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# **Difficulties Facing IUG Engineering Students in Studying the English for Engineering Course.**

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” قَالُوا سُبْحَانَكَ اللَّهُ عَمَّا كُنَّا إِذَا مَا جَلَسْنَا  
إِنَّا أَنْتَ الْعَلِيمُ الْحَكِيمُ ”

سورة البقرة آية (32)

## **Dedication**

*To those whose kindness, patience and support are  
the candles that enlighten my way towards success.*

*To my father & mother*

*To my brothers*

*To my sisters*

*To my beloved wife*

*To my baby*

*I dedicate this work*

## **ACKNOWLEDGMENTS**

All praise to Allah, the one to whom all dignity, honor, and glory are due, the Unique with perfect attributes, who begets not, nor is He begotten. He has no equal but He is the Almighty Omnipotent. Peace and blessing of Allah be upon all the prophets and messengers, especially on Mohammed, the last of the prophets and on all who follow him in righteousness until the Day of Judgment. All praise to Allah for enabling me to write this research.

As Prophet Mohammed, peace be upon him, said, "He who is thankless to people, is thankless to God." My appreciation and respect first must go to my dear father and mother whose prayers helped and supported me to carry out this work.

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## **ABSTRACT**

### **Difficulties Facing IUG Engineering Students in Studying the English for Engineering Course.**

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This study aimed at revealing the difficulties that encounter engineering students in studying the English course for engineering at the Islamic university of Gaza in the university year 2010-2011.

To answer the questions of the study, the researcher adopted the descriptive analytical approach. The sample of the study consisted of (210) students represents (48.7 %) of the whole population, (147) male students and (63) female students who were randomly chosen.

An open-ended question was used as a helping tool of the study in order to build a diagnostic test which is considered as the main tool of the study.

The data was collected and computed by using frequencies and percentages. T.test, One Way ANOVA, Scheffe post test, (SPSS) Statistical

Package for social Science Spearman correlation, Alpha Cronbach Technique and spilt –half Technique were used to confirm the test validity and reliability.

The study revealed that there are statistically significant differences in the difficulties facing the engineering students in studying the English course for engineering at the Islamic university of Gaza due to the student gender and accumulative average.

In the light of those findings, the study suggested some recommendations that are hoped to help syllabus designers, supervisors and English language teachers teach English for engineering and English for specific purposes in general.

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# **Chapter I**

## **Introduction**

# I

## Introduction

### 1.1. Study statement and background:

It is believed, nowadays, that English language plays the role of a global lingua franca or world language (Crystal, 2003), so mastery of English is the road to knowledge, education, technology and scientific advancement, business and international trade .

Since there are several fields of work, education, research, science ,etc, it has become a must to develop such type of language to suit each field; so ESP emerged which refers to teaching or studying English for a particular career (like law and medicine) or for business in general. (International Teacher Training Organization, 2005). So, one can see English language as a medium of teaching and learning instruction in many universities around the world. Besides, university students' academic performance is correlated with their performance in English.

In Palestine, many universities adopt English as a language of instructions in their various faculties and departments, but because English in Palestine is considered as a foreign language .

It is needed to equip the students with some pre-academic programs in English language to qualify them to be university students. These programs are EFL programs, which means the student should learn English for general purposes, but later the stakeholders noticed that these pre-academic programs should also give the student the

language skills s/he needs in her/his academic major. So some universities designed their English for specific purposes curricula or adopted some from other international universities.

In the Islamic University of Gaza, when one looks at the faculty guide booklet in some faculties, the faculty of engineering for instance, one can see some ESP programs intended to help the students to gain knowledge and use it in the work field. This program side by side with EFL programs can help the students to gain knowledge from the college lecturers or from several international books, but although both types of programs complement each other, they have some differences. Whereas ESL programs give the students the knowledge of English in general life. ESP programs give the students the knowledge of work field English language, and from this point scholars attribute differently in defining ESP:

Mackay and Mountford (1978 : 2) define ESP as the teaching of English for a “clearly utilitarian purpose”. So, it is the needs of the learner which determine the purpose and the content of ESP curriculum. They may be academic, occupational, or scientific needs. They also define ESP as the special language that takes place in specific settings by certain participants.

Richards and Platt ( 1992: 198-199 ) define the term's "English for specific purposes" as any kind of English language that is associated with specific occupational or academic objectives of students who have known the particular vocabulary and understand certain language constructions peculiar to their fields.

Robinson et al (1989) describe ESP as a type of ELT (English Language Teaching) and defines it as a goal-oriented language learning. That is, students have a

specific goal that is going to be attained. The origin of ESP and its development is closely linked with learners' interest and needs in various specific disciplines ,e.g., Law English, English for Hotel Industry or English for Tourist Management.

Students learn English for a specific purpose, represented by studying subject matter, to gain and develop appropriate knowledge and skills through English. That is why English language is not seen as the main goal in the process of learning, but rather a vehicle for its acquirement, as Robinson, et al (1989 : 396) say :

Students study ESP not because they are interested in the English language as such but because they have to perform a task in English. Their command of the English language must be such that they can reach a satisfactory level in their specialist subject studies.

The fact that learners know specifically why they are learning a language (Hutchinson & Waters, 1992: 6) is a great advantage on both sides of the process. They are going to achieve the same goal in the field of their studying branch, so learners' motivation, in a form of the same aim, enables the teacher to meet learners' needs and expectations more easily.

The learner and the way of learning ( acquiring language ) are considered to be the main factors in the whole process. This could be noticed when Hutchinson and Waters (1992: 19) emphasize that ESP is an approach not a product that means language learning not language use is highlighted. They draw the attention to a 'learning centered approach "in which all decisions as to content and method are based on the learner's reason for learning."



On this point linguists focused very much, so Dudley-Evans and Jo St John (1998) attribute in this field and divide the characteristic features of ESP in two groups according to its absolute and variable attributes.

**1.1.1.The absolute characteristics are :**

1. ESP is defined to meet specific needs of the learner.
2. ESP makes use of the underlying methodology and activities of the discipline it serves.
3. ESP is centered on the language (grammar, lexis, register), skills, discourse and genres appropriate to these activities.

**1.1.2.The variable characteristics are seen in five points:**

1. ESP may be related to/or designed for specific disciplines.
2. ESP may use, in specific teaching situations, a different methodology from that of General English.
3. ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation.
4. ESP is generally designed for intermediate or advanced students.
5. Most ESP courses assume some basic knowledge of the language system, but it can be used with beginners (Dudley-Evans, 1998).

Hutchinson and Waters (1992) do not emphasize any concrete limits of students' level or age. They emphasize learners' individual needs and specialist knowledge of using English for specific purposes. Although there exist several aims and different purposes why learning English, the way of learning may be the same.

Though the content of learning may vary, there is no reason to suppose that the processes of learning should be any different for the ESP learner than for the General English learner ( Hutchinson and Waters, 1992:18), and they add that ESP methodology could just ,as well, have been used in the learning of any kind of English.

English helps to lay a foundation for academic studies and future professions. Because of its global adoption, English is the only foreign language that is taught in basic and secondary schools in Palestine. The start of English language curriculum in the Palestinian schools saw the light in 2000 as a modern Palestinian version was introduced in grade 1 and forth in governmental and UNRWA schools. Before then, Egyptian English language curricula had been adopted and they were taught only from the age of 12. English ,nowadays, is a compulsory subject for grades 1 to 12 in both male and female schools, and Palestinian students study English for nearly 200 minutes a week.

All the four skills were simultaneously taught. The topics in the English courses concentrate on Arab culture, focusing on lifestyle, family orientation, and less on issues concerning Western culture.

In the Palestinian universities one can notice that some lecturers use English as a language of instruction , and many textbooks are written in English, so it is a must for university students to master English in all majors, and for this reason the IUG adopted some ESP curricula for its students.

## **1.2. The need for the study:**

Since one cannot learn unless being motivated , and since the interests of the learner embody the main motivation especially in learning languages , the curricula designers , teachers and stakeholders should take into consideration the learners needs in designing language curricula mainly when they design an ESP one.

Based on this point many studies were conducted on ESP curricula, teachers or even learners in all over the world, but none were conducted to express ESP in Palestine and to diagnose the strength and weakness points that ESP learners face in dealing with their ESP textbooks from the curricula designers, teachers and the students' points of view. So the present study came ,as an attempt, to shed light and diagnose the problems that English for Engineering purposes learners face in order to present solutions which could be a base on which curricula designers and teachers could depend on in their dealing with such field.

## **1.3.The statement of the problem:**

The problem of the study can be stated in the following main question:

What are the difficulties encountering IUG engineering students in studying the English for engineering course?

#### **1.4.The research sub-questions:**

1. Are there any statistically significant differences at ( $\alpha \leq 0.05$ ) in the difficulties of learning English course for engineering due to learners' gender ?
2. Are there any statistically significant differences at ( $\alpha \leq 0.05$ ) in the difficulties of learning English course for engineering due to the students' accumulative average?

#### **1.5. Research hypotheses:**

1. There are no statistically significant differences at ( $\alpha \leq 0.05$ ) in the difficulties of learning English course for engineering due to learners' gender.
2. There are no statistically significant differences at ( $\alpha \leq 0.05$ ) in the difficulties of learning English course for engineering due to the students' accumulative average.

#### **1.6.The purpose of the study:**

The main purpose of this study is to investigate the difficulties encountering engineering students when studying English course for engineering at the Islamic university of Gaza .So it is considered as a survey to find out the difficulties engineering students face in studying the English course for engineering at the Islamic university of Gaza to guide stakeholders in developing English for engineering curricula to suit the Palestinian students.

## **1.7.The significance of the study:**

The study may benefit:

- **ESP Teachers:**

This study may help teachers or university lecturers in showing the areas of difficulty that the engineering students face in studying the English course of engineering . So that they can use different methods or teaching styles to overcome these difficulties.

- **ESP Syllabus designers:**

Since ESP is students interests oriented, this study could be a base on which the Palestinian syllabus designers can set up a Palestinian oriented English for engineering syllabus.

## **1.8.Operational definition of terms:**

- **ESL:** English as a second language refers to the use or study of English by speakers with different native languages in an ESL setting.
- **EFL:** English as a foreign language refers to the use or study of English by speakers with different native languages in an EFL setting.
- **EGP:** English for General purposes is the language that is used every day for ordinary things in a variety of common situations; therefore, English for Specific purposes refers to the use of English to discuss specialized fields of knowledge .

- **ESP:** is a sphere of teaching English language including technical English, scientific English, English for medical professionals, English for waiters, and English for tourism. Aviation English as ESP is taught to pilots, air traffic controllers and civil aviation cadets who are going to use it in radio communications. ESP can be also considered as an avatar of language for specific purposes.
  
- **English for Engineering:**  
It is teaching and learning English for engineering professionals  
  
( Technical English ), to be used in workplace.
  
- **English course for Engineering:**  
It is a course published in Cambridge university and specialized for engineering students to help them in studying some engineering topics and terms in English and adopted by the Islamic university of Gaza.
  
- **Students of English course for Engineering:**  
Mainly those first level students who are enrolled in the IUG Engineering faculty .
  
- **IUG:** The Islamic University of Gaza (IUG) is an independent Palestinian institution located in Gaza. It was established in 1978. It was the first higher education institution to be established in Gaza. This university, unlike other universities in the occupied territories, is not coeducational. The total number of the students of both sexes is around 5000. It has 205 faculty members. The English Department has 180 students and 21 faculty members . It began with three faculties in 1978 and currently has eight faculties introducing BA. B.Sc., MA, M.Sc., Diploma and higher diploma in a variety of disciplines.

- **Needs:** refers to the expectation of English language skills that learners need to get the English language subject.
- **Problems:** refers to the difficulties level that learners encounter in English language skills: listening , speaking, reading and writing.
- **Wants:** refers to the preference of learners concerning the purpose of learning and teaching, English course , methodology and time.

### **1.9.Limitations of the study:**

The limitations of the study are confined to the following points:

- **The sample of the study:**

The sample of the study consisted of (210) students with percent (48.7 %) randomly chosen .

- **The place of the study:**

The engineering faculty at the Islamic university of Gaza.

- **The time of the study:**

The first semester of the university year 2010-2011.

### **1.10. The Summary:**

This chapter shows the background of the study by presenting the introduction and statement of the problem of the study .In addition to that, it focuses on the questions and hypotheses ,purposes and significance of the study .Finally it mentions the definitions of its terms and then the limitations of the study.

# **Chapter II**

## **Literature Review**



## II

### Literature Review

#### 2.1.Introduction

Today, language knowledge is considered not only a basis for better communication, but also an important source of the technological progress as it enables rapid exchange of both information and research of common global problems. The development of language skills aims at active expansion of the students' proficiency in English. At higher schools ,language classes always make use of the texts of specific professional areas ( architecture, business, civil engineering, electronics, environment, management ,etc. ) . Such texts should usually be focused on the communicative needs of the students of a certain higher school. However, teaching/learning ESP includes much more than the teaching of English through specific material and content. Teaching ESP combines development of linguistic skills together with the acquisition of specific information . Even homework assignments should be associated with both the specialty and the skills mentioned.

Active participation in various interdisciplinary cooperative programs on the international level requires academic knowledge, scientific competence and objective evaluation of new ideas. The knowledge of English facilitates the access to the resources of new information.

## **2.2. English for specific purposes (Definitions & Characteristics):**

It is still unclear to determine what is meant by ESP. Some scholars in this field have simply describe it as the teaching of English for any purpose that could be specified. Others, however, were more precise, describing it as the teaching of English for academic studies or the teaching of English for vocational or occupational purposes. In the following lines, some definitions of famous ESP are presented to be discussed:

“English for specific purposes is a term that refers to teaching or studying English for a particular career (like law, medicine, etc.) or for business in general.” (International Teacher Training Organization, 2005). So there is a specific reason for which English is learned.

Mackay and Mountford (1978 ) define ESP as the teaching of English for a “clearly utilitarian purpose”. So it is the needs of the learner which determine the purpose and the content of ESP curriculum . They may be academic, occupational, or scientific needs. They (Mackay and Mountford) also define ESP as the special language that takes place in specific settings by certain participants.

Richard and Platt ( 1992 ) define the term as any kind of English language that is associated with specific occupational or academic objective of students who have known the particular vocabulary and understand certain language constructions peculiar to their fields.

Robinson (1980) defines ESP courses as "ones in which the participants have specific goals and purposes (academic, occupational, and scientific)". She states that those purposes should be fully understood as the driving force of the curriculum, where

as out of these purposes the curriculum designers should put the principles of their educational material. So she suggests that the curricula designers can get help from the learners to set a curriculum that suits the learners attitudes.

In his definition Strevens (1988) distinguishes between four absolute and two variable characteristics of ESP, in terms of absolute characteristics, ESP consists of English language teaching which is (i) designed to meet specified needs of the learner, (ii) related in content (i.e. in its themes and topics) to particular disciplines, occupations and activities, (iii) centered on the language appropriate to those activities in syntax, lexis, discourse, semantics, etc., and analysis of this discourse, and (iv) in contrast with General English, in terms of variable characteristics, ESP may be, but is not necessarily, (i) restricted as to the language skills to be learned (e.g. reading only), and (ii) not taught according to any pre-ordained methodology.

