course on, for example, how to write a business report, it is important that the teacher adopts the position of the consultant who has the knowledge of communication practices but needs to "negotiate" with the students on how best to explore these practices to meet the objectives they have. The relationship is much more of a partnership.

3.6. The ESP Practitioner as Course Designer and Material Provider

Since it is rarely possible to use a particular textbook without the need for supplementary material – sometimes no really suitable published material exists for identified needs – ESP practitioners often have to provide the material for the course. This involves selection of published material, adapting material if it is not possible, or writing it. ESP teachers also need to assess the effectiveness of the teaching material used whether it is published or self-published. However, since the teachers are encouraged by their employees to write new materials there is a danger of constant re-invention of the wheel; advantages of published materials are ignored even when they are suitable for a given situation.

3.6.1. The ESP practitioner as a Researcher

Research has been particularly strong in the area of English for academic purposes (EAP). Regarding the research into English for business purposes (EBP), there is a growing interest in investigating the genres, the language and the skills involved in business communication. ESP practitioners need, therefore, to be in touch with research in different areas of ESP like EBP, EST, and ESS to include and use the findings of research in his own situation to better cope with the learners' needs. According to Dudley-Evans et al:

> "An ESP practitioner has to go beyond the first stage of needs Analysis -Target-Situation Analysis (TSA) which identifies key target events, skills and texts-to observe as far as to observe as far as possible the situation in which students use the identified skills, and analyse samples of the identified texts."⁴⁰

3.6.2. The ESP Practitioner as a Collaborator

It is believed that subject-specific work is often best approached through collaboration with subject specialist. This may involve cooperation in which ESP teacher finds out about the subject syllabus in an academic context or the tasks that students have to carry out in a work or technical situation. Or it may involve specific collaboration so that there is some integration between specialist studies or activities and the language. It might involve the language teacher specifically preparing students for the language of subject lectures or business presentations. Another possibility is that a specialist checks or comments on the content of the teaching materials that the ESP teacher has prepared.

3.6.3. The ESP Practitioner as an Evaluator

The ESP practitioner is often involved in various types of evaluationtesting of students, evaluation of courses and teaching materials. Tests are conducted to assess:

a) Whether students have the necessary language and skills to undertake a particular academic course or career which is important in countries such as UK, USA, Australia where large numbers of international students do postgraduate course or research and need internationally required tests, e.g.

⁴⁰ Dudley-Evans, T., and St John, M. J., (1998): Developments in ESP. A multidisciplinary Approach. Cambridge University Press. p.15

International English Language Test Service (IELTS), Test of English as a Foreign Language (TOEFL).

b) The level of their achievement- how much students have gained from a course. Evaluation of course design and teaching materials must be done while the course is the being taught, at the end of the course and after the course has finished, in order to assess whether the students have been able to make use of what they learned and to find out what they were not prepared for. Evaluation through discussion and on-going needs analysis can be used to adapt the syllabus.

3.7. Stressing the Course Content

One important feature of ESP courses is the close attention that is paid to students' needs and what they plan to study. The first stage in an ESP course design is to find exactly why the students are learning English and therefore, what language skills they will need. Identifying and selecting the content for an ESP course is not a free process while taking into account information about the students' needs, and goals the ESP teacher is in the position to determine which aspects will be included, emphasized, integrated, and used as a core of the course to address ESP students' needs and expectations.

3.7.1. Developing the Teaching Principles and Methodology

Teaching principles and methodology includes the core competences and skills of the teacher, the results of the needs analysis curried out in the professional community, and the fundamental principles of teaching and learning. Thus, methodology is also of crucial importance. Since ESP courses aim to develop linguistic skills relating to particular spheres of activity, not only the nature of the linguistic items introduced, but the ways in which they are introduced and how they are practiced, are highly significant.

The most important role that the ESP teacher has to play in this context is to encourage an open atmosphere in the classroom to make participation possible and negotiations central, it is also essential for him/her to explore alternatives with the students about their learning program.