Robinson and Coleman (1989) describe ESP as a type of ELT (English Language Teaching) and defines it as: “Goal-oriented language learning.” (Robinson and Coleman, 1989, : 398) which means a student has a specific goal that is going to be attained. However Anthony (1997) refers to the considerable recent debate on the meaning of ESP despite the fact that it is an approach which has been widely used over the last three decades.

Dudley-Evans and St. John(1997) offer a modified definition for ESP which is considered as an extension of the definition proposed by Strevens (1988) in terms of absolute and variable characteristics. According to Dudley-Evans and St. John, in terms of absolute characteristics, ESP (i) is defined to meet specific needs of the learner,

(ii) makes use of the underlying methodology and activities of the discipline it serves, and (iii) is centered on the language (grammar, lexis, register), skills, discourse and genres appropriate to these activities.

In terms of the variable characteristics, ESP (i) may be related to or designed for specific disciplines, (ii) may be used, in specific teaching situations, a different methodology from that of general English, (iii) is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation, and could also be for learners at secondary school level, (iv) is generally designed for intermediate or advanced students, (v) assumes some basic knowledge of the language system, and (vi) can be used with beginners.

A comparison of this latter definition with that of Strevens reveals that Dudley-Evans and St. John have removed the absolute characteristic that "ESP is in contrast with General English" and added more variable characteristics. They assert that ESP is not necessarily related to a specific discipline. Furthermore, ESP is likely to be used with adult learners although it could be used with young adults in a secondary school setting.

Dudley-Evans' definition is clearly influenced by Strevens' one ( 1988 ) although he modified it by removing the absolute characteristics that ESP contradicts with EGP, and he has mentioned more variable characteristics. (Johns and Dudley-Evans, 1991: 298)

Dividing ESP into absolute and variable characteristics can help alot in resolving the arguments about what is and is not ESP when one can see that ESP can be (though not necessarily so) concerned with a specific discipline, nor does it have to be aimed at a certain age group or ability range. ESP should be seen simply as an 'approach' to

teaching, or what Dudley-Evans describes as an attitude of mind. This is a similar conclusion to that made by Hutchinson and Waters (1987:19) who state, "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."

A broader definition of ESP is that provided by Hutchinson and Waters (1987) who theorize ESP as an approach to language teaching which takes into account the learners' reasons for learning in making decisions related to content and method. Commenting on this definition, Anthony (1997) states that it is not clear where GPA ends and ESP starts. Numerous non-specialist ESL instructors use an ESP approach in that their syllabuses are based on analysis of learner needs and their own personal specialist knowledge of using English for real communication.

Perren (1974) notes that the terms "special language" and "specialized aim" are confused although they refer to entirely different notions. Mackay and Mountford (1978) explain that the only practical way in which we can understand the notion of "special language" is as a restricted repertoire of words and expressions selected from the whole language because that restricted repertoire covers every requirement within a well-defined context, task or vocation. On the other hand, a "specialized aim" refers to the purpose for which learners learn a language, not the nature of the language they learn. Consequently, the focus of the word "special" in ESP is on the purpose for which learners learn and not on the specific jargon or registers they learn. As such, all instances of language learning might be considered ESP.

The origin and development of ESP is based on learners' interests in specific discipline e.g. English for Law, English for Hotel Industry or English for Engineering,

and from these interests, ESP gets its own stamp either in developing its curricula or choosing the appropriate methods of teaching . For this reason one can see how English language is not a goal in the learning process, but a vehicle to achieve another goal .In this context , Robinson and Coleman, (1989: 396) state,

Students study ESP not because they are interested in the English language as such but because they have to perform a task in English. Their command of the English language must be such that they can reach a satisfactory level in their specialist subject studies.

From the point that “learners know specifically why they are learning a language“ (Hutchinson & Waters, 1992: 6) one finds learners are more motivated in ESP lessons than in other lessons which could be considered as a great advantage in the teaching-learning process whereas this advantage could simplify the way of achieving the educational objectives. Moreover, students in the ESP class achieve the same aim in the same time and that enables teachers to meet the students needs and expectations easier through saving time and effort. So, the main factors in ESP lessons are the learner and the teaching method or approach and that what made Hutchinson and Waters (1992) emphasize ESP to be an approach not a product which means language learning not language use is highlighted. Starting from this point, they draw the attention to a ‘learning-centered approach’ “in which all decisions as to content and method are based on the learner’s reason for learning.“ (Hutchinson & Waters, 1992: 19).

Absolute and variable characteristics got a great deal of attention not only in Strevens, (1988) definition of ESP as mentioned earlier , but also we see Evans and Maggie (1998) use these characteristics when they divide the characteristic features of ESP into two groups according to their 'absolute' and 'variable' attributes: The absolute characteristics are as follow :

1. ESP is defined to fulfill learners' specific needs and learning desire.
2. ESP makes use of all the methodology and activities of the discipline it serves. For example, English for Engineering could make use of the methodology and activities of Engineering and the same for other disciplines. ESP doesn't concentrate on all language skills but on some useful skills in the workplace such as grammar, lexis and register )

The variable characteristics are seen in these five points:

1-ESP may be related to or designed for specific disciplines ( Engineering, Medicine, Tourism .... etc ).

2- ESP has its own educational methods , approaches and activities that couldn't be applicable to EGP.

3-ESP is designed to meet those learners who seek for specific profession, so as a result it is designed to adult learners.

4-ESP is generally designed for intermediate or advanced students who have a good proficiency in English language.

5-Most ESP courses assume some basic knowledge of the language system, but it can be used with beginners (Dudley-Evans, 1998).

Hutchinson and Waters (1992) do not emphasize any concrete limits of students' level or age, they emphasize learners' individual needs and specialist knowledge of using English for specific purposes. Although there exist several aims and different purposes why learning English, the way of learning may be the same.

“Though the content of learning may vary there is no reason to suppose that the processes of learning should be any different for the ESP learner than for the General English learner”.

They add that ESP methodology “could just as well have been used in the learning of any kind of English.

After reading these definitions we get a general image that this field , as its name shows, is derived from the needs of the students, learners or participants, where as it is founded to help the learners to use language for specific situations, fields and circumstances "ESP instruction should closely relate to learners' reasons for learning and the materials normally have the features of the target situation (Carver, 1983)".

### **2.3.Historical Development of ESP:**

A number of studies about the origin of ESP were conducted, but researchers don't agree on their findings. They agree that ESP has passed through five stages in its development since it began in the 1960s or even before. The first stage is going back to older times, when language was generally recognized as authentic , such as language of a banker would use in transaction in foreign country (Robinson, 1980 ) .



Hutchinson and Walters (1987) introduced one of the oldest ESP books which is a book about phrases for tourists which was published in 1576. Strevens (1977) also introduced one of the earliest Specific Purpose Language Teaching (SPLT) materials in the course-type “German for Science Students.” In a second stage, during the 1960’s and 1970’s, the trend in ESP switched towards the study of register analysis, based on work conducted by Peter Strevens, and this is what many linguists follow in their works such as: Halliday, McIntosh, Strevens, (1964), Ewert and Latorre, (1969), and Swales (1971).

Register analysis is based on the premise that, for example, the language of engineering is different from that of medicine, and the analysis of discourse consists of identifying the grammatical and lexical features of such registers. The purpose of doing this was to organize ESP courses that were more relevant to the learners’ linguistic needs since the goal was to focus on the language forms learners would commonly come across within their fields of specialization, rejecting those that were not relevant.

Perren (1969) argues that it is useful to recognize language for special purposes or a variety of registers according to the different fields of specialization where they are used. Lee (1976) considered two aspects in the study of register. First, a lexical analysis of the language to deal with, focusing on frequency of occurrence of items and their presence or absence in the language used in specific settings and for specific purposes. Second, he refers to the syntactic analysis of that language. Robinson (1980) suggests that ESP must imply special language or special register. She adds that often register is a term used to mean simply vocabulary and language use (collocations). Even though sometimes there is no agreement on how to approach and define register, there is agreement on the need for greater precision and less generalization when it comes to

describing the characteristics of “special registers.” By describing register, curriculum developers were able to tailor their programs to the needs of their learners in their specific settings of use. On this, Spencer (as cited in de Grève, 1972), criticizes register studies because they were text oriented and suggests a shift to the use of role activities where, according to Candlin (1978) language can be used to achieve communicative purposes. Widdowson (1979) advocates a shift from a quantitative approach (the analysis of register and lexis) to a more qualitative approach (the development of learners’ communicative competence as they perform language in role plays.) He also argues that such a qualitative approach needed to be perfected and advocated to emphasize on discourse analysis and what has been called the communicative approach to the teaching of languages.

According to Hutchinson and Walters (1987), the third stage of ESP was characterized by a switch from register analyses and the grammatical and lexical level of the sentence to the study of discourse or rhetoric analysis. Hutchinson and Waters (1987) emphasize the attention that should be given to the understanding of how sentences are combined to produce real meaning. Robinson (1980) refers to register as spoken interaction that is made up of units of meaning that have a certain hierarchy. She also defines register as a group of words spoken or written that have to be analyzed in terms of cohesion. Widdowson suggests that such groups of words should be called text and not discourse because text would allow for the visualization of devices that signal structuring above the sentence level. The devices Widdowson refers to are complex grammar structures and linguistic rhetorical devices that put together to make up the text ESP learners would usually encounter in their fields of specialization. Hutchinson

and Waters (1987: 20) generalize the meaning of discourse to include considerations of “rhetorical functions for communicative purposes” .

In the fourth stage of its development, switching to a more communicative approach to the teaching of foreign languages, ESP shifted its attention to target situations. Hutchinson (1987) states that a target situation is one in which learners will use the specific language they are acquiring. He adds that during this stage, ESP curricula focused on identifying those special target situations for determined groups of learners in order to analyze the linguistic features common to those situations. For instance, target situation analyses are seen as a precursor of linguistic and situational analysis. One of the most popular examples of a situation analysis and communicative settings is the one developed by John Munby in *Communicative Syllabus Design* (1978). There he analyzed learners’ needs in terms of communication goals, the setting in which specific language would be used to communicate important information, means of oral and written communication, language skills possessed by learners, function, and structures. If, Munby argues, learners need to meet communication goals, they need to be proficient and competent in the use of English in their specific vocational, scientific, or work settings.

The emphasis on target situations as a form of needs analysis then involves what researchers have called linguistic competence. It is understood on the basis of linguistic performance, the ability to use language accurately, proficiently and fluently in a broad variety of settings. Based on this description, then, linguistic competence can be understood as made of grammatical, pragmatical , socio-linguistic, strategic, and communicative sub-competencies.

In turn, this concept is tightly linked to what language ability means in the context of specific language use settings. Douglas (2000) states that language performances always vary in terms of the different directions science and humanities have taken (specialization), and that a learner's language ability will be different from one performance target situation to another. Therefore, while a learner might have a great deal of knowledge about computer science, another might have lesser or greater knowledge in a different science, such as medicine, laboratory work, and others. By understanding those differences and by clearly defining the subject matter or specialization, curriculum developers will have a good starting point for developing appropriate curricula for ESP settings. What is more, it must also be acknowledged that learning the needs ESP learners have would greatly influence the other elements of an ESP curriculum. It is because of this that needs analysis must be learner-centered (West, 1984).

Douglas (2000) also argues that the language used in the different academic, vocational, and professional fields has become very precise. This means that communicative functions in those fields have become specific in terms of syntax, morphology, semantics, phonology, vocabulary, and discourse to the extent that for anyone who is outside those fields. The language used in them may seem like an impenetrable mystery. Let us take for example laboratory technicians or professionals who take samples of blood, tissues, plasma, etc. to be analyzed by using electronic microscopes, contrasting colors, centrifuges and other instruments, in order to find out viruses, microbes, cysts, etc. or for physicians to prescribe fungicides, medicines, etc.

This kind of language and setting would be “mystery land” for a professional specialized in mining procedures for example. A similar example can be found in the realm of morphology, where language (i.e. specific vocabulary) is shaped by the use of prefixes and suffixes, especially from Greek and Latin. For example, the prefix a- (without) attached to the root sepsis (infection) forms the word asepsis, which means without infection; the suffix -ology (study of) attached to the root word cardio (heart) to form cardiology must be understood as very precise both by instructors and learners in a hospital setting, for example. The discourse (uttered by a nurse): “The quicker we can get people up and walking and the sooner we can get them coughing and breathing, we’re preventing potential complications that could be life-threatening” refers to patients, not construction workers. In it, complications refer to illnesses and not all the red-tape constructors have to deal with in order to obtain permission to build a building. This precision of language then is a key factor to determine what type of curriculum is necessary for different ESP courses.

In stage five, ESP had to deal with the mental processes which imply the use of language, and focus on the development of skills and strategies which learners need in order to acquire a second language.

Hutchinson (1987) states that there are reasoning and interpreting processes underlying all types of language use and that those processes enable people to extract and handle meaning from discourse. The focus then is not so much on the surface forms of language, but on the underlying strategies learners use to deal with the external or surface forms. He argues that some of those strategies could be understood, for example, as the ability to guess the meaning of a word from the context in which it is

presented, the use of words that are similar in both L1 and L2, the use of discourse markers to ask for clarification or keep a conversation going, and others. As consequence, no attention was given to special registers or subject registers because no specific underlying processes are needed to interpret them.

Hutchinson (1987) states that even though the focus of ESP courses has been on what people actually do with language (the surface and underlying forms of language and the mental processes learners use to deal with it), a more clear understanding of the processes of language learning is a more valid approach to ESP. In this sense, he also argues that everything in the teaching process should aim at helping learners to use their learning strategies in order to meet their learning goals. In order to do this, ESP curricula developers are encouraged to involve learners in the making of curricula from the beginning focusing on what their learning needs are and how they learn.

Depending on what has been mentioned, one can say that needs analysis is the essence of designing any ESP curriculum . It gets its importance because it gives the curriculum designer wide sufficient information about not only the proficiency level of the ESP learners, but also the language needs which ESP learners want to have.

Once curricula-designers discover these two important student-related facts, then they can write the course objectives, make decisions on what to include in the syllabus or for example, what functions, topics, vocabulary, After knowing these two important student-related facts, curricula designers can put clearly the lay-out of any ESP curriculum which will include the appropriate vocabularies, structures, topics or any other language skill, and they should take in consideration that other language procedures should be given emphasis over others that students already master.

Once the syllabus is in place, then decisions about how to teach it and when to teach it should be made. This in turn will lead curricula-designers to design and create or adapt teaching materials that would cater to the learners' linguistics needs, which in turn will shape testing of language learning. This is precisely the reason why it is often said that needs analysis drives the making of a curriculum.

## **2.4.ESP VS EGP:**

### **2.4.1.Two Types of English:**

The division of the English language studies into two types requires careful scrutiny of the needs and interests of the learner. Traditionally a secondary school learner or even a college student does not think much of the way he is going to use his foreign language knowledge. He realizes he needs this subject as it is included in the general curriculum and may become an important component when entering a higher school. On the other hand, general language teaching covers the teaching of the fundamentals of grammar, of expression as well as of phonetics and provides a stronger or weaker basis for possible later language studies. In any case the language teacher both at a secondary and at a higher school is in charge of the correct use of the language by its learners.

Teaching language for specific purposes is determined by different professional / occupational, social and other – needs of the learner. Therefore English for specific purposes (ESP) includes specialized programs which are designed to develop the communicative use of English in a specialized field of science, work or technology. To be able to speak on a professional subject is not enough to know general vocabulary.

However, a great part of professional vocabulary consists of general words, which either have a shift of meaning or make a new unit, usually becoming a compound word or a combination of words.

In the case of ESP language teaching/learning is purposeful, i.e. predetermined by the need of the student not only to get familiarized with both the language of science and technology, thus with the English language of the subject she studies but also with the subject itself. Making use of a foreign language, the student acquires profound professional knowledge. So the language becomes a means of teaching profession and appears to be significant in the context of the professional world.

Nowadays the student has access to the Internet, and the knowledge of English opens him the doors to getting global information and the exchange of the information on the items he/she is interested in. Therefore, teaching/learning ESP is said to be specialty-oriented as it is submitted to specific (professional) needs of the student.

Specific skills come from the selected texts which present special vocabulary and show the richness of the language in that field. Thus, it is difficult to determine where language learning ends and where subject learning starts or vice versa.

On the other hand, language study at a higher technical school does not confirm itself as a discipline in its own. Language becomes an interdisciplinary subject, a kind of intermediary directed towards increasing one's professional career having in view of possible studies abroad according to a great variety of students' exchange programs or in search of a job which gives satisfaction which is a hard task to achieve under conditions of competition in the labour market.



If the student is aware of difficulties of communication s/he will solve this problem by learning languages. In order to provide a proper and thorough foundation in the use of English for professional purposes, it is necessary to revise and further develop the student's command of general English, particularly, for many different everyday uses of English. The student, of course, is expected to use English in his professional environment as well as in everyday situations. He/she must be able to take part in real life events , to ask questions and to answer them demonstrating his knowledge.

Cook asks “What does another language do?” And the answer is: “Learning another language makes people think more flexibly, increases language awareness and leads to better understanding of other cultures.” (Cook, 2001: 197). But this is one side of the matter. The other is that the person becomes competent in his professional field. Communicative competence is the term which “has come to be used in language teaching contexts to refer to the ability to convey the meaning to successfully combine a knowledge of linguistic and sociolinguistic rules in communicative interactions” (Savinton, 1983: 123).

Pham (2001,:7)thinks that in order “to attain effective communication in international settings, nonnative speakers must use linguistic and cultural norms which are mostly set by native speakers of English”. Here we again approach to teaching the two types of English – the General and the Specific. Both of them develop one's ability to communicate in any form – oral or written. In both cases linguistic knowledge includes the correctness of grammatical structures, proper choice of words and precision of their meaning.

The primary goal in teaching ESP is to provide the student with practical use of English revising the knowledge built earlier. ESP concentrates not only on the recognition of particular structures of sentences or word combinations, but also on the choice of terms and meanings of words in different kinds of texts. Grammatical competence is the domain of linguistic studies proper, while specific competence includes interdisciplinary field together with the understanding of the particular context the language is used in.

## **2.5. The Basic Conceptions/Principles of ESP:**

Five conceptions are considered to be the foundations, essential features or basic principles of ESP. Swale (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 originate 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. Each of the conceptions will identify a focus-based approach to ESP and serve as a contribution to the concept of ESP itself.

### **2.5.1. 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.

As discussed above, the main objective of ESP is usually developing communicative competence. This could only be achieved through an adoption of authentic materials that serve the needs of learners in different fields such as aviation, business, technology, etc. Some courses prepare learners for various academic programs. Others prepare learners for work in the fields such as law, medicine, engineering, etc. The problem that frequently arises with such ESP courses is the teachers' dependence on published textbooks available. These textbooks rarely include authentic materials in their design. A trained teacher should, therefore, resort to supplementary material that compensate for the lack of authenticity in textbooks.

Skills-based approaches to ESP have enlarged the conception of authenticity 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 each skill a distinction is made between different types of texts generated by a given skill. Reading, for example, may be sub-divided into reading reports, reading technical journals, reading instruction manuals, etc. Secondly, the conception of authenticity was enlarged to include authenticity of task. In effect, this meant designing tasks requiring students to process 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).

### **2.5.2. Research Based:**

Halliday, McIntosh and Stevrens (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 not 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.

### **2.5.3. Language/Text:**

In the 1990s, there has been a number of ESP projects which were triggered by concerns over international safety and security. The first of these was SEASPEAK. It was a practical project in applied linguistics and language engineering. According to Stevrens and Johnson (1983), SEASPEAK, which was published in 1987-1988, was the establishment for the first time of an International Maritime English. They explain that other ESP projects were published later as a result of the success of the first project. These projects included AIRSPEAK (1988) and POLICESPEAK (1994), with RAILSPEAK in preparation. Each of these projects involved a substantial research phase with linguists and technical specialists cooperating. The NEWSPEAK research shared the large-scale base of the register-analysis approach but the principal advance

was that it was now applied to a more sophisticated, four-level concept of text: purposes of maritime communication, operational routines, topics of maritime communication, and discourse procedures. Although register analysis remains small-scale and restricted to native-speaker encounters, later research demonstrated the gap between ESP materials designers' intuitions about language and the language actually used in ESP situations (Williams, 1988; Mason, 1994; Lynch and Anderson, 1991; Jones, 1990).

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 approach was clearly set out by two of its principal 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 the 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 has to do with rhetorical coherence of discourse, the second with the grammatical cohesion of text.

In practice, however, the discourse-analysis approach tended to concentrate on 'how sentences are used in the performance of acts of communication' and to generate materials based on functions. The main shortcoming of the approach was that its treatment remained fragmentary, identifying the functional units of which discourse was composed at sentence/utterance level but offering limited guidance on how functions and sentences/utterances fit together to form 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.

#### **2.5.4. 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 required for a specific field and the methodology for serving these 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 (communication 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 who 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.

A question, in the context of needs assessment that is often asked with respect to ESP, concerns who should be involved in the definition of such needs. Obviously, the teachers themselves are the most concerned in this process. But, for the definition of needs to be as reliable as necessary, it seems essential that both the learners and their potential employers are given an opportunity to voice their own views in the matter. In this way, we may talk about "real" perceived needs. However, the problem that exists in the Arab World in general, and Saudi context in particular, is that there is not yet a realization, neither by institutions nor by learners, of the importance of such a definition and assessment of needs. This is evident in the fact that such analyses are rare, and, if conducted, they are not taken seriously by both parties (i.e. institutions and learners). One reason for this carelessness could be cultural. Compared to the West, people in the Arab World are not used to articulating what they want; if they ever know what they really want. The result would be designing syllabuses and methodologies based on teachers' or employers' intuitions that do not directly address the real needs of the learners.

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 not a reasonable option for the university's English language program. The university will have to justify its existence and improve the program via other means. If the answer is yes, however, then ESP is probably the most intelligent option for the university curriculum. ESP begins with some basic questions to survey what will be needed. 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 extralinguistic knowledge of academia, specific disciplines, specific vocations, or specific professions is required for successful English usage in these areas?

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 (1978) model, established needs by investigating the target situation for which learners were being prepared. Munby's model clearly established the place of needs as the centre of ESP, where as it is 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).



To counter the shortcomings of target-situation needs analysis, various forms of pedagogic needs have been identified to give more information about the learner and the educational environment. These forms of needs analysis should be seen as complementing target-situation needs analysis and each other, rather than being alternatives. They include deficiency analysis, strategy analysis, and means analysis. Deficiency analysis gives us information about what the learners' learning needs are (i.e., which of their target-situation needs they lack or feel they lack). This view of needs analysis gains momentum when we consider that the question of priorities is ignored by standard needs analysis. In discussing learners' perceptions of their needs, deficiency analysis takes into account lacks and wants, as well as objective needs of the learners (Allwright, 1982). Strategy analysis seeks to establish how the learners wish to learn rather than what they need to learn. By investigating learners' preferred learning styles and strategies, strategy analysis provides a picture of the learner's conception of learning. Means analysis, on the other hand, investigates precisely those considerations that Munby excluded. These relate to the educational environment in which the ESP course is to take place. (Swales, 1989).

#### **2.5.5. 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 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 processes of language learning.

Hutchinson and Waters (1987) called this approach the learning-centered approach and stressed the importance of a lively, interesting and relevant teaching/learning style in ESP materials. The first ESP materials to adopt a conscious model of learning were probably those of the Malaysian UMESPP project in the late 1970s, but the approach has received its widest circulation in the papers and materials of Hutchinson and Waters, and, more recently, Waters and Waters (1992).

In the context of a language program that emphasizes the needs of the learners, anything but a learner/learning-centered 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, 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. A syllabus normally refers to "what is to be learnt with some indication of the order in which the items should be learnt" and "the interpretations that it is put to" (Hutchinson and Waters, 1987 81).

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 the students' discipline of study which will reinforce their motivation and the usefulness of the language to be learnt.

"Learner-learning centered", "task-based", "activity-based" and "problem-solving" are 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 such 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 these needs; 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 s/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.

## **2.6. Needs Analysis: A Springboard for ESP Syllabus Design.**

In the last decades, many studies were conducted on the second language acquisition and as a result many learning theories, teaching approaches and syllabus design approaches were founded or developed. English language in this revolution of second language acquisition has extended from the classroom practice into workplace context due to the need of English, as a global language, in business.

Because of its importance in the workplace communication, English language should meet the requirements of the employers and the employees, so the design of English syllabus has shifted from the concentration on specific grammatical elements to the needs of the language learners in their jobs, occupations or workplace in general. As a result new branch of English language learning - English for specific purposes - has seen the light to fulfill the requirements and the demands of the learners who need specific type of language in their work . (Munby, 1980; Orr, 2002; Richards, 2001; Richards & Rodgers, 2001).

Hutchinson and Waters ( 1987 ) believe that the origin of English for specific purposes ( ESP )in English language training ( ELT ) was the sequence of three main factors: 1) English has become a global language with an economic communication need and an important mean to acquire modern knowledge and be up to date to all surrounding changes in this world, 2) the revolution in second language acquisition has shifted the focus on language components ( theoretical side ) to a using language in real communication ( empirical side ) , so one can see new approaches has been founded which concerns with the using of real communication as the communicative approach. 3) since the modern teaching theories believe that the learner is the centre of the

learning – teaching process, it has become a must to develop new language branches to meet the learner needs .

In the 1960s and 1970s ,the development occurred on the second language acquisition influenced the linguists to establish a specific language instruction to meet the needs of specific language learners with diverse learning experiences and learning style. (Hutchinson & Waters, 1987; Richards, 2001).

Hutchinson and Waters (1987, :19) define ESP as “an approach to language teaching in which all decisions as to content and method are based on the learner’s reason for learning”, and they add that “designing a course is fundamentally a matter of asking questions in order to provide a reasoned basis for the subsequent processes of syllabus design, materials writing, classroom teaching and evaluation.”

Orr ( 2002 ) specifies three current natures of ESP as 1) subgroup of the ELT – the main linguistic root of other linguistic branches- , 2) a section of language teaching and learning and) a modern movement that needs specific curricula design in order to suit specific learners.

So applied linguists , English language curricula designers and English language teachers believe that ESP is characterized of being a type of English language teaching and learning that meets the needs of the specific learners and needs also specific methodologies applied by specific teachers of specific skills.

Orr wasn't the only one who put characterizations to ESP, but he is considered as a pioneer who opened the door to others to contributes in this field . On his steps Evans and John ( 1998 ) provide a broader characterization of ESP as a language teaching-

learning branch that is designed to meet the specific needs of the learners through employing effective teaching methodologies and activities. The process of teaching and learning focuses on developing the language skills through enrolling directly to writing genres that is accompanied with effective activities.

In the world of ESP program design, the curricula designers believe that not all learners have the same attitude toward language or language needs . Therefore , they believe that needs analysis is very important in designing any ESP curricula in order to determine the learners needs first then to form a suitable curricula that fulfills their needs, and this is what made many ESP expert to say that needs analysis is the heart of the design of ESP syllabus. Thus needs analysis is considered as the solid foundation of any ESP curricula because it provides the final goal of the whole program, and has been mentioned earlier needs analysis needs skilful course designers with experience both in the process of designing appropriate instruments for data collection and in data interpretation.

Because of this point, the issue of validity and reliability of the needs analysis got a great deal of concern of many researchers in designing ESP program to assure that the ESP program achieves its goals and helped the learners to get what the need to learn. This is the role of teachers and course developers to establish the appropriate needs analysis that could give a comprehensive vision of the learner's required needs in any ESP program. (Cowling, 2007; Long, 2005; Friedenberg et al., 2003; Orr, 2002; Richards, 2001; Aguilar, 1999; Evans & John, 1998; Feez,1998; Reeves & Wright, 1996; Nunan & Lamb, 1996 ; Hutchinson &Waters, 1987; Munby, 1980 ).

Long (2005c, :20), in particular, has noted that while “a substantial number of needs analysis has been reported in the literature and many more remain unpublished, there has been surprisingly little research on need analysis itself”, which has reveals the hidden danger behind adopting incomprehensive and ineffective needs analysis as a research method. However, there have been attempts on controlling validity and reliability of the data collected through needs analysis procedure, such as Jasso-Aguilar (1999) and Cowling (2007).

To ensure that the results gathered from conducting a needs analysis are the authentic needs of hotel maids in a hotel in Waikiki in the USA, Jasso-Aguilar (1999) determined their needs through using both quantitative and qualitative research methods. Three research instruments were used in a needs analysis : participant observation, a survey questionnaire and a document review. She proposes triangulation as the means to determine the validity and reliability which is crucial in ascertaining the real needs of the target language learners. To balance the needs obtained, she analysed her participant observations which proved to be the most useful method, allowing her to establish the genuine English communication needs of the hotel maids.

In an attempt to control the validity of the data for the research on a design of an English business communication course package for new-entry employed engineers at Mitsubishi Heavy Industries (MHI), Cowling (2007) has integrated various methods and sources in conducting a needs analysis, which included:

- 1) an unstructured interview with Mitsubishi Heavy Industries (MHI) clients, 2) a semi-structured interview with the target group teachers,3) a questionnaire with the target

group regarding working lives and areas of English needs, 4) an open-ended, structured questionnaire for students to complete together with their senior employees.

Cowling (2007) suggests that in the real practice of research, there are more complicated issues in the analysing procedure of the data collected. In the situation of this research, the learners are new to the contexts of their future jobs, and they have limited experience in the workplace, so their needs are not a true reflection of what their needs could be in the real working environments. Students' experience in the target language and the use of other informants, i.e. the clients, teachers and senior employees in his study other than the target students, provided essential feedback to the needs analysis process. In order to triangulate the data to control its reliability and validity, he employed an open-ended, structured questionnaire for students in the training organisation to complete, together with the senior employees in the companies.

ESP learners not only differ in their learning needs and target needs, but also vary in many other qualities, such as in their learning styles and experiences. Needs analysis, or the needs analysis process, therefore, becomes the first crucial effort in developing a constructive ESP program for a particular group of learners. The validity and reliability and the needs gained from the needs analysis appear to be the whole skeleton, or the practical guidelines in the program design.

Hutchinson and Waters (1987) divide needs into two main types: *target needs*: the necessary needs that the learner needs to get in the target language; and *learning needs*: that is what the learner needs to do in order to learn. That means the goal of needs analysis is based on the learner's awareness of the target situation, and this awareness will shed its light on the nature of the content of the language course in



addition to potential methods which should be developed or adopted in the teaching-learning process. Thus needs analysis should take place in all the steps of the educational process: in designing the curricula, through out teaching and learning the ESP syllabus and in the evaluation (Richterich, 1988).