3.7.2. Increasing Scientific Students' Motivation

Motivation is an essential factor that plays a major role in achieving many fundamental goals in the students' academic and professional settings. It is the pushing wheel of the learning vehicle that students ride to reach their educational objectives. Motivation is defined as the orientation a student has with respect to the purpose of learning a second language (Crooks and Schmidt, 1991). It is also related to the drive to do something. It is the force that pushes us to do things. Moreover, motivation is defined by Lokie (2011) as the desire to engage in an activity out of curiosity, interest or enjoyment.

3.7.3. Teaching Creativity in Scientific Streams

The profession of engineering demands that engineers recognize, validate, and solver problems on their own or through team work, more importantly they need to demonstrate original and creative mind to meet the advancing goal of the engineering profession to design new products or systems and improve existing one for the benefit of humankind. Creativity is the ability to create meaningful new ideas, forms, methods, interpretations etc. This definition stresses the creation of something innovative and useful from pre-existing knowledge experience in which creative engineers have to be able to explore information and generate novel solutions to specific engineering problems or to the production of a unique product. The crucial role that the ESP teachers need to play is engaging, activating, and encouraging creativity in the classroom through using different strategies

3.8. Designing Challenging Tasks

One of the best ways to increase students' motivation in the classroom is to design different tasks that stimulate learning, raise students' interest, and build positive attitudes toward leaning English. These tasks are as follow:

a) Reading Club

Students are devised to form reading club in their classrooms. Reading club members are asked to read technical reports, newspapers articles regularly everyday they are asked to discuss the newspapers news half an hour either in break or leisure periods. Each member has to read a new article that has to be discussed in their club. If anything is very interesting either articles or books concerning their field of study, they can take ten minutes time to present in the classroom. These activities may equip students with the English language proficiency, develop the interaction between students inside and outside the classroom and keep them in touch with the latest news.

b) E-mailing

Although most engineering students use e-mail in their daily lives, few of them using it in English. E-mailing is an important activity within the business world today; individuals in different professions need to use e-mail in order to send electronic messages and documents. For this reason, it is important to include the practice of e-mailing in the ESP classes. For example, the teacher suggests a funny way to write more e-mails in one session; student may send short "e-mails" written on scraps of papers to each other to make new arrangement, e.g. making an appointment, or having meeting. The student who has made new arrangement in fifteen minutes is the winner of the game.

c) Definition of Terms

In this activity students are asked to deal with different technical terms concerning their area of specification. For example, one student is asked to list number of characteristics of a given object to his/her classmates but without saying its name, and then, the students' task is to guess the name of the object from its characteristics as the following: the student said: "the largest satellite in the scholar system in which men had mad manned landing" from this definition students guess that he/she is describing the "moon".

d) Teaching Diverse Students

The competent ESP teacher has to understand the diverse characteristics and abilities of each student and how individuals develop and learn within the context of their social, linguistics, and academic experiences. She/he needs to be aware about how each student constructs knowledge, acquire skills, and develop effective and efficient critical thinking and problem-solving capabilities, in order to identify their needs. In this regard the ESP teacher has to

- stimulate prior knowledge and links new ideas to already familiar ideas and experiences.
- plan and design instruction based on content area knowledge, diverse student characteristics, student performance data, curriculum goals, and the community context. She/he needs to plan for ongoing student growth and achievement, and also to understand how to adjust plans on outcomes data, as well as students' needs, goals, and responses through:
- identify prerequisite skills, concepts, and vocabulary needed for the learning activities.
- create short-term and long-term plans to achieve the expectations for students learning.
- analyze and use student's information to design instruction that meets the diverse needs of students and leads to ongoing growth and achievement.
- incorporate experiences into instructional practices that relate to student's current (learning) needs experiences and to future (target) needs experiences.
- work with the subject specialist to adapt and modify instruction to meet individual students' needs, develop or select relevant instructional content, materials, recourses, and strategies for differentiating instruction.
- manage Classroom Climate and Operation:

One of the most important roles for the ESP teacher is to structure a safe and healthy learning environment that facilitates self-efficacy, positive interaction, active management, and self-motivation. They have to take of his/her skills for communication and mediation in order to create a positive learning environment where students have the opportunity to use language in interaction such as:

- Building students' self-confidence to communicate;
- Using strategies to create a smoothly functioning learning community in which students assume responsibility for them, participate in decisionmaking, work collaboratively and independently;
- Using a variety of effective behavioural management techniques appropriate to the needs of all students that include positive behaviour interventions and supports
- ◆ Using appropriate technology, and engaging purposeful learning activities.
- Managing to change the classroom routine and the procedure without less or significant instructional time.