Munby (1978a) concentrates on what (Richterich, 1988) says when he suggested a systematic procedure to carry out a needs analysis in designing ESP course. He mentioned two steps to carry out needs analysis: 1) to specify the target learner's communicative level competence and 2) to employ the information so gathered in designing the appropriate ESP syllabus. Munby suggested a comprehensive list of information which should be gathered to create a learner's communicative needs profile, involving: 1) *Personal*: age, nationality, sex, educational background, work experience, 2) *Purpose*: the communicative skills so the learners desires to acquire , 3) *Setting*: physical and psychosocial setting in which the language is required, 4) *Interactional variables*: the role of the relationships which are involved in the target language use, 5) *Medium, mode, and channel*: face to face written or spoken communicative means, 6) *Dialects*: all information on the utilized dialects either it is formal or casual , 7) *Target level*: refers to the required competency level in the target language, 8) *Communicative events*: micro- and macro-activities, for example, greetings, taking requests, clarifying information, describing menu items, and 9) *Communicative key*: the specific manner of communication, for example, formal or informal communication.

## **2.7. ESP Types:**

Carver (1983) identifies three types of ESP: English as a Restricted Language, English for Academic and Occupational Purposes (EAOP), and English with Specific Topics. A discussion of each will be presented in the following.

### **2.7.1. English as a Restricted Language**

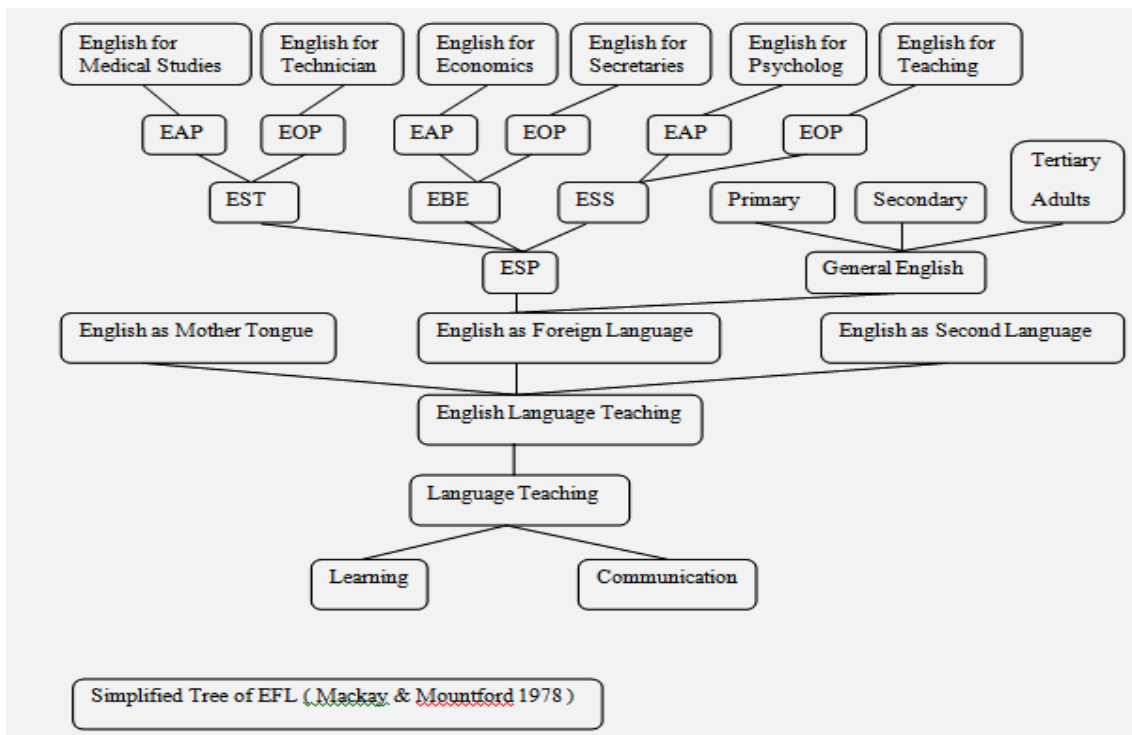
Language used by air traffic controllers or by waiters are examples of English as a restricted language. Mackay and Mountford (1978: 4-5) clearly illustrate the difference between restricted language and language with this statement:

... 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 not grammar. Knowing a restricted 'language' would not allow the speaker to communicate effectively in novel situation, or in contexts outside the vocational environment.

### **2.7.2. English for Academic and Occupational Purposes.**

The second type of ESP is English for Academic and Occupational Purposes. Carver (1983) indicates that this English should be at the heart of ESP although he refrains from developing it any further. Hutchinson and Waters (1987), on the other

hand, have developed a "Tree of ELT" in which the subdivisions of ESP are clearly illustrated. ESP is broken down into three branches: English for Science and Technology (EST), English for Business and Economics (EBE), and English for Social Studies (ESS). Each of these subject areas is further divided into two branches: English for Academic Purposes (EAP) and English for Occupational Purposes (EOP). An example of EOP for the EST branch is "English for Technicians" whereas an example of EAP for the EST branch is "English for Medical Studies."



Hutchinson and Waters (1987) do note that there is not a clear-cut distinction between EAP and EOP on the basis of the considerations that (i) people can work and study simultaneously, and that (ii) the language learnt in a teaching setting for academic purposes can be useful and employed by the learner in the occupational environment when he/she takes up, or returns to, a job. This may explain why EAP and EOP have

been categorized under the same type of ESP. The end of both types seems to be similar: employment. However, this shall not lead to the conclusion that the means through which the same end is achieved are also identical. They are very different indeed.

### **2.7.3. English with Specific Topics:**

This is the third and final type of ESP. It differs from other types of ESP in the sense that focus shifts from purpose to topic. That is, the focus is on topics that are in agreement with the anticipated future English needs of learners such as scientists requiring English for postgraduate reading studies, attending conferences or working in foreign institutions. It has been argued, however, that this type should not be viewed as a separate type of ESP but rather an integral component of ESP courses or programs with focus on situational language. This situational language has been determined based on the interpretation of results from needs analysis of authentic language used in target workplace settings.

In brief, there are three features common to ESP: (a) authentic materials, (b) purpose-related orientation, and (c) self-direction. These features are indeed useful in attempting to formulate one's own understanding of ESP. Revisiting Dudley-Evans (1997) believes that ESP should be offered at an intermediate or advanced level. One would conclude that the use of authentic learning materials is entirely feasible. The use of authentic content materials, modified or unmodified in form, is indeed a feature of ESP, particularly in self-directed study and research tasks. Purpose-related orientation, on the other hand, refers to the simulation of communicative tasks required of the target setting, for example, student simulation of a conference, involving the preparation of

papers, reading, note taking, and writing. Finally, self-direction is characteristic of ESP courses in that the point of including self-direction is that ESP is concerned with turning learners into users. In order for self-direction to occur, the learners must have a certain degree of freedom to decide when, what, and how they will study. There must also be a systematic attempt by teachers to teach the learners how to learn by teaching them about learning strategies (Hutchinson and Waters, 1987; Dudley-Evans, 1997 and 1998; Shohamy, 1995; Douglas, 2000).

## **2.8. ESP learners:**

There are two learner aspects of paramount importance when the topic of ESP learner-centered approaches is the objective of research and discussion: age and motivation. These two aspects will be further discussed as they are established as supporting pillars of ESP curriculum design.

Robinson (1980) states that ESP curricula needs to be developed based not on requirements imposed by language institutions or work supervisors, but on real needs of real learners in the diverse realm of the sciences and humanities.

Learners in ESP classes vary mostly in terms of age and motivation. What is more, these two characteristics are linked to each other in that most learners in ESP classes are highly motivated adults that usually have academic and professional goals they want to reach through the acquiring or improving their professional and language performance.

Sifakis (2003) refers to ESP adult learners in terms of age, educational, professional, and social background. He characterizes adulthood in terms of age, social status, and a number of values adults possess. In the same vein, Knowles (1990)

interpreted adulthood in terms of maturity, ability to make appropriate judgments based on experience, and autonomy. This last characteristic is of particular interest because autonomy prompts adults to make decisions responsibly, and drives their motivation as a key element in their acquisition of language. He also stated that adults are primarily workers and then learners, whose knowledge has been acquired through experience, but that is not always the case as we will see hereafter in this report. Besides, highly motivated adults in ESP classes are prone to be successful in learning specific language in specific settings because they are mature (expressed as a sense of personal growth and full development) and because they have a great sense of perspective and the ability to judge based on experience. He continued to say that these adults are also autonomous, which is tightly linked to motivation because autonomy allows them to voluntarily participate and get involved in what would contribute to their educational, professional, and social development.

Robinson (1991) referred to adults as goal-oriented people who do not want to learn English because they are interested in it, or because of pleasure or cultural reasons, but because they need it as an instrument that will help them reach their study and work goals, and consequently will help them advance professionally in terms of academic gain as well as financially.

These considerations are important in the development of ESP curricula regardless of the setting and the type of register to be addressed. Curricula developers need to be aware of the fact that adult learners are almost always voluntarily engaged in the learning process; highly motivated both intrinsically and extrinsically; conscious of their progress; reflective on their own learning; and willing to establish a learning contract in which they commit themselves to giving of their time and effort to learn.

Curriculum designers will discover that these characteristics will make their curricula learner-centered and one of their very driving forces. Something else that curricula developers need to be aware of is the fact that learning processes are voluntary and purposeful, so by actively involving learners in the planning process they would ultimately improve their motivation and commitment to fully participate in the course and improve their language proficiency.

## **2.9. Reasons for the Emergence of ESP.**

Hutchinson and Waters (1987) identify three key reasons they believe are common to the emergence of all ESP: the demands of a Brave New World, a revolution in linguistics, and focus on the learner. As to the first reason, they explain that two historical periods played an important role that led to the creation of ESP; the end of World War II and the Oil Crisis in the 70s. On the one hand, the end of the Second World War declared an era of expansion in scientific, technical and economic activity world-wide. The role of international language fell obviously to English because of the economic expansion of the United States in the post-war world. On the other hand, the Oil Crisis of the early 1970s resulted in Western money and knowledge flowing into the oil-rich countries. The language of this knowledge became English. This led consequently to exerting pressure on the language teaching profession, which boosted in this part of the world, to deliver the required goods. English now became subject to the wishes, needs, and demands of people other than language teachers.

The second very important reason that had a tremendous impact on the emergence of ESP was a revolution in linguistics. Most of the work of linguists in the 60s and 70s

of the past century focused on the ways in which language is used in real communication contrary to the works of traditional linguists 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, then tailoring language instruction to meet the needs of learners in specific contexts is also possible. Hence, in the late 1960s and the early 1970s there were many attempts to describe English for Science and Technology (EST).

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 70s 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-centered" or "learning-centered" perspectives on ESP.



# **Chapter III**

## **Previous studies**

## **III**

### **The Previous Studies**

#### **3.1 Introduction**

Several studies have found that English communication skills are in demand for global engineers to function in their day-to-day work on the globalised scale. Although English proficiency in communicating orally has been located as the most essential skills in interacting in international business communication, global engineers seem to require all the four skills of English in order to perform well in their work.

#### **3.2 English for Engineering Purposes: A Professional Demand**

Workplaces should provide communication-skill training for their employees to enhance company productivity (Tobias, 1998) and studies investigating workplace English communication for engineers have been rich and abundant. For example, a study by Yin (1988) indicated that in Singapore, while some engineering undergraduates already had adequate English for the technical aspects of their academic and professional work, they needed appropriate interactive and interpersonal skills in English. Yin added that the engineering students needed a communication skills course which could prepare them to effectively present themselves (as engineers) in oral communication. The need for an “oral skills” program is significant because a considerable amount of their working time is spent on English oral communication. Interactive and interpersonal competence in oral English could obviously impact on their career and the organizations they work for.

In Puerto Rico, where English was once the official language due to the influence of United States' colonisation, Perez (1999) examined the use of English and Spanish in manufacturing plants and found that Spanish was the predominant language in the workplace for speaking whereas English was employed in the working domain in emails and on the internet. However, the use of English was found to be related to job responsibility. In high-level positions (office, management, and engineering), English was required more than those in low-level jobs (production, warehouse, and housekeeping). In general, employees found that English was very useful in their work. With good English skills, they were able to have greater opportunities for promotion to higher positions and to be better paid.

In Hong Kong, Evans (1999a) conducted a survey to explore the English language needs of building services practitioners in Hong Kong at the time of the Hong Kong transition from a Crown Colony to the Special Administrative Region of China. His results suggest that writing and reading faxes, letters, memos and reports in English were regularly required. The time spent in reading in English was more than in writing in English. Though English did not play a very important role in everyday oral communication in the workplace, it was used in more formal situations such as seminars, presentations and conferences.

Evans (1999b), in addition, carried out another case study of the Hong Kong construction industry focussed on workplace communication. He argues that English is the main language of records and for formal written communication in the workplace. The usual medium of everyday spoken communication was Cantonese whereas spoken

English was required in formal workplace communication, particularly in dealing with foreign partners.

In a qualitative study, Watson (1999) examined, through case studies, interviews and documents she collected, what characteristics caused an engineering student to receive a job offer. The result indicated that engineering graduates who are able to present themselves as a total package have:

- 1) previous co-operative experience.
- 2) relevant coursework.
- 3) teamwork skills.
- 4) communication skills.
- 5) project management skills.
- 6) high organisational skills.
- 7) the ability to be a self-starter.
- 8) those who have computer- skills. Such people are better able to get a job.

Shea (1997) made use of the combination of a comprehensive mail survey and a special program called multi-objective decision modelling and linear programming in the design of an engineering curriculum for an Industrial and Manufacturing Engineering program at Oregon State University. The research results indicated that the desirable skills of engineering graduates in the 21st century consisted of technical depth skills and breadth skills. While technical depth skills were needed for technology, traditional

industrial engineering and operations management, and computers, the breadth skills involved working in teams, communicating in a group with precise ideas so others could understand, listening, writing, understanding foreign languages and cultures, the ability to motivate others and understanding the impact that technology has on the quality of work life. The survey also showed that the primary focus was supposed to increase the breadth of skills in communication, problem solving and people skills.

In Pholsward's study (1993), a very good research study in Thai's context, he surveyed the English language skills most needed by computing professionals in the Thai organisations through structured interviews and a questionnaire. The data indicated that speaking skills in English were of great importance in almost all computing jobs, followed by reading and writing respectively. Moreover, the participants found that English programs focusing on general English were those most urgently required. They also made the following recommendations:

- Commercial ESP materials should be used with an integration of the communicative skills needed.
- The combination of both general and technical resources seems relevant for reading practice. Authentic materials should be utilised to make the reading tasks as realistic as possible.
- Some specific speaking activities should be emphasised in language courses, such as product explanation, daily conversations, presentations, and meetings. It is essential that students be informed of the importance of the speaker's roles in different social interactions to be able to use language forms and functions in various contexts

appropriately. They should be given more opportunities to do individual oral reports and brief talks/presentations which they will be required to do in their work.

- From the subjects' experience, they wrote more on activities with a focus on particular forms of writing, such as reports, short notes, memoranda, summaries, and correspondence/telex/fax. Language practitioners should devise such writing activities for learners' practice and emphasize both grammatical correctness and appropriateness of language use for greater efficiency in written communication.