3.8.1. Vocabulary Teaching

Teaching vocabulary especially in ESP course is becoming a challenge task for the ESP teachers. Vocabulary is inseparable part of any teaching syllabus, and needs to be taught in a well-planned and regular basis. A good mastery of vocabulary is essential for ESL/EFL students especially for those who learn for specific purposes. Let's name two important techniques of teaching vocabulary in ESP.

3.8.2. The Presentation Techniques

The aim of the presentation techniques is to establish the basis meaning and the correct form of the word in the student's memory. It is important to decide which form is suitable for a particular situation. It is often possible to use visual techniques such as objects and pictures because actions are better than to be presented by gestures or by mime. There are also verbal techniques involving the use of the synonyms (words with similar meaning), antonyms (words with opposites meaning), and scales. Moreover, with the intermediate students it is beneficial to use concise definition, explanation, example of type, and context, it is possible to use translation. At intermediate levels it is helpful to use discovery techniques. They employ the student's previous knowledge and activate the work with words. In order not to discourage the students; the teacher's presentation of ESP vocabulary has to be interesting, not complicated, motivating, memorable, and amusing.

3.8.3. The Practice Techniques

The aim of this technique is to store the new word in the long-term memory and to turn passive vocabulary into active vocabulary through teaching vocabulary learning strategies. In order to develop an ability to learn new vocabulary for both general and technical vocabulary in learning ESP, the students need to be aware about the importance of language learning strategies and be trained to use them appropriately. Vocabulary learning strategies are subcategory of language learning strategies.

Most effective strategies in ESP vocabulary teaching and learning are; diagrams, mind map, word trees, grouping words by activity or process, by categories (building materials: stone, sand, wood), by word families (to build, builder, building), by topic (at a building sit), synonyms, or antonyms. These strategies can be practised through different types of activities: filling gaps sentences, matching words to other words, replacing words with their synonyms or antonyms, memory games, using prefixes and affixes to build new words form given words.

3.9. Methods and Activities of Teaching the Four Skills in ESP

The main aim of teaching ESP is to provide students with extensive systematic and well integrated practice in the productive (writing and speaking) and receptive skills (reading and listening) necessary for successful communication in both oral and written forms. Developing the language skills among ESP students is a matter of how to activate the students optimally in their work with adequate material, exercises and assignments in the classroom.

3.9.1. Writing

Writing is related to critical thinking and good writing skills improve academic performance. ESP students as well ESP courses have some unique needs and issues when it comes to writing, and require better approaches to improve students' writing skills. The advantages within writing activities are that they give the students time to correct it. Writing is also an activity that supports the development of oral skills. In this regard writing exercises need to be given frequently and relevant to the subject area (e.g. brief summarized of research article, newspapers article, technical reports, meetings, and product presentation).

To teach writing skills, the teacher has to base his/her courses on students' needs. They need to be able to:

- Summarize materials which they have read.
- ✤ Take notes on lectures or readings.
- ✤ Compose coherent paragraphs on familiar topics.
- ✤ Write short letters in standard format.
- ✤ Fill in application forms.
- ♦ Write captions to describe diagrams, tables, and graphs.
- ✤ Write a technical report, an assignment or project.

On the light of these needs, some activities are suggested to teach writing such as:

- Writing exercises which include dictation and completion of close or fillin-the-blank.
- Sentence-combining exercises require students to combine short sentences into longer ones. This gives them practice with combination and subordination.
- Reordering jumbled sentences helps students build understanding of paragraph structure.
- Note-taking exercises give students practice recording, guide them in developing good note-taking style, and teach them that when they take notes, they must include: content words, important diagrams, correct

figures (such as percentages, quantities), transitional expressions, appropriate abbreviations and symbols.