Leepatanapan's (1997) study developed a methodology for designing an industrial needs-driven curriculum and applying it in the manufacturing engineering and technology education sector in Thailand. The results indicated that to respond to current and future industrial needs, curricular content is required to be focussed on the combination of two essential principles: technical skills and enterprise skills. While technical skills involve engineering fundamentals, manufacturing core courses, and other manufacturing-related courses, enterprise skills concern those needed when performing in the real work environment such as communication and team work, knowledge of business and management practice. English language courses ought to be focused more on daily usage including the four macro-skills: reading, writing, listening and speaking.

Raimaturapong (2005) analysed job advertisements in Thailand and found that English language proficiency was frequently demanded. Further analysis of the attitudes of employers by English language teachers, engineering teachers and administrators towards English language curricula offered in one institute, and of the frequency and patterns of English used by engineers in some workplaces in an industrial estate in

Bangkok, revealed that Thai engineers were required to read various types of texts on a daily basis and to frequently write short texts such as procedures, requisitions and notes or messages. Generally, engineers spend more time reading English at work than writing.

Therefore, not only is engineering knowledge required, but also the communication skills are also necessary for global engineers for their future career pursuits. The communication skills are not only about English language communication skills, but also include working in teams and having problem-solving abilities. However, it has been found that the workforce recruited from further or higher education was not sufficiently equipped in these essential skills (Cameron, 2002), particularly in English communication skills.

### **3.3. Oral Communication Skill: The Biggest Demand**

Throughout the literature review, it has been found that most studies on ESP needs analysis have placed the oral communication skills, the listening and speaking skills, in the most dominant position for enhancing learners' English communication through syllabus design.

For Yin (1988), in the design of an effective Communication Skills course for a mechanical and production engineering program in Singapore, oral communication activities are the main focus of the 27-hour course. The course aims at providing learners with interactive and interpersonal skills in English communication in the workplace. He conducted interviews with around 60 engineers and employers of engineers in industry, to investigate their career needs on communication tasks across

multinational companies in Singapore. The result showed that engineers had to write 'reports' and oral communication was part of their work routines. The written reports were mostly involved with routine reports of a technical nature, usually on the standard company form. The scope and quantity of the writing was mainly based on the company's activities and the individual's position. Most time was spent on oral communication on the job, ranging from 70 percent to 80 percent of the time, and the frequency of the oral communication was related to the level of their position: the higher the position, the more frequent the oral activities. The ability to get on with people and to motivate subordinates through good communication skills appeared to be an important criterion for profession promotion.

In order to promote oral communication proficiency of the learners, Yin utilised simulation exercises as a key resource to provide a real life engineering environment. Teaching/learning resources involved a basic knowledge of what is used in communication and authentic engineering materials, mainly from case studies published in engineering journals. In the actual practice, learners will integrate these learning experiences and critically make use of them in the real life tasks assigned. The course has been divided into five modules, ranging from a limited communication task to more complex ones such as: 1) a two-minute prepared/ unprepared speech, 2) an intra-organisation interview, 3) a group meeting, 4) a job interview and 5) a presentation of a team project.

Bosher and Smalkoski's study (2002) emphasised particularly the importance of listening and speaking skills. They provided a comprehensive description on developing a course for Speaking and Listening in Health-Care Settings for ESL nursing students,



on the Minneapolis campus of the College of St. Catherine in the United States, based on their finding that oral communication is the most difficult skill for those ESL nursing students either in their study or in their future career. The purpose of this program was to promote the educational achievement in the degree nursing program by elevating English communicative competence through designing a Speaking and Listening course in the health-care communication context.

In order to do that, a needs analysis was first conducted by Bosher and Smalkoski (2002) based on the needs analysis theories of Dudley-Evans and St John (1998), Hutchinson and Waters (1987) and West (1994). Through interviews, observations and questionnaires, the needs analysis was categorised into three types:

1) objective needs (necessities), 2) subjective needs (wants) and 3) learning needs for health-care communication.

The analysed needs were then identified and incorporated into the situational or functional topics appropriate to the target context. The results from the needs analysis revealed that the greatest difficulty of the ESL nursing learners, being the oral communication with clients and colleagues in the clinical setting, were reflected in four major areas: 1) assertiveness skills, 2) therapeutic communication, 3) information gathering techniques and 4) role of the culture in health-care communication.

A syllabus for a Speaking and Listening course was tailored based on the needs analysis and the students' English proficiency test scores. Course content, pedagogical instructions and materials were developed. To promote the ESL nursing students as active learners in the speaking and listening class, authentic resources and videotapes in health-care communication and teaching methods such as role play were used.

Orsi and Orsi (2002) provided a thorough description of the design of an “in-house” ESP program for a small group of engineering practitioners, aged 30-55, working in a Spanish brewery. The main objective of this program was to prepare them for an intensive professional training program in the Netherlands where only English is used as the instructional medium. Needs analysis and task analysis were investigated, based on the theory of Johns and Dudley-Evans (1991) which focussed on exploring the genuine learning target situations. The needs and tasks were gathered through needs analysis and task analysis in which they utilised three research instruments:

1) a placement test – a language proficiency evaluation, 2) an interview – to identify specific, workrelated needs and 3) a questionnaire.

The result indicated that the urgent English language needs of the learners were listening and speaking skills, including vocabulary building in the brewery’s industrial setting. An integrative analysis between the needs obtained, and the discussion with all stakeholders engaged, resulted in the design of a 50-hour ESP course. The teaching resources were mainly tailored around a videotape regarding beer manufacturing.

Riemer (2002) highlighted the concept of balancing skills in ESP program design through integrating the learner’s needs on technical knowledge and his or her communication skills demanded in his or her future career. The purpose of the ESP course was to develop their technical knowledge and communication skills through their English language training. Reimer holds that oral communication is a demanded and trainable skill. Experiential methods, such as class projects for presentation, peer

review, role-play, videos and internet experience, have generally proved very effective methods in developing oral communication skills.

In short, developing oral communication competence of ESP learners is the greatest requirement in both educational and workplace environments. The level of English and language communication skills required may vary depending on the areas of work responsibilities and the level of positions of the engineers.

### **3.4. Integrating Multi-Skills in ESP Syllabus Design**

A lot of studies have found that all the skills involved in English language communication are mostly integrative in making actual communication happen, including listening, speaking, reading and writing skills, as well as grammatical and technical knowledge, and the relevant body of vocabulary. Course designers are expected to exercise the principle of balancing skills in the practice.

An early study by Huerta, Ibanez and Kaulen (1986) aimed to develop a four-stage ESP program, comprising Levels 1-4, for undergraduate chemistry students of the Faculty of Chemistry of the Catholic University in Santiago in Chile, while taking into account at that time both the faculty's rising awareness of the importance of English in the students' future careers and the motivation of students towards English speaking in real life contexts.

A needs analysis procedure was conducted with the cooperation of specialist advisors from the Faculty of Chemistry and an outside ESP team. Language needs from two groups of participants, i.e., teachers and students, were assessed through three

instruments: interviews, questionnaires and checklists. The research results indicated that both teachers and students believed that enhancing reading skills was the main goal, but students also added that ability in oral communication appeared to be another required skill. The most frequent difficulties the students experienced were understanding technical vocabulary, comprehending complex ideas in a text, having insufficient grammatical knowledge, and word order. The language skills required were technical reading, listening comprehension, technical writing and oral communication.

Based on the needs analysis, a speaking and listening course in health care settings was developed focusing on both hard-skills (language skills used in profession communication) and soft-skills (language skills used in social or real life communication). Teaching resources were from a set of texts from textbooks and authentic materials. Role plays were used as motivated in-class activities.

In the study interested in a written business communication courses for non-native English speaking learners in Finland, Louhiala-Salminen (1996) examined the demand for English business communication discourse in non-native English speaking contexts. The research participants were three groups of Finnish business people in different organisational positions and in varied business areas: 1) business graduates, 2) graduate engineers and 3) executive secretaries. Two methods were employed in the data collection: a questionnaire and an interview.

The resulting analysis revealed that English was frequently used. Workplace English seems to be an essential part of their professional competence. The proportion of oral and written language skills was equal: 50:50. The discourses most frequently used in written English were in: 1) exchanging of written messages (letters, faxes,

telexes, and email), 2) writing reports and 3) reading professional journals and other publications.

The common means used in sending the messages were: 1) telefax (48%), 2) mail (27%) and 3) email (9%) respectively.

The characteristics of language required in their business messages were: 1) less formality, 2) more everyday language ,more spoken language and 3) straight to the point, and efficiency.

To explore aspects of the English communication used in a multinational corporation between its head office in Britain and its subsidiaries in the Netherlands, Nickerson's (1998) study investigated how the corporate culture influenced the written communication forms and the English communication skills of non-native Dutch employees in the subsidiaries. The results indicated that the corporate culture directly affected the written forms of English the employees used in their daily reports to head office in Britain. Moreover, the findings indicated that sufficient competence in written English of the Dutch applicants was a key requirement in the recruitment process.

Zhu (2004) has done a typical study investigating major types of writing assignments and examines the writing skills required to perform the major business genres in graduate and postgraduate business courses in the College of Business at a University in the United States. Data were drawn from:

1) 95 course syllabi and 242 writing assignment handouts from these syllabi, 2) 12 student writing samples and 3) six interviews with teachers in the business faculty.

She proposes three types of assignments and two main genre types involved in writing assignments. The three popular types of assignments are: 1) case study, 2) article/book report and 3) business report whereas the two main genre types involve 1) general academic genres and 2) discipline-specific genres.

General academic genres involve genres commonly used which are the book/article report and critique, the reflection paper and the library research paper; whereas specific business genres included case analysis, business report, business proposal, design report, business letter and memo. Furthermore, the discipline-specific genres were particularly focused on problem-solving types which could either assimilate learners into meaningful world business or foster them to employ various problem-solving tools and information sources. In addition, this

learning experience can develop learners' crucial skills, that is to say, strong analytical, problem-solving, persuasive rhetorical and teamwork.

Although the oral communication competence presents itself as the skill in biggest demand, in real-life communication context, the four skills (listening, speaking, reading and writing) are usually integrated. Sufficient vocabulary items and grammatical knowledge are, as well, reported to be required in producing accurate and appropriate utterances or messages.

### **3.5. Incorporating Multiple Approaches into ESP Syllabus Design:**

In order to design an ESP program that could successfully accommodate the genuine needs of language learners, research studies have identified more than one

approach are often combined to characterise the design. These approaches could be, for example, topic-based, notional-functional and content-based.

About two decades ago, Jones (1991) proposed an integrated model for ESP syllabus design for engineering practitioners of France Telecom. She conducted a needs analysis of the global communication needs of 400 engineering practitioners of France Telecom by integrating the statistical technique of Principle Component Analysis (PCA) into the design of a topic-based ESP syllabus. The global communication needs were gathered through a questionnaire and analysed and categorised into job-related speech events (discourse level) by the statistical technique. The speech events then were sub-grouped into teaching levels, macro-topics, sub-topics, tasks and functions respectively by ESP course designers. The results analysed by the PCA revealed four main speech events connected to the Telecom engineers' language communication: 1) describing equipment and operations, 2) describing the state of advancement of a project, 3) describing day-to-day running of a project (on-the-job training) and 4) evaluating causes/consequences and describing action to be taken.

The four speech events were later subcategorised into four related macro-topics (Systems, Construction Projects, Operations and Trouble-Shooting respectively). Each macro-topic was split into its sub-topics. Tasks and activities were constructed around each sub-topic in the actual teaching.

In a study to address the needs for both oral and written language of low literacy and unskilled US labourers in Chicago, Garcia (2002) designed an ESP learner-centred program for the workers, who were mostly low in literacy competency, with an average of eight years' schooling. This course employed a combination of four approaches to

syllabus design: 1) communicative, 2) notional-functional, 3) content-based and 4) task-based.

Through this design, the workers were encouraged to participate actively in the classroom. Role plays, dialogues and several real materials from the workplace were cooperatively engaged in the classroom instruction so as to meet the workplace communication demands and to promote active learners in classroom participation.

Prior to this syllabus, Garcia (2002) conducted a needs analysis and task analysis as the first step. The analyses were conducted through four methods: 1) factory tours, 2) interviews with workers, employers and unions, 3) on-the job observations and 4) review of company forms, training manuals and brochures.

This needs analysis determined what approach could be applicable and appropriate for designing a syllabus for this particular group of learners.

Orsi and Orsi (2002) designed an “in-house” ESP program for a small group of engineering practitioners for a Spanish brewery. There were five pedagogical theories or approaches involved in the design: 1) collaborative learning, 2) learner-centred, 3) ESP theory based on Hutchinson and Waters (1987) the focus of which was around specific needs of a particular group of learners, 4) making use of learners’ background knowledge and 5) comprehensible input proposed by Krashen (1981).

The combination of approaches in the design was believed to be a useful method to develop vocabulary and language skills. The authors claim the success of the designed model resulted from its collaborative, learner-centred nature. Authentic and attractive teaching resources are produced through the combining of learners’



professional knowledge and their English learning needs. The dynamic learning atmosphere promotes interaction between teacher and learners during the learning process – learners share their professional experience, beer manufacturing, while teachers share their English experience.

Cowling (2007) is another typical recent example of employing numerous approaches of syllabus design in planning the program. He has tailored a package for business English communication consisting of nine ESP courses for new-entry employees who are in their first three-year employment at Mitsubishi Heavy Industries (MHI) in Japan. Based on the results of the needs analysis, a package was designed, which consists of three days each time, three times a year, for a total of three years. Hence, all new employees have to complete a total of twenty-seven days' intensive English course within their first three years of working at the company. This new package is composed of four elements: 1) nine areas of study relating to the learners' prospective work, 2) communication skills, 3) issues of cultural differences in communication and 4) realistic/authentic language learning experience.

The syllabus was then developed through the combination of a content-based syllabus, a notional-functional syllabus and a task-based approach. The first three courses for the first year are focused on a notional-functional syllabus whereas the second three for the same year emphasised the content and the last three were focused on the taskbased approach. He emphasised that task-based activities are not suitable for low-level students.

Students with limited English ability found it difficult to participate in task-based activities. Rather, role plays, information-gap exercises and plays and skits can promote

better communication ability for low-level students. Cultural issues were gradually interwoven into the whole program. Videotape is used as an input source while pair and group tasks/activities, discussion, presentations and role plays are utilised as teaching activities throughout the English business communication package .

Friedenberg et al. (2003) emphasised the importance of incorporating all areas of communicative competence into the program design. They presented an inclusive and practical set of guidelines for TESOL service providers or language practitioners involved in workplace language training. It aims at accommodating beneficial orientation for either the language service providers or the client organisation. They highlight the discrepancy between English for Occupational Purposes (EOP) and general ELT programs where the ELT syllabus is mostly focused on general language acquisition whilst an ESP/EOP one is built on more specific and definable needs of language learners. EOP courses are specifically based on knowledge of the workplace because participants have clear, often urgent work-related needs and goals. They involve much more than memorisation of long lists of technical terminology. It is not learning about the task but learning how to do the task in the target language. Therefore, designing a quality workplace language program for adult learners requires consideration of all areas of communicative competence to fill up the language gaps of the employees. They highlight needs assessment as the key issue in the design of English for Occupational Purposes specialty training, where as it specifies exactly what the learner has to do in the target language and employs actual workplace texts and tasks to teach it. In the syllabus design, they suggest three popular theories of second language learning and teaching focused on the ESP syllabus design: 1) language

acquisition, particularly for adult learners, 2) communicative competence and 3) task-based instruction.

It has generally been reported that combining teaching approaches could strengthen the quality and efficiency of ESP program design. By providing English educators various alternatives, an integrative model can tailor appropriate programs that could foster the learners to learn and reach their authentic communicative goals.

### **3.6. ESP students wants and problems:**

Siriwong (1984) conducted a survey of the needs, wants, expectations, and problems for the use of English of nursing students at Mahidol University with four parties: the nursing student group, the nurse group, the teaching group, and the co-ordinator group. He also let them express and suggest their ideas in aspects of curriculum and learning and teaching English. The results showed that there were needs, wants, and expectations for the use of English of each group of people in all four skills. The problems found by the nurse group mostly involved listening skills and speaking skills. The teacher group involved writing skills and the co-ordinator group involved all four skills. The research indicated that each part of English curriculum had some serious problems and needed improvement.

Wanasiree (1985) surveyed the English language needs and problems as well as the types of preferred English courses from the opinions of medical graduate students at Ramathibodi Hospital, Mahidol University. The results indicated that the learner needs were mostly in reading and writing skills while their problems were primarily in listening and speaking. These medical graduate students wanted English classes to be

provided in the first year of study with an emphasis on listening and speaking skills. The content they wanted would cover medical English and general English.

Chirapan (1987) investigated graduate students' needs and problems in the academic use of English, their wants, and their subject-specific instructors' expectations concerning the prospective English program for graduate students at the Faculty of Science, Mahidol University. The results indicated, in extent of use, that reading ranked first, followed by writing and listening, and speaking came last. In general, speaking and writing skills were considered the worst skills of students. With regard to wants and expectations, students usually preferred the aural-oral skills, whereas their instructors demanded skills and activities which were more likely to be relevant to the needs in the target situation.

Uraisakul (1988) studied the problems, wants, and needs in the learning and using of English in undergraduate computer students at the Faculty of Science, the University of the Thai Chamber of Commerce. The results showed that students wanted speaking to be greatly emphasized. Regarding the need for using the four skills in the learning of computer subjects, students reported that they had a very great need for reading, a nearly as great need for writing and a moderate need for both listening and speaking.

Khemateerakul (1996) explored needs and problems of students using English in the international program of Bangkok University, their wants regarding which skills ought to be emphasized in the intensive English course of the International Program, and other factors including time, instruction, class size, and evaluation. The results showed that, while all of the respondents perceived all skills as urgent, listening was needed the most. All English skills were perceived as moderate problems by students

while writing and speaking skills were perceived as the students' greatest problems by instructors. Both students and instructors wanted the listening skill to be emphasized in the intensive English course.

Sucompa (1998) investigated the needs and problems of English language for use in the tourism industry in Thailand and at Rajamangala Institute of Technology (RIT) campuses to determine content, method, and duration of the course for "Technical English for Tourism" for Higher Certificate level students at RIT. Four sample groups were investigated: tourism workers, employers and owners of travel agencies, RIT English language teachers, and RIT tourism students. The results revealed that tourism workers needed reading, speaking, and listening skills more than writing and translation skills. Employers and owners of travel agencies viewed speaking as the most needed skill for the tourism workers. RIT English teachers believed that speaking was the most needed skill for tourism students; reading was considered to be their greatest problem. RIT tourism students regarded translation skills as the most important, and they believed that native teachers were greatly needed. All four groups wanted content, methodology, and learning periods to develop.

Suwaroporn (1998) explored needs and problems in English language use of nurses in order to develop a special English course for further education of the nursing staffs in Thai hospitals. Information was required regarding needs, problems, and wants in terms of content, time, and the use of English in language development courses. The results indicated that all nursing staff wanted English language courses. They had a strong need of reading, especially reading texts, journals, and any document related to the medical and nursing areas. They articulated a common need in writing, especially writing laboratory investigation reports in individual nursing care plans and writing

reports about patients' physical examinations in general. However, they perceived a serious problem in speaking.

Inthapthim (2000) studied the needs and problems of MBA students at Naresuan University for academic English. This study also sought to determine their wants for the English courses. The results showed that reading was needed the most, followed by listening and writing, with speaking being the last. The students related many problems with speaking skills and wanted listening and speaking the most in the English courses.

After reviewing the above mentioned studies , it is noticed that the most important skills in ESP curricula according to the ESP learners are speaking and writing , so the ESP learners want to promote their speaking and writing abilities because they found difficulties and problems in these two skills.

### **3.7. English for specific purposes in the Arab World:**

Alastal and Shuib (2012) in their study sought to identify the academic English language target needs of the undergraduates of the Faculty of Applied Science (FAS) at Al-Aqsa University (AU). Their study surveyed the perceptions of 180 FAS students at AU about their present academic English language proficiency, the academic English language skills necessary for their academic study, and the English language skills they desire to learn. To collect the data, an adapted questionnaire was used.

The findings of the study showed that the English language is largely used in the process of learning/teaching at the FAS of AU. The students evaluated themselves as

average in academic English writing and reading comprehension skills and as weak in academic English speaking and listening comprehension skills. The results also indicated that, according to students' perceptions, the most important academic English language skill for the FAS students' study is reading comprehension, followed by listening comprehension, and then writing. In addition, the most important academic English language subskills for the FAS students' study are as follows: reading textbooks; reading to understand text and exam questions; following and understanding class lectures; understanding lectures in order to take notes; writing class notes, and writing test and exam answers. Finally, FAS students at AU wanted to improve their ability in the four English language skills, and they most desired to improve their speaking skills, especially how to discuss the materials of lectures.

In Yemen, Al-Tamimi and Shuib (2010) tried in their study to identify the students' perceptions of the frequency of English language skills used, the importance of these skills, their ability in performing the skills, the areas of language use that they need training/teaching in, and their preferences for the English language course. A total of 81 third, fourth, and final-year petroleum undergraduates in the academic year 2006-2007 were identified and approached for the process of NA. A questionnaire was used for data collection.

Their study indicated that the four English language skills were important for the students' study and that the students were lacking proficiency in all four English language skills, with speaking as the weakest. It also showed that the students wanted to improve their speaking skill the most.

Rajabi and Azarpour ( 2011 ) in their study investigated the academic needs of the Business Administration students in the use of English for Specific Purposes (ESP) at Malayer Islamic Azad University. A total of 45 male senior students majoring in Business Administration were selected through random sampling. They were taking ESP as a compulsory course during their university studies at Malayer IAU. Besides, two ESP instructors who were teaching English to the subjects were interviewed to investigate their ideas about the questions of the study. The findings revealed that reading and writing skills have great importance in classroom practice while speaking got high priority in success in future jobs of these students.

Al-Khasawneh ( 2009 ) in his study aimed at investigating the academic writing problems of the Arab postgraduate students of the College of Business at Universiti Utara Malaysia and to provide solutions to these problems. For this purpose, four research questions were posed and the answers to these questions were provided and discussed. The data for the study were collected via (face-to-face) interviews. The informants of this study were 10 Arab postgraduate students from the College of Business at Universiti Utara Malaysia for the academic year 2008-2009. The findings of the study revealed that the students faced problems in relation to vocabulary register, organization of ideas, grammar, spelling, and referencing.

In Kuwait, Basturkmen (1998) investigated ,through a questionnaire, the English language needs of the undergraduates in the College of Petroleum and Engineering at Kuwait University. His study showed that the English language subskills of reading textbooks, writing lab reports/lab assignments, following lectures, listening to



instructions for labs and assignments, and note-taking in lectures were important for the students' study.

In Lebanon, Bacha & Bahous (2008) explored the English writing needs of the students of the Business Department at the Lebanese American University. Their study indicated that the students need to improve their English writing subskills of note-taking in class, essay assignments, research papers, and note-taking from the Internet.

Zughoul and Hussein's (1985) study was conducted on the Jordanian students of all the six faculties at Yarmouk University. Their study indicated ,after conducting a questionnaire as the main research tool,that English was used to a large extent, especially in reading, writing, and listening activities and that all the four English language skills were necessary for success at the university level. Their study also revealed that the most important English subskills for the students' study were listening to lectures in order to take notes, understanding and following lectures, reading textbooks, and writing class notes.

Bacha's (2003) study was conducted on the Lebanese undergraduates of the four main schools at the Lebanese American University. Her study indicated , through a questionnaire, that all of the four main English language skills were necessary for the students' academic study and professional work. It also showed that the most important tasks for the students' study were listening to class discussions, participating in class discussions, reading required materials, writing essays, and writing summaries. The findings indicate that students perceive their writing skills as more satisfactory than faculty do, differ on what writing tasks are necessary, but agree that both the business

and English faculty should cooperate in the teaching of English. Implications are drawn for ongoing cooperation in the teaching/learning of writing between the business discipline and the English as a Foreign language classroom.

In Iraq, Salwa Adnan (2012) in her Study attempted to focus on the importance of considering students needs and wants from the ESP course that is taught to administration student at the College of Administration and Economics University of Basra . her study was done by Conduction a needs analysis study to enable the teacher to choose the appropriate techniques and methods of teaching this course . Then the study shed light on the reality of ESP classes , the difficulties and the need to conduct a NA study every two or three years to cope with the changing needs of the students throughout the years of study that can help them in their future career . Such study will also satisfy the teacher by the results s/he gets if s/he made use of this technique .

The study discussed NA done fourth year Administration students and gave the results and certain recommendations for both the teacher and the students , such as:

1. Teachers of ESP are advised to conduct a Needs Analysis process through which they can design a course and take into account the changing needs, wants, and lacks of their learners.
- 2.To motivate the learners, the teacher consequently must adopt a learner centered activities where the learners can participate actively in their own learning.
3. The learning institution (the college or university) can give the teachers the chance to change the course material in a way that fosters their students' learning with a regular supervision of the department or college to arrive at good results. Naturally, the teachers

must arrive at new and promising results depending on the ongoing NA that is documented and made every two or three years for instance.

In an Egyptian College of Technology, a research project was performed by Pritchard and Nasr (2004) to develop materials to help improve third-level engineering students' reading performance. As a first step in the project, a NA was carried out to find what the undergraduates and their teachers might perceive as major required reading skills. This list of skills was then used as the basis for developing a reading improvement programme. To evaluate the effectiveness of the programme, it was tested with a group of 66 students. Results of the experimental study revealed that the programme helped improve the subjects' performance in reading. Regarding the ESP teachers' role in the engineering department, the findings emphasised that instead of being the primary information providers, ESP teachers should assimilate subject concepts from learners and negotiate meaning with them.

### **3.7. Commentary on the previous studies:**

After reading the previous studies one can see that there have been numerous research studies on the needs of engineering professionals around their English communication at workplace. Those studies suggest that an engineering English course should address both the necessary technical skills, that is, the solid theoretical knowledge included in the engineering sciences and professional courses, and the non-technical skills, including those involving knowledge of business and management practice. Contemporary engineers have to be ready to go outside the traditional parameters of their technical specialty to maintain expertise and career mobility

(Yin,1988; Evans,1999a,1999b; Perez,1999; Orsi & Orsi,2002; Leepatanapan, 2005 ). This requires high level of non-technical skills on top of those technical ones. One highly-rated set of non-technical skills are communication skills. (Yin,1988;Pholsward, 1993;Shea,1997;Leepatanapan, 1997;Evans, 1999a, 1999b; Perez, 1999; Reimer, 2002).

The importance of integrating communication skills with the technological knowledge has been accepted among engineering educators. Various studies suggest that educational institutions should provide instruction in theory, experimentation and practice with particular reference to the future careers of students (Yin, 1988; Leepatanapan, 1997; Riemer, 2002).

Far away the oral communication skill, which is considered the most important one in the workplace, there are studies that emphasized on the importance of the reading skill ( Huerta et al , 1986, Basturkmen, 1998; Friedenber g et al, 2003) which is considered as an input tool by which students can acquire knowledge at home, or study ESP courses. In contrast , the writing skill is considered as an output tool via which one can show his/her product. Talking about this skill, several research studies emphasized on its importance where ESP students need it in writing their reports, taking notes or even answering exam questions. ( Garcia,202; Zhu, 2004; Bach&Bahous,2008;Al-Khasawneh,2009 ).

Talking about the Arab World, the studies that were conducted there showed the weakness of Arab ESP students in all English skills. ( Al-Khasawneh, 2009; Alastal&Shuib,2010; Al-Tamimi&Shuib,2010 ), so one can see many studied called for emphasizing on the four skills either in the Arab World or abroad. ( Zughoul

&Hussein,1985; Bacha, 2003; Friedenber g et al, 2003; Cowling, 2007;Al-Tamimi&Shuib,2010; Alastal,2010; Rajabi& Azarpour,2011)

### **3.7. SUMMARY:**

Globalisation is the process that transforms the former world being composed of nations surrounded by certain natural geographical borders to the contemporary world with virtual seamlessness. Through the globalised phenomenon, the large number of people, technologies, currencies and ideas swiftly interconnect across the entire world via the advent of amazing influential communication technologies. Individuals and nations directly and indirectly share social, cultural, political and economic effects of risk and trust resulting from this process.

Through this process, English has continued accelerating itself, after the period of British and American colonisation, as the world lingua franca or global language, and has become a major mechanism, that is to say, a basic skill in international business communication. Proficiency to communicate in English appears to be an effective facilitator, a powerful source of success or a challenge for global engineers. Adequate level of English proficiency in the four skills is a must for global engineers. Proficiency in oral communication, in particular, is believed to be an urgent demand and the greatest difficulty global engineers experience in working with their multi-national engineering colleagues.

To develop an effective ESP program that could promote global engineers as proficient English communicators in business communication, a needs analysis is generally taken as the first necessary step. With the comprehensive needs obtained,

program designers/teachers could develop and direct the program that could specifically serve the genuine target needs and learning needs of their learners. In the design, an eclectic approach, or an integrative approach, is recommended. The three frequently teaching approaches which have been found constructive are the communicative and the task-based and learner/worker-centred approaches. The teaching content encompass both engineering knowledge and communication skills, as well as working in teams and problemsolving skills.

In addition, the capability to be autonomous English learners has been found fruitful to be integrated into the ESP program. Being trained to be autonomous learners would only not be beneficial for the engineers to become life-long learning workforces of the countries, but also for the increase of the country's potential and sustainability in performing business and trade in the globalised environment. So, as a result, the researchers started to investigate the obstacles that may encounter the students in ESP courses and put some solutions through their recommendations as one can see in the previous studies. The present study made use of these previous studies in determining the appropriate research tool and getting a general outlook about the ESP obstacles that may encounter the ESP learner in this world in general and in Arab world in particular. Depending on these obstacles and difficulties the researcher built a diagnostic test as the main research tool.

Although there are many similarities between this study and the previous ones, especially those in the Arab world, in the difficulties, results and recommendations, one can see that the present study could be one of the first studies conducted on engineering students in Palestine.

**CHAPTER IV**

**THE METHODOLOGY**

## IV

### **The Methodology**

#### **4.1. Introduction:**

This chapter contains the procedures followed throughout the study. It introduces a complete description of the methodology of the study , the community , the sample , the instrumentations ,the pilot study, a description of using concept mapping in the study and the research design , moreover , it introduces the statistical treatment for the study findings .

#### **4.1. The methodology of the study:**

The study adopted the descriptive analytical approach which tries, during it, to describe the study phenomena .