- Summarizing exercises: can be combined with reading or study skills assignments. Such exercises can also be used to develop skills in paraphrasing, and to caution students against plagiarism.
- Writing description: can include descriptions of substances, places, objects, how to write faxes, e-mails, reports, presentation notes, or interpretations of illustrations, graphs, and charts.

3.9.2. Reading

Reading has always been regarded as an important skill in teaching English as a second foreign language. The reading skill is important because it stimulates thinking, compels students to analyze and criticize. In other words, reading help effective communication. Reading is the primary channel through which students will progress in English; two types of skills are needed in reading: simple identification skills (decoding) and high level cognitive skills such as analyzing, synthesizing, and predicting. The teacher reading program has to work on two levels to develop both types of reading tasks: intensive and extensive reading. Intensive reading is a close analysis of a short passage and can be used to develop vocabulary, grammar, and comprehension. Extensive reading on the other hand is a faster reading of longer passages to develop understanding of writer's organizational strategies, to improve speed reading, and to focus on the main ideas.

Moreover, fluent reading depends on primarily knowledge of vocabulary and subject matter, and also on knowledge on grammatical structure. Vocabulary development, then, is an important aspect of reading development. The students will need to develop a good vocabulary in English in order to be good readers. Teaching reading in ESP requires the teacher to different methods and activities in order to develop the ESP students' reading skills and help them expand their business knowledge.

3.10. Training EFL Teachers for ESP Teaching

Teaching ESP requires a special approach to the training of teachers who are supposed to teach English through content. First of all, EFL teachers need to be provided with the necessary knowledge and tools to deal with students' special field of study, because they ate not specialists in the field, but in teaching English, their subject is English for the profession and not the profession in English. They are expected to help students, who know their subject better than them, develop the essential skills in understanding, using, and presenting authentic information in their profession. According to Valdes:

"A better command of the target language by the teacher is a necessary but not a sufficient condition. Teacher training, for them, includes an important element of methodology classroom observation, materials trial and development, and so on".⁴¹

Training as a process underlines two phases, that is to say, pre-service and inservice-training courses.

3.10.1. Pre-service Teacher Training

In order to function adequately as a teacher, an ESP practitioner should, first of all, undergo a pre-service general training phase by which he is required to attend lectures, including a variety of sciences which revolve around the teaching of English as foreign language (TEFL) as it is the case in Algeria. In this phase, a prospective ESP teacher should be equipped with a sound training which includes: phonetics, linguistics, psychology, pedagogy, methodology and so forth. Moreover, he/ she has to undertake a "specialized training" where areas such as needs analysis, syllabus design, material production, specialized language "terminology", must be carefully addressed. At last but not least, practice is almost needed.

⁴¹ Valdes, J. M., (1986): Culture Bound: Riding the Cultural Gap in Language Teaching. Cambridge University Press. p. 103

3.10.2. In-service Teacher Training

As it has been discussed above, pre-service training is of paramount importance for prospective teachers. On the other hand, for those who are already involved in ESP teaching situations, in-service training teacher training will constitute a great aid for them. This can be achieved through attending workshops and seminars by which they seek to cater for a better professional development. In the same line of thought Savas writes: *"Language teaching and prospective teachers can attend professional development workshops to let themselves acquire a second field of expertise, such as medicine, engineering or law."*⁴²

3.11. Pedagogical Implications

Knowing the benefits and shortcomings of ESP instruction based on the findings, the present study would like to provide some suggestions for future ESP pedagogy. First, both administrators and ESP practitioners should put more effort into improving the foundation of Basic English skills among their students. They should reconsider the learning objective based on the learner ability and provide ESP courses specific to learners' proficiency levels. Second, learning material should be relevant to learners' specific needs, and the teaching pace should be flexible. Thus, the ESP teachers should work hard to provide authentic materials to the learners.

In addition, a placement test should be administered to groups of students by language level before applying for ESP courses. When the learners work with others of similar language level, capable learners can advance at their own rate; while less capable learners can work at a slower pace without too much pressure. The class size should be moderate to allow the teachers to provide sufficient practice in English language skills. The length of time spent receiving ESP instruction should be expanded, as it impacts the effectiveness of ESP instructions.