#### **4.2. Research variables:**

**4.2.1. Independent variables:** Gender and Accumulative average.

**4.2.2. Dependent variables:** The difficulties of the English course for engineering.

#### **4.3. The study population:**

The population of the study consisted all students at the Islamic university of Gaza ( 2010 – 2011) . The population of the study was ( 431 ) students.



#### 4.3.1. The pilot study:

The pilot study was conducted on 30 students ,of the first level in the faculty of engineering in both genders (females and males), as a pilot sample, and an open questionnaire was distributed among them to determine the range of the difficulties in order to build the main study tool ( diagnostic test ). The pilot study aims to sure in the reliability and the stability of the instrument of the study.

#### 4.3.2.The sample of the study:

The sample of the study consisted of (210) students in the first level in faculty of engineering ,they represent (48.7 %) of the study population and they were randomly chosen .

**Table (1 )**

#### **The distribution of the sample according to gender**

Gender	No.	%
Male	147	70.00
Female	63	30.00
Total	210	100

**Table (2)**

**The distribution of the sample according to accumulative average**

<b>Age</b>	<b>No.</b>	<b>%</b>
Excellent(90-100)	33	15.71
Very good(80-89)	114	54.29
Good(70-79)	53	25.24
Pass(60-69)	10	4.76
Total	210	100

**4.4. The instrumentations**

Open questionnaire was used to build difficulties and to form a diagnostic test which is considered as the main instrument of the study, to get data and information. So, the researcher built the difficulties which facing students in studying English course for engineering at the Islamic university of Gaza in regard to the following points :

#### **4.4.1. The validity of the diagnostic test :**

Valid test is the test that measures what it is designed to measure. The study used the referee validity and the internal consistency validity .

##### **(A) The referee validity**

The test was introduced to some expert linguists in the Islamic university of Gaza. The items of the test were modified according to their recommendations.

##### **(B) The internal consistency validity**

The internal consistency validity indicates the correlation of the degree of each item with the total average of the test . It also indicates the correlation of the average of each scope with the total average. This validity was calculated by using Person Formula.

According to the tables (3)- (4)- (5)-the coefficient correlation of each item within its scope is significant at levels (0.01) and (0.05).

Table (3) shows the correlation coefficient of each scope with the whole test. According to the following tables , it can be concluded that the test is highly consistent and valid as a tool for the study

**Table (3)**

**Correlation coefficient of knowledge items**

<b>Items</b>	<b>Pearson correlation</b>	<b>Sig.</b>	<b>Items</b>	<b>Pearson correlation</b>	<b>Sig.</b>
1	0.637	0.000	16	0.497	0.005
2	0.469	0.009	17	0.458	0.011
3	0.681	0.000	18	0.440	0.015
4	0.589	0.001	19	0.415	0.023
5	0.705	0.000	20	0.514	0.004
6	0.635	0.000	21	0.584	0.001
7	0.463	0.010	22	0.479	0.007
8	0.673	0.000	23	0.370	0.044
9	0.623	0.000	24	0.495	0.005
10	0.492	0.006	25	0.495	0.005
11	0.458	0.011	26	0.469	0.009
12	0.781	0.000	27	0.519	0.003
13	0.473	0.008	28	0.568	0.001

Items	Pearson correlation	Sig.	Items	Pearson correlation	Sig.
14	0.510	0.004	29	0.368	0.045
15	0.378	0.040	30	0.461	0.010

“r ” table value at (28) d f. at (0.05) sig. level equal 0.361

“r ” table value at (28) d f. at (0.01) sig. level equal 0.463

**Table (4)**

Correlation coefficient of knowledge items

Items	Pearson correlation	Sig.	Items	Pearson correlation	Sig.
1	0.385	0.036	16	0.584	0.001
2	0.728	0.000	17	0.506	0.004
3	0.553	0.002	18	0.600	0.000
4	0.758	0.000	19	0.675	0.000
5	0.427	0.019	20	0.429	0.018
6	0.408	0.025	21	0.788	0.000
7	0.392	0.032	22	0.686	0.000
8	0.712	0.000	23	0.488	0.006
9	0.713	0.000	24	0.644	0.000

Items	Pearson correlation	Sig.	Items	Pearson correlation	Sig.
10	0.683	0.000	25	0.784	0.000
11	0.640	0.000	26	0.747	0.000
12	0.640	0.000	27	0.728	0.000
13	0.581	0.001	28	0.506	0.004
14	0.465	0.010	29	0.743	0.000
15	0.401	0.028	30	0.641	0.000

“r” table value at (28) d f. at (0.05) sig. level equal 0.361

“r” table value at (28) d f. at (0.01) sig. level equal 0.463

The results of the previous tables show that the value of these items was suitable and highly consistent and valid for conducting this study. The previous tables show that all the items are statistically significant at (0.01, 0.05) which shows a high internal consistency of the test and reinforces the validity of the test.

**Table (5)**

Correlation coefficient of the scopes with the test

Scope	Total	Vocabulary	Grammar
Vocabulary	0.713	1	
Grammar	0.846	0.429	1

“r” table value at (28) d f. at (0.05) sig. level equal 0.361

“r” table value at (28) d f. at (0.01) sig. level equal 0.463

The results of the previous table show that the value of this relation correlation between the two scopes with the total degree of the test and with others is significant and that mean the test was suitable and highly consistent and valid for conducting this study.

#### 4.3.2. Reliability of the diagnostic test

The test is reliable when it gives the same results if it is reapplied in the same conditions The reliability of the test was measured by Alpha Cronbach and the Spilt-half techniques .

According to Tables (6) and (7) , the test is proved to be reliable . Alpha Cronbach coefficient is (0.931) and the Spilt- half coefficient is (0.614)

**Table (6)**

#### **Reliability coefficient by Alpha Cronbach Technique**

Scope	Total	Correlation
Vocabulary	30	0.908
Grammar	30	0.939
<b>Total</b>	60	0.931

**Table (7)**

**Reliability coefficient by Spilt –half Technique**

<b>SCOPE</b>	<b>TOTAL</b>	<b>BEFORE</b>	<b>AFTER</b>
<b>Vocabulary</b>	30	0.607	0.757
<b>Grammar</b>	30	0.875	0.933
<b>Total</b>	60	0.443	0.614

**4.4. Difficulty Coefficient:**

That's to mean the percentage of the failing student to the total student who answered the test, we can calculate this from the following equation:

$$\text{Difficulty Coefficient} = \frac{\text{No. of failing student}}{\text{the total student who answered the test}} \times 100$$

Table (8 ) shows the difficulty coefficient for each items of the test:



**Table (8 )**

**Difficulty coefficient for each items of the test**

No.	Difficulty coefficient	No.	Difficulty coefficient
1	0.50	31	0.44
2	0.56	32	0.69
3	0.63	33	0.44
4	0.25	34	0.69
5	0.44	35	0.56
6	0.56	36	0.44
7	0.56	37	0.56
8	0.44	38	0.69
9	0.63	39	0.25
10	0.56	40	0.31
11	0.44	41	0.56
12	0.31	42	0.50
13	0.31	43	0.56
14	0.50	44	0.63

No.	Difficulty coefficient	No.	Difficulty coefficient
15	0.56	45	0.56
16	0.31	46	0.69
17	0.38	47	0.56
18	0.31	48	0.69
19	0.31	49	0.31
20	0.56	50	0.38
21	0.31	51	0.31
22	0.44	52	0.44
23	0.38	53	0.50
24	0.31	54	0.44
25	0.25	55	0.38
26	0.38	56	0.56
27	0.31	57	0.56
28	0.25	58	0.31
29	0.31	59	0.44
30	0.56	60	0.31
<b>Total difficulty coefficient</b>			<b>0.46</b>

Table (9 ) shows that the difficulty coefficient wobble between (0.25 – 0.69) with total average (0.46), that mean each of item acceptable or in the normal limit of difficulties according view of point of assessment and evaluation specialist.

#### **4.5. Discrimination coefficient:**

That's mean the test ability to differentiate between the high achievers students and the low achievers.

$$\text{Discrimination Coefficient} = \frac{\text{No. of the student who has the correct answer from the high achievers} - \text{No. of the student who has the correct answer from the low achievers}}{\text{No. of high achievers students} - \text{No. of low achievers students}}$$

Table (9 ) show the discrimination coefficient for each items of the test:

**Table (9 )**

#### **Discrimination coefficient for each items of the test**

No.	Discrimination coefficient	No.	Discrimination coefficient
1	0.50	31	0.38
2	0.38	32	0.38
3	0.50	33	0.63
4	0.50	34	0.38
5	0.38	35	0.63

No.	Discrimination coefficient	No.	Discrimination coefficient
6	0.63	36	0.38
7	0.38	37	0.63
8	0.63	38	0.63
9	0.50	39	0.50
10	0.63	40	0.38
11	0.38	41	0.63
12	0.63	42	0.50
13	0.63	43	0.63
14	0.50	44	0.50
15	0.63	45	0.63
16	0.63	46	0.63
17	0.25	47	0.63
18	0.63	48	0.38
19	0.63	49	0.63
20	0.38	50	0.50
21	0.63	51	0.63

No.	Discrimination coefficient	No.	Discrimination coefficient
22	0.63	52	0.38
23	0.25	53	0.50
24	0.63	54	0.38
25	0.50	55	0.25
26	0.50	56	0.38
27	0.38	57	0.63
28	0.50	58	0.63
29	0.63	59	0.38
30	0.38	60	0.63
<b>Total discrimination coefficient</b>			0.51

Table (9 ) shows that the discrimination coefficient wobble between (0.25 – 0.63) with total average (0.51). That means each item is acceptable or in the normal limit of discrimination according view of point of assessment and evaluation specialist.

## **4.6. The statistical analysis**

1. The data was collected and computed by using (SPSS) Statistical Package for social Sciences Spearman correlation, Alpha Cronbach Technique and Spilt – half Technique were used to confirm the test validity and reliability.
2. Frequencies and percentage.
3. T.test.
4. One Way ANOVA.
5. Scheffe post test.

## **4.7. The research procedures:**

### **4.7.1. Building the open questionnaire:**

Before conducting the main tool of the study which is the diagnostic test, the researcher , after consulting with some experts, conducted an open questionnaire in order to determine the difficulties that encounter the engineering students studying the English course for engineering course.

The open questionnaire was just one question as follow:

List the difficulties that encounter you in studying the English course for engineering.

### **4.7.2. Distributing the open questionnaire:**

The open questionnaire was distributed among a pilot sample of 30 students of both genders in the first level of faculty of engineering students.

#### **4.7.3. Developing the diagnostic test:**

After determining the difficulties that encountering engineering students in studying the English course for engineering by the open questionnaire, the researcher developed a diagnostic test of 60 questions examine the students understanding of the English for engineering course in the light of the two main linguistic sub-skills: vocabulary and grammar.

The test was submitted to five referees, three of them are the course lecturers, and they modified some modifications that were taken into consideration in the final draft.

#### **4.7.4. Distributing the diagnostic test:**

By modifying the last diagnostic test draft, the researcher distributed the test among 210 engineering students ( 63 females and 147 males ) . This number represents the sample of the study and the whole population in the university year 2010-2011.

# **Chapter V**

## **Results of the study**



## **VI**

### **Results of the study**

#### **5.1.Introduction:**

Since the aim of the study is to determine the difficulties encountering the engineering students in studying the English course for engineering this chapter comes to shed a light on the results and the recommendations of the present study. Whereas it discusses and justifies the results of the present study, then the researcher, basing on the results and the previous studies, suggests the recommendations that could be a start point to develop English for engineering course in specific and English for specific purposes in general .

#### **5.2.The first question is:**

" What are the difficulties encountering engineering students in studying the English course for engineering at the Islamic university of Gaza " ?

To answer this question the researcher used the frequencies, the sum of responses, means, std. deviation . And the % weight and rank of each item from the open question , table (10) show that:

**Table (10 )**

**The sum of responses, means, std. deviation . And the % weight and rank of each scope from and all questionnaire**

<b>strategies</b>	<b>No. of items</b>	<b>Sum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>% weight</b>	<b>rank in the scope</b>
Vocabulary	30	4675	22.262	4.446	74.21	1
Grammar	30	2861	13.624	5.087	45.41	2
SUM	60	7536	35.886	8.368	59.81	

**From table (10 ) we can see that the most two difficulties are:**

1. The vocabulary occupied the first rank with percent weight (74.21%).
2. The Grammar occupied the second rank with percent weight (45.41%).

The researcher returns that to the lack of ESP courses especially those which focus on the academic English in the schools, besides there is a general weakness in learning vocabularies because of the theoretical classic methods that are adopted in teaching vocabularies in schools and universities , whereas the new theories discovered better methods in teaching language that focus on involving the students in real life situations to absorb the language sense directly and spontaneously.

### 5.3.The second question is:

Are there any statistically significant differences at ( $\alpha \leq 0.05$ ) in the difficulties of learning English course for engineering due to learners gender ?

To answer this question the researcher used **T.Test** as table (11) shows :

**Table (11 )**

**Means, std. div, t value, sig. value and sig. level**

variable	SEX	N	Mean	Std. Deviation	t	Sig. value	sig. level
Vocabulary	male	147	22.585	4.578	1.615	0.108	not sig
	female	63	21.508	4.056			
Grammar	male	147	13.034	5.044	2.601	0.010	sig. at 0.05
	female	63	15.000	4.958			
SUM	male	147	35.619	8.448	0.705	0.482	not sig
	female	63	36.508	8.211			

t table value at df (208) and sig. level (0.05) = 1.96

t table value at df (208) and sig. level (0.05) = 2.58

The previous table shows that computed T value is less than the critical ( $\alpha = 0.05$ ) in the vocabulary scope and the total degree in the test except grammar scope, and we can see the mean of female (15.000) more than male (13.034) in grammar scope that means the differences towards female, that either means male facing difficulties more than female in grammar.

Researcher returns that to the General Secondary Certificate admission percentage in the faculty of engineering is higher for females than males, besides the nature of the Palestinian societies impose on the females to stay home more than the males, so they are nearer to books than boys who spend much time outdoors.

#### **5.4.The third Question is:**

"Are there any statistically significant difference at ( $\alpha \leq 0.05$ ) in the difficulties of learning English course for engineering due to students accumulative average" ?

To answer this question the researcher used One Way ANOVA as table (12) shows :

**Table (12)**

**One Way ANOVA results of the accumulative average**

<b>Scope</b>	<b>Source of variance</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>f</b>	<b>Sig.</b>	<b>Sig. level</b>
Vocabulary	Between Groups	174.306	3	58.102	3.025	0.031	sig. at 0.05
	Within Groups	3956.289	206	19.205			
	Total	4130.595	209				
Grammar	Between Groups	170.880	3	56.960	2.240	0.085	not sig
	Within Groups	5238.401	206	25.429			
	Total	5409.281	209				
total	Between Groups	602.121	3	200.707	2.947	0.034	sig. at 0.05
	Within Groups	14031.136	206	68.112			
	Total	14633.257	209				

“F” table value at (3, 209) d f. at (0.05) sig. level equal 2.65

“F” table value at (3, 209) d f. at (0.01) sig. level equal 3.88

From table (13) we can see that there are statistically significant differences between the four groups in "vocabulary", and the total degree of the accumulative average, and there are no statistically significant differences between the four group in Grammar scope. This means that the difficulties are general in grammar.