⁴² Savas, B., (2009) Role of functional academic literary in ESP teaching: ESP teacher training in Turkey for sustainable development. *Journal of International Social Research*, p. 403

Finally, the ESP teachers, as both the teachers and students participating in the study agreed, should be knowledgeable with a good command of the English language and to some extent familiar with specialized knowledge. If this demand cannot be achieved in short term, the English teachers and subject teachers working together will solve the pressing need of the shortage of eligible ESP teachers.

3.12. Limitations of the Study and Suggestions for Further Study

The present study is limited as it examined the ESP courses only within a technology university setting. In addition, the subjects were limited to a small number of students (46) and faculty (4). The situations probed in a single learning setting might be too narrow to robustly describe ESP instruction at all technology universities in Algeria. Therefore, the results cannot be generalized to the majority of populations in other cultures or educational contexts. Further, the items of the questionnaires and the class observation process were restricted to the purposes of the present study only. They did not cover all aspects of ESP situations. Thus, many other aspects of ESP issues remain for further investigations.

Suggestions for further research include: (1) involving participants of different contexts; (2) examining the factors shaping the effectiveness of ESP and proposing possible solutions to problems; (3) investigating the impact of collaborative teaching in different learning contexts; and (4) clarifying whether students at technological and vocational universities in Algeria are ready for ESP courses.

ESP is problematic and complex. It is hoped that more researchers will contribute their efforts to understanding ESP and proposing suggestions for the academics, ESP administrators and the Ministry of High Education and Scientific Research officials who make policies for English learning and education.

3.13. The Suggested Syllabus for Third Year of Mechanical Engineering

The syllabus is the specification of content for a single course or subject. It is a working document that can be used flexibly to maximize the aims and processes of learning. The syllabus is also defined as a statement of the plan for any part of the curriculum.

Titles of Lectures	Grammar	Function	Vocabulary	Language Skills
What is Mechanical Engineering?	-Adverbial Clause with "Because" - Linking Verbs	- Expressing Opinions - Answering inquiries	Word Structure - Compounding - Affixation - Nominalization	Reading Comprehension
Basic Arithmetic Operations	-Indirect Imperative - Comparison and Contrast	Understanding and Verbalizing common symbols	Definition and analysis	Formation of simple sentences (Writing)
Numbers	-Should in advice and obligation Adverb of manners	Understanding and verbalizing numbers.	Logical connectors used to link clauses and sentences (therefore, as result)	Formation of simple sentences (oral and written)
Dimensions	-Adverb clauses of time -be supposed to	Describing an object in terms of contrast and comparison in dimension.	Classification (consist of, is divided into, is composed of)	Discussions/ Formation of simple sentences(oral and written)
Properties of Materials	-Present Perfect (with since and for)	Using tables, diagrams and graphs to summarize data.	Visual / verbal relationship(the linking of text and diagram, graph, etc)	Translation(to check the students' comprehension)
The Operations of an Engine	-Indefinite pronouns adjective clauses	Summarizing the result of a group project, a technical report, or a scientific text)	Chronological sequence (at first, then, next, ultimately)	Letters writing
Hand Tools	-if clauses (present or future probability)	Reporting information from other sources	Description using such as, for example, etc)	Writing Essay
Structure of Matter	-modals (can- cannot-could)	Giving instructions or directions	Generalization (in other word, in conclusion)	Writing letters
Car Parts	-indirect speech superlatives - irregular verbs	Describing processes and procedures	Making deduction	Listen and fill in the gaps

Table: The Suggested English Syllabus for Third Year Students of Mechanical Engineering.

Conclusion of the chapter

Based on the review of selected literature and major findings revealed from the present study, we have attempted to sort out a set of suggestions and recommendations that may help to improve the ESP teaching and learning conditions in order to identify and remedy the students' lacks and added some proposals to fulfil the students' learning needs and prepare them for the requirements of the target situation. As a result, this research is believed to represent at least a small step forward in a largely unexplored area in the teaching and learning process of ESP. It is hoped that this study will lead to increase attention to this area, and provide a clear map to chart future inquiry.

General English language skills have long been regarded as the foundation of English education. Thus, students' overall English language competence has usually been regarded as the indicator of the success or failure of English learning in previous studies. According to the major findings of present study, both the teachers and the students perceived the students' overall English competence to be inadequate, which was considered a critical factor in their poor outcomes in ESP learning. Hence, the students presented a strong desire to improve their English language skills.

In addition to students' English competence, most of the students noted that ESP was important and beneficial for not just their academic studies but their future career. Among the four language skills, the teachers considered reading as the most important for students' major studies, and most involved during ESP classes. Speaking and listening were taken as the top two language skills which would benefit the students' professional careers. Speaking was stressed much often as the most important skill and the top priority for students' English learning by the teachers. The students, on the other hand, claimed that speaking and listening were the most important skills needed to meet both academic and professional demands.

During the ESP learning process, as the students reported, they often suffered from learning difficulties caused by the content of ESP, the instructional pace of ESP, and the tasks involved in the ESP courses.

GENERAL

CONCLUSION

General Conclusion

ESP is more problematic and complicated than its counterpart (EGP) in English education, namely when it is noticed a total absence of previously established programmes. The ministry of high education and scientific research is concerned by a systematic study and projects preparation rather than any time else. In the present study, both teachers and the students agreed that ESP courses should have positive effects on students' professional careers and fields to study, though there were potential problems with ESP as well. The problems that both teachers and students confronted in the present study were extracted from the questionnaires and the class observation processes. Teachers encountered several negative situations and attitudes, such as insufficient student language skills, insufficient instruction hours, and large class sizes.

In the present study, both teachers and the students perceived the differences as well as the positive relationship between EGP and ESP. Though they understood that Basic English language ability is the key factor in the success of ESP learning, they felt that some teachers made more effort on fostering their general English skills rather than in the specific subject area. The students strongly asserted their needs to focus on content relevant to their specialized area, not on knowledge of general English skills. In the future, they suggested that their needs be fully understood before the course design. They wanted ESP courses to be domain-oriented, teaching materials and instruction to be more flexible, and above all, they wanted qualified ESP teachers with practical experience.

The teachers, on the other hand, wanted ESP courses to be requirements in the university. They suggested that a placement test should be conducted before the enrollment of ESP class to avoid large differences in student proficiency levels coming up in the same class.

The aim of this study was to shed light on some of the major aspects of ESP discussed in the literature to reach a better understanding of this kind of English teaching. The purpose of this analysis was twofold; first, to sort out the major

students' needs, lacks, expectations, and attitudes towards learning English in their fields of study. Second, to examine the key roles of ESP teachers in the classroom and focuses on the way in which they can sustain and retain the interest of the students in language and necessitate the management of the needs analysis, materials development, and activities to enable students to learn English effectively and making the language more meaningful to them and increasing the number of opportunities for the language practice in the classroom.

Moreover, the most significant conclusions to be drawn from this study were, first, the students' level of competence was somehow poor i.e. they were passive students, not autonomous, and not motivated to learn English in their field of study. Next, the ESP module did not get equal status with the other modules of the speciality. Then, the lack of ESP teachers' role which was indicated by their low motivation to try new methods, activities, materials and assessment to improve the students' level of competence in English. Furthermore, the data revealed from this needs analysis can be used as an evidence to support the hypotheses formulated by the researcher before, in which it is necessary for the ESP teachers to use new methods, techniques, and materials in order to conduct the best learning activities and assess the students' progress to create a productive and satisfactory ESP learning environment. On the light of these results, the researcher provides different suggestions and recommendations to tackle the problems occurs in the process of teaching and learning ESP and to bridge the gap between the student present level in English and the required English language proficiency in the target situation. Since learning needs are those needs that must be met to achieve the requirement of the target situation, it is important for the ESP teacher to determine those needs as a starting point in any ESP activity.