To determine direction of the differences the researcher used Scheffe post test as table (13) shows:

**Table (13 )**

**Scheffe post test Matrix for know the direction of differences between fourth group in the first scope "vocabulary"**

<b>groups</b>	<b>excellent</b>	<b>very good</b>	<b>good</b>	<b>accepted</b>
<b>24.061</b>	<b>24.061</b>	<b>22.219</b>	<b>21.151</b>	<b>22.700</b>
<b>Excellent(90-100)</b> <b>24.061</b>	0			
<b>very good(80-89)</b> <b>22.219</b>	1.841	0		
<b>Good(70-79)</b> <b>21.151</b>	*2.910	1.068	0	
<b>Accepted(60-69)</b> <b>22.700</b>	1.361	0.481	1.549	0

\* sig. at (0.05)

Table (13) shows that there are statistical differences between excellent and good group in vocabulary toward excellent group, and there are no statistical differences between others group with each other.

**Table ( 14 )**

**Scheffe post test Matrix for know the direction of differences between fourth group in the total degree of the test**

<b>groups</b>	<b>excellent</b> M= 38.636	<b>very good</b> M=36.316	<b>good</b> M= 33.415	<b>accepted</b> M= 35.000
<b>excellent</b> M= 38.636	0			
<b>very good</b> M= 36.316	2.321	0		
<b>good</b> M= 33.415	*5.221	2.901	0	
<b>accepted</b> M= 35.000	3.636	1.316	1.585	0

\* sig. at (0.05)

Table (14) shows that there are statistical differences between excellent group and good group in the total degree in the test toward excellent group, and there are no statistical differences between others group with each other.

## **5.5. Recommendations**

1. The perceived needs should be translated into pedagogic terms. In other words, when designing the English language course, ESP teachers should take into consideration learners' needs by focusing on all the language skills.
2. The syllabus does not need to be revamped but had better be changed to suit students' needs. It should match what the students learn with what they will face in their academic and professional domains.
3. An elementary or a low-intermediate syllabus would be more appropriate to meet the level of proficiency of the students. As Shuib (2008) said, "students must receive comprehensible input in English; input which they can understand" (p.168).
4. The students' needs, difficulties, and motivation should be given much more attention when ESP courses are prepared and developed.
5. The duration and number of courses should be increased so that English becomes an essential course in the IUG.



## **5.6.Discussion and suggestions:**

The current emerged problems in ESP education call for practical solutions, some of which have been put forward below. First, more communications among English learners and a proper recognition of ESP education are needed. It is necessary to encourage ESP majors from different universities to communicate with EGP majors so as to give the ESP majors the publicity they deserve. The relevant institutional organizations also need to play a role in advocating ESP education and making it known by and accessible for the public. Higher level of recognition will benefit both students and the further development of ESP education.

Secondly, decision-makers in institutions of higher education should make changes in the arrangement of the curriculum. For instance, for freshmen, many of them cannot adapt well to the new environment on campus. So, basic courses can be arranged in their first academic year. The second and third year in university is the very time that undergraduates are at the top form of their academic studies. Thus specific and core courses can be arranged during this time. For senior students, they are on the springboard considering and preparing their future. It might be a wise choice to arrange fewer courses during the last year of undergraduates' university life.

Thirdly, teachers should aim at developing a more learner-centered teaching style in ESP education rather than being directed by their textbooks all the time. Robinson (1991) has pointed out that the key to ESP teaching is to understand the learners' learning purpose and urgent desire before designing curriculum and courses according to their needs. Namely, teachers should establish the "learner-centered" philosophy,

emphasizing on the demands and interests of learners so as to enhance their motivation and maximize their enthusiasm and initiative.

Last but not the least, there is a dire need to improve the teaching materials in ESP education. When selecting teaching materials, teachers should make these materials comply with national as well as international standards. An assessment process of the value of certain teaching materials might be helpful for the enhancement of teaching quality in ESP so as to ensure that the chosen materials meet the requirements of ESP learners and the actual pedagogical situation.

ESP is a relatively young academic discipline. There is no denying that the current situation of ESP education is far from satisfying. However, we cannot ignore and deny the accomplishments that ESP education has achieved. At the same time, it is good to see that even though many ESP learners are not that satisfied with the current situation of ESP education, they still believe in a positive prospect of ESP education, and have made many pertinent suggestions. It is the collected effort of ESP educators and learners, the national and international language teaching community that will ensure ESP cater to the learners' individual needs and the international community's social demands.

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# Appendices

**Appendix (I)**

**Tool of the study: Open Questionnaire**

This questionnaire is designed to diagnose the areas of difficulties that engineering students face in studying the Technical English Course for Engineering at the Islamic University of Gaza.

**Bio-data**

1. Name

(optional): \_\_\_\_\_

2. Age: \_\_\_\_\_

3. Gender: Male  Female

4. Accumulative Average:

60-64%  65-69%  70-74%  75-79%  80-84%   
85-89%  90-94%  95+%

*\*Have you ever taken any course related to English for engineering?*

Yes  No



\*ما هي الصعوبات التي واجهتها في دراستك لمساق اللغة الانجليزية الأكاديمية لطلبة الهندسة في الجامعة الإسلامية بغزة؟

\*What are the difficulties you faced in studying the Technical English Course for Engineering at the Islamic University of Gaza?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

*\*This open question is designed to diagnose the areas of difficulties that engineering students face in studying the Technical English Course for Engineering at the Islamic University of Gaza in order to contribute in building a diagnostic test for the above mentioned course.*

*Best Regards*

*The researcher*

*Appendix (II)*

**Tool of the study: Diagnostic Test**

This diagnostic test is designed to diagnose the areas of difficulties that engineering students face in studying the English for engineering course for at the Islamic University of Gaza.

**Bio-data**

5. Name

(optional): \_\_\_\_\_

6. Age: \_\_\_\_\_

7. Gender: Male  Female

8. Accumulative Average:

60-64%	<input type="checkbox"/>	65-69%	<input type="checkbox"/>	70-74%	<input type="checkbox"/>	75-79%	<input type="checkbox"/>
80-84%	<input type="checkbox"/>	85-89%	<input type="checkbox"/>	90-94%	<input type="checkbox"/>	95+%	<input type="checkbox"/>

*\*Have you ever taken any course related to English for engineering?*

Yes  No

*Best Regards*

*The researcher*







***(III) Write the appropriate terms for the following definitions.***

*Workload - workforce - material flow - cycle - requirement - applied research - clinical research - pilot study - experimentation – pure basic research*

1. \_\_\_\_\_ the movement of materials through a production system.
2. \_\_\_\_\_ something that is needed for a particular process.
3. \_\_\_\_\_ the series of activities following one another to produce a product.
4. \_\_\_\_\_ the amount of work that has to be done.
5. \_\_\_\_\_ all the people who work in a particular company.
6. \_\_\_\_\_ the study of pure scientific principles.
7. \_\_\_\_\_ looking at how scientific theory can be used in practice.
8. \_\_\_\_\_ looking at the effects of drugs or treatment on patients.
9. \_\_\_\_\_ the process of tests and trials to see what happens under different conditions.
10. \_\_\_\_\_ small-scale experiment.

**(2) Grammar**

*(IV) Each of the following sentences contains a mistake. Underline the mistakes and correct them:*

1. You needn't to enclose the invoice. It will be sent separately.

.....

2. When bacteria were found in the food plant, the government made the company to shut down production.

.....

.....

3. Children are not allowed entering this area.

.....

4. Owing a danger of falling objects, workers must wear a hard hat.

.....

5. The car is cheap but reliable and that's the result for its popularity.

.....

6. All unauthorized personnel are prohibited to entering this area.

.....

7. Only fully qualified electricians should be permitted repairing these appliances.

.....

.....

8. Deep pile foundations are capable to support a high building.

.....

9. Designers can to design complex structures using computer-aided design tools.

.....  
.....

10. Scientists are not yet able of curing cancer.

.....

**(V) Complete these sentences using the words in brackets:**

1. The system will shut down\_\_\_\_\_ There is an\_\_\_\_\_  
temperature control.

*a-autamatic/ automatically*

*b-automatically/automatic*

*c-automatical/automatically*

*d-automatically/automatical*

2. New testing methods have made the process much more\_\_\_\_\_  
.Quality control now runs more\_\_\_\_\_ .

*a-efficient/efficiently*

*b-efficiently/efficient*

*c-efficeintal/efficiently*

*d-efficiently / efficeintal*

3. Our aim is to ensure\_\_\_\_\_ operation at the plant. The  
manufacturing process should run\_\_\_\_\_

*a-smooth/smoothly*

*b-smoothly/smooth*

*c-smoothlly/smooth*

*d- smooth/smoothly*

4. Demand for electricity is\_\_\_\_\_ lower in the evening. Statistics  
show that there is a \_\_\_\_\_fall in demand after 10 p.m.

*a-general/generally*

*b- generally/general*

*c-general/generaly*

*d-generaly/general*





6. This new telephone system has been such a success.  
*a-I really regret not making a change a long time ago.*  
*b-I really regret to not make a change a long time ago.*  
*c-I really regret not make a change a long time ago.*  
*d-I really regret not to make a change a long time ago.*
7. This unit is extremely heavy.  
*a-Could you try moving it, please?*  
*b-Could you try to move it, please?*  
*c-Could you try move it, please?*  
*d-Could you try to moving it, please?*
8. Security is very important.  
*a-Don't forget changing your password regularly.*  
*b-Don't forget to change your password regularly.*  
*c-Don't forget to changing your password regularly.*  
*d-Don't forget change your password regularly.*
9. This sounds as though it could work!  
*a-Would you like setting up trials?*  
*b-Would you like to set up trials?*  
*c-Would you like to setting up trials?*  
*d-Would you like set up trials?*

10.It was several years ago but

*a-l remember discussing the advantages of videoconferencing.*

*b-l remember to discuss the advantages of videoconferencing.*

*c-l remember to discussing the advantages of videoconferencing.*

*d-l remember discuss the advantages of videoconferencing.*

*Best Regards*

*The researcher*

## *Appendix(III)*

### **List of Juries:**

1. *Prof. Ezzo Afana*
2. *Dr. Kamal Murtaja*
3. *Dr.Hassan Al-Nabeeh*
4. *Mr.Ref'at Al-'Ara'aer*
5. *Mr.Hosni Sobeh*



## Appendix (IV)

### A request form for conducting the tools of the study:

23/4/2011

To Whom It May Concern

Mr. Mazen Marouf is conducting an MA thesis on the difficulties that IUG students face in the course English for engineering students. In order to facilitate his job, I hope that your honor do your best to help him conduct his research.

Thank you in advance,

Dr. Kamal R. Mourtaga, adviser  
IUG English Department  
E. Mail: kmortaga@yahoo.com


الإصوة الرضا  
السيد  
السيد  
السيد

السيد  
السيد

## Appendix (V)

### A request form for conducting the tools of the study:

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



1150 هاتف داخلي: 1150

**الجامعة الإسلامية - غزة**  
The Islamic University - Gaza

**عمادة الدراسات العليا**

ج س غ/35  
الرقم: 2011/04/23  
التاريخ: .....

الأخ الأستاذ الدكتور/ نائب الرئيس للشئون الأكاديمية  
حفظه الله،  
السلام عليكم ورحمة الله وبركاته،

**الموضوع/ تسهيل مهمة طالب ماجستير**

تهديكم عمادة الدراسات العليا أعطر تحياتها، وترجو من سيادتكم التكرم بالإيعاز لجهات الاختصاص بتسهيل مهمة الطالب/ مازن محمد سلطان معروف، برقم جامعي 120090835 المسجل في برنامج الماجستير بكلية التربية تخصص مناهج وطرق تدريس-اللغة الإنجليزية، وذلك لمساعدته في تطبيق أدوات دراسته على طلاب وطالبات كلية الهندسة (بكالوريوس) والحصول على المعلومات التي تساعد في إعدادها والمعونة بـ:

**Difficulties facing students in Studying the English Course for Engineering at the Islamic University of Gaza**

والله ولي التوفيق،،،

عميد الدراسات العليا  
د. زياد إبراهيم مقداد



صورة إلى:-  
❖ الملف.

P.O. Box 108, Rimal, Gaza, Palestine fax: +970 (8) 286 0800 فاكس Tel: +970 (8) 286 0700  
public@iugaza.edu.ps www.iugaza.edu.ps ص ب 108 الرمال غزة فلسطين هاتف

## Appendix (VI)

**Table of the Numbers of the engineering students who were studying the English course for engineering in the university year 2010-2011:**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Deanery Of Admission & Registration

**الجامعة الإسلامية - غزة**  
The Islamic University - Gaza

عمادة القبول والتسجيل

الرقم...ج.س.ج. 56 Ref .....

2011/05/23 Date .....

التاريخ.....

**لن يهمه الأمر**

تفيد عمادة القبول والتسجيل في الجامعة الإسلامية بغزة بأن أعداد الطلبة المسجلين في مادة إنجليزي تقني "Technical English" حسب التالي:-

طالبات	طلاب
129	302

وقد أعطيت له هذه الإفادة بناء على طلبه دون مسئولية الجامعة فيما يتعلق بحقوق الغير.

د. عبد الرؤوف المناعمة

عميد القبول والتسجيل



P.O. Box 108, Rimal, Gaza, Palestine    Fax: +970 (8) 286 0800    فاكس    Tel: +970 (8) 286 0700    ص.ب. 108 الرمال، غزة، فلسطين هاتف  
\* public@iugaza.edu.ps    www.iugaza.edu.ps



## Appendix (VII)

### Arabic abstract

#### ملخص الدراسة

### الصعوبات التي تواجه طلبة الهندسة في تعلم مساق اللغة الانجليزية لأغراض هندسية في الجامعة الاسلامية

هدفت الدراسة إلى التعرف على الصعوبات التي تواجه طلبة الهندسة في تعلم مساق اللغة الانجليزية لأغراض هندسية في الجامعة الإسلامية في غزة.

ولإجابة تساؤلات الدراسة تبنى الباحث المنهج التحليلي الوصفي. وتكونت عينة الدراسة من 210 طالب و طالبة ما نسبتهم 48.7% من مجتمع الدراسة تم اختيارهم عشوائيا، و طبقت عليهم استبانة مفتوحة صممت للمساعدة في بناء الاختبار التشخيصي والذي يعتبر أداة الدراسة الرئيسية.

جمعت البيانات و عولجت حسابيا باستخدام النسب العادية و النسب المئوية و اختبار "ت" و وان وي انوفا واختبار شيفيه البعدي ومعادلة ألفا كرونباخ و طريقة التجزئة النصفية للتحقيق الصدق و الثبات.

وخلصت الدراسة إلى أن هنالك فروق ذات دلالة إحصائية في الصعوبات التي تواجه طلبة الهندسة في تعلم مساق اللغة الانجليزية لأغراض هندسية في الجامعة الإسلامية بغزة في مهارتي القواعد و المفردات تعزى لجنس الطالب.

كما وخلصت الدراسة إلى أن هنالك فروق ذات دلالة إحصائية في الصعوبات التي تواجه  
طلبة الهندسة في تعلم مساق اللغة الانجليزية لأغراض هندسية في مهارتي القواعد و المفردات  
تعزى لمعدل الطالب التراكمي.

وفي ضوء هذه النتائج اقترحت الدراسة بعض التوصيات والتي ممكن أن تساعد مصممي  
المناهج والمشرفين و معلمي اللغة الانجليزية في تدريس اللغة الانجليزية لأغراض هندسية و اللغة  
الانجليزية لأغراض خاصة على وجه العموم.