In addition, the researcher suggests some guiding principles for ESP course design. Then, he proposes some techniques of teaching vocabulary and language skills. Next, the researcher suggests some modifications for the administrative system to make the ESP curriculum more effective. And also proposes an English syllabus for the Mechanical Engineering field. To conclude, some interesting questions remain unanswered; why ESP in Algeria is not treated as an important field although it contributes to prepare well-trained individuals with different qualifications? Then, if the reason behind ESP students' failure in their English courses is due to the absence of the teachers' role in the classroom, what makes the ESP teachers lose their interest and motivation to develop new methods, materials, and activities in teaching English for Specific Purposes? Is it due to the absence of the absence of the support? All these questions need to be answered by further research.

A big part was also reserved to ESP teachers who are called to use specific methods and notions in order to succeed their courses. According to (Dudley-Evans & St. John, 1998), they are expected to play five roles: teacher, course designer and material provider, collaborator, researcher, and evaluator. To carry out about the above roles, ESP teachers should be trained in language teaching competence and subject specific knowledge. However, there is no certain answer to how well an ESP teacher should be. In addition, there are not ready-made answers to the problems that ESP teachers may expect to encounter. The ESP teacher should always stay open-minded and flexible. The goal of ESP learner is to learn English for the purpose of carrying out certain roles in a specific context, such as studying in an Engineering faculty and performing special tasks.

On the other hand, students also confronted problems other than insufficient English language skills, such as the low achievement in ESP, the incompatible teaching materials and methodologies, the ineffective instruction hours, large class size, and particularly, the absence of adequate ESP programme from scientific streams in general. They also questioned the capability of ESP instructors.

The capability of the ESP instructors was considered to negatively impact the effectiveness toward ESP. The findings of this study showed that some students questioned the capability of their ESP teacher as well as the materials they offered.

Bibliography

1. Books

- ✓ Allen and Widdowson, H.G. (1974): Teaching the Communicative use in English. *Review of Applied Linguistics* XII 1, 1019
- ✓ Basturkmen, H. (2006): *Ideas and Opinions in English for Specific Purposes*. Mahwahm New Jersey: Lawrence Erlbaum Associates.
- ✓ Brown, J.D (1995): *The Elements of Curriculum*. Boston: Heinle and Heinle.
- ✓ Brown, J.D (2001): Using Surveys in Language Programs. Cambridge: Cambridge University Press.
- ✓ Chambers, F. (1980): A re-evaluation of Needs Analysis , *ESP Journal* Vol.1.1, pp. 18
- ✓ Crystal, D. (2005). English as a Global Language. Cambridge/ New York: Cambridge University Press.
- ✓ Dornyei (2007): Research Methods in Applied Linguistics. Oxford University Press
- ✓ Douglas, d. (2000): Assessing Language for Specific Purposes. Cambridge University Press.
- ✓ Dudley-Evans, T. and St John. M.J. (1998): Developments in ESP: A Multi-Disciplinary Approach. Cambridge: Cambridge University Press.
- ✓ Ewer, J.R., and Latorre, G. M. (1969): Preparing an English course for Students of Science. Language Teaching. Cambridge: Cambridge University Press.
- ✓ Flowerdew, J and Peacock, M (2001): Research Perspectives on English for Academic Purposes. Cambridge: Cambridge University Press.
- ✓ Gardner, K. C., and Lambert, W.E. (1972): Attitudes and Motivation in Second Language Learning. Rowley, Mass; Newbury House Publishers.
- ✓ Gatehouse, K. (2001). Key issues in English for Specific Purposes (ESP). Curriculum development. *TESL Journal*, 7. Retrieved May 2, 2009
- ✓ Graves, K. (1992): Teachers as Course Developers. Cambridge. Cambridge University Press

- ✓ Hutchinson, T. and Waters, A. (1987): English for Specific Purposes. A Learning-Centred Approach. Cambridge. Cambridge University Press.
- ✓ Johns, A.M. (1991): English for English Purposes (ESP). Its History and contribution In tea and future. In Teaching English as a Second or Foreign Language by Marianne Celce-Murcia, (Ed) Boston, pp. 67 680. Heinle and Heinle and Heinle Publishers.
- ✓ Kennedy, C, H and Bolitho, R. (1984): English for Specific Purposes. Hong Kong Mac Millan Publishers Limited.
- ✓ Mackay, R., and Mountford, A. Eds. (1978). English for Specific Purposes. A case study approach. London: Longman.
- ✓ Mason, J. (1996): *Qualitative Researching*. London Sage.
- ✓ Nation, P. (2000): Designing and improving a language course. *Forum*, 38, 2.
- ✓ Nunan, D. (1992): Research Methods in Applied Linguistics. Oxford University Press
- ✓ Robinson, P. (1991): ESP Today. A Practitioner's Guide. New York: Prentice Hall.
- ✓ Spolsky, B (1998): Sociolinguistics. Oxford: Oxford University Press.
- ✓ Tuncay, H. (2003): ELT Dictionary A companion to the EFL, ELL, ESL, ESOL, FLL, TEFL, TESL, TESOL and ELT abbreviations, Acronyms, Terms and Expressions *Literature Publications* 102, Istanbul. ISBN 975-04-0222-7
- ✓ Valdes, J, M. (1996): Culture Bound: Riding the Cultural Gap in Language Teaching. Cambridge: Cambridge University Press.

2. Articles

- Hermansyah, Harris S. (2005). Using Register Analysis to Design an Advertisement, Journal of Language and Learning Vol. 9 N 1 June 2005.32-40.
- Savas, B. (2009). "Role of Functional Academic Literary in ESP teaching: ESP teacher training in Turkey for sustainable development". *Journal of international social research*.
- Zughoul, M, R. (2003). Globalization and EFL/ ESL Pedagogy in the Arab World. *Journal of Language and Learning* Vol. 1 N 2 106-138

Annexes

Annex One

Students' Questionnaire

Question1: According to you, English language is considered as:

a.	Foreign language	
b.	Second language	
c.	Language of communication	

Question 2: Do you have any motivation toward English language?

--

Question 3: The problem of English language is well spread among students at

University. What are the main reasons?

Question 4: How do you find English in your field?

a. Purposeful	
b. Difficult	
c. Boring and useless	

Question 5: How do you evaluate your perception aptitudes during an English course?

-Question 6: Do you think that the weekly English time teaching is well enough? Question 7: Do you have any difficulties in understanding scientific discourse in English?

Yes	
No	

Question 8: Do you think that ESP will be useful for you?

Yes	
No	

Question 9: How important for you to read, listen, speak, and write in English?

a. Purposeful	
b. Difficult	
c. Boring and useless	

Question 10: How well do you think you need English to be successful in your field?

A. Very well	
B. Well	
C. Not very well	

Question 11: Through which of the following materials do you prefer to learn?

a. Videos	
b. Text books	
c. Dialogues	
d. Articles	

Question 12: What types of tests do you prefer?

a. Oral tests	
b. Written tests	

Question 13: Are you motivated to learn English?

a. Ye	s	
b. No)	

Question 14: How do you find your teacher methodology in the classroom?

a. Inaccessible	
b. Hard	
c. Encouraging	

Question 15: what types of activities you need to practice?

a. Answering questions	
b. Filling the gaps	
c. Role plays and dialogues	
d. Summarizing and taking notes	
e. Matching	

"Thank you!"

Annex Two

Teachers' questionnaire

Question 1: Why do students of engineering need English in general?

a. To pass their English courses	
b. To interact with other people from different cultures	
c. For their future career	
d. For training	

Question 2: Do you use other languages during teaching ESP?

a	Always	
b	Sometimes	
c	Never	

Question 3: Do you think your students are motivated enough towards English in their scientific field?

a	Yes	
b	No	

4. Do you have the opportunity to change the English Syllabus?

a	Yes	
b	No	

Question 5: Is the department equipped with the adequate teaching materials (language laboratory, tape recorder, etc.)?

a	Yes	
b	No	

Question 6: Do you think that teaching ESP requires special methodology?

a	Yes	
b	No	

Question 7: Are you motivated to try new methods and techniques in ESP teaching?

a	Yes	
b	No	

Question 8: Do you think the ESP courses you provide are fulfilling students' needs?

a	Yes	
b	No	

Question 9: Are you satisfied about your students' achievements?

a	Yes	
b	No	

"Thank you!"