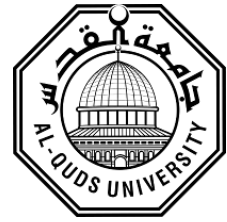


**Deanship of Graduate Studies  
Al-Quds University**



**Determining English Foreign Language Needs for  
Undergraduate Students in Scientific Faculties from  
Students' and Academic Staff's Point of View at Al-Quds  
University**

**Mus'ab yousef Issaa Abed Rabboh**

**M.Sc Thesis**

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**Determining English Foreign Language Needs for  
Undergraduate Students in Scientific Faculties from  
Students' and Academic Staff's Point of View at Al-Quds  
University**

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Deanship of Graduate Studies  
Teaching Methods Program



### Thesis Approval

**Determining English Foreign Language Needs for Undergraduate Students in  
Scientific Faculties from Students' and Academic Staffs' Point of View at  
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Jerusalem – Palestine

1440/2018

## **Dedication**

It is our genuine gratefulness and warmest regard that we dedicate this work to:

The sake of Allah, my Creator and my master,

My great teacher and messenger, Mohammed (peace be Upon him), who taught us the purpose of life, My homeland Palestine, the warmest womb,

A caring mother, who leads me through the valley of darkness with light of hope and support,

The great martyrs and prisoners, the symbol of sacrifice,

My fathers' soul that became the suns and lighten the darkness of nights, God bless him, may his soul rest in peace,

My dearest wife, who stands beside me,

Who stands now on death's triumphal steep, Awakened out of life wherein we sleep "*Dr.Ziad Qabaja*". God bless him.

My father , mother -in-law who encourages me all the time,

My beloved and delightful sons, Sham and Adam, the candles that lighten my bath  
May Allah bless and protect them,

My beloved brothers and sisters who stand by me when things look bleak,

My friends who encouraged and supported me,

My lovely family and life-long companions,

My teachers and doctors who paved the way and made possible to lighten my road.

## **Declaration**

I Certify that this thesis submitted for the degree of Master, is the result of my own research, except where otherwise acknowledged, and that this study (or any part of the same) has not been submitted for a higher degree to any other university or institution.

Signature:-----

Name: Mus'ab yousef Issaa Abed Rabboh

Date: 19/ 12/ 2018

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## **Abstract**

This study aims at determining English foreign language needs for undergraduate students in scientific faculties from students and academic staff's point of view at Al-Quds University. The population of the study consisted of (5052) students and (141) academic staff at scientific faculties. The study adopted the descriptive method that suits needs analysis. It was applied on stratified random sample which consisted of students and academic staff in the academic year (2018-2019). Students' sample included (1048), whereas (80) academic staff were chosen. The researcher prepared a student's questionnaire, an academic staff's questionnaire, and academic staff's interview. Validity and reliability were calculated for two instruments. The means and standard deviations, One-way "ANOVA", (t-test) and "LSD" tests were used in the study.

The results revealed that the importance of English foreign language needs at the scientific faculties from students' and academic staff's point of view are very high, and the most important English foreign language needs from students point of view are ordered as the following: speaking, listening, reading, vocabulary, and writing but the lowest important English foreign language needs at the scientific faculties from students' point of view is grammar. It also showed that English foreign language needs for undergraduate students in scientific faculties from students' point of view is in a high degree, and the needs are ordered respectively as the following: vocabulary, listening, speaking, reading, writing, but grammar is the lowest degree.

The results revealed that the most important of English foreign language needs at the scientific faculties from academic staff's point of view are ordered as the following: writing, reading, speaking, listening, vocabulary but the lowest importance is grammar. It also showed that English foreign language needs for undergraduate students in scientific faculties from academic staff's point of view is in a very high degree, and the needs are ordered respectively as the following: listening, writing, vocabulary, reading, speaking but grammar is the lowest degree.

The findings also showed that there were no statistically significant differences between the mean scores of responses of students' in scientific faculties towards English language needs due to academic level and achievement level, whereas there were statistically significant differences due to gender and faculty. Also, there were no statistically significant differences

between the mean scores of responses of academic staff's in scientific faculties at Al- Quds university towards English language needs due to experience and qualification, whereas there were statistically significant differences due to faculty. According to interview, the results showed that scientific students need to integrate English language skills in their scientific courses. Furthermore, English skills are needed for many functions in these courses.

Based on those findings, the researcher recommended of the curriculum at the scientific faculties and schools could be revised in order to fulfill students' needs especially speaking, writing and listening. And conducting studies on humanities faculties.



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## Chapter One

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### 1.1 Introduction

Today in (2018), the world has largely influenced by some important aspects exactly the English language globalization, the existence of the international language situations, development in the fields of sciences, the create of information and communication technologies. In shed of these actions, learners all over the globe, regardless of their mother tongue and their interests, are governed by the language needs to learn a worldwide to undertake some academic assignments such as reading scientific articles and writing reports.

Lamari (2016) stated that the common use of the English language as an international tools of communication has a great expansion. This fact is reflected in different fields and in various domains. According to Shadfan (2014), the recognition of the position of English as an important international language of communication, can be noticed for all universities offer different English language courses for scientific students as compulsory university.

Ahmadi and Bajelani (2012) added that English for Specific Purposes (ESP) is a branch of English Language Teaching (ELT) which is divided into two main streams of English for academic Purposes (EAP) such as medicine, engineering, pharmacy, etc. And English for Occupational Purposes (EOP) such as English for secretaries, technicians, etc. Considering the developments in science and technology and the appearance of many different majors inside each course like medicine, engineering, theology, etc. Makes EAP a special Language in each course and their materials should be compiled in accordance with that course. He added that students' background and their language needs seem to be an obligation, since incongruity between students' prior knowledge and the level of materials leads to failure. These students' English knowledge is not satisfactory for starting their ESP

course, and clearly they have problems comprehending their English textbooks. General English textbooks which are presented prior to special English textbooks are not well-connected both quantitatively and qualitatively. Preparing students to comprehend special English is the most important and underlying goal of general English textbooks.

Lamari (2016) added that in order to reach specific objectives for the world countries, introduced English courses at all the levels of the educational system; especially at the university through ESP which is the common and well established teaching methodology, to fulfill the specific learner needs, and meet the social requirement according to their needs. So, English should be taught to fulfill specific language skills using real situations, in a manner that allows learners to use English in their future profession, or to comprehend English discourse related to their area of specialty.

Hutchinson and Waters (1992) pointed out that ESP is not a result or a product; rather it is an approach to needs. Therefore, educational, investigational, and occupational needs, etc. Each has separated goals and needs English in different times and different places. So, the goals of ESP are specified in accordance with these needs and contents for teaching English are defined on their bases. Students of non-English courses face lots of problems regarding learning and understanding English during their scientific classes. Thus, they become disappointed with their progress and their English achievement.

Moreover, Shadfan (2014) added that more specific courses are provided for scientific students in different specializations other than that of general English ones offered for all university students in state of Palestine. To present courses in English reflects the recognition of the important and international position of English. However, this recognition should be joined with the identifying of the scientific learners' specific language needs to be finally culminated with successful relevant courses. In this respect, this identifying is meant to give answers to various scientific students' English language needs to help those in the college who desire to develop successful courses that meet the needs of the scientific students in universities in Palestine.

Chatsungoen (2015) stated that through the use of an effective needs analysis process, new ESP courses from a wide range of disciplines can be developed and existing courses can be reviewed and revised to ensure that the specific language skills being taught are connected to the current requirements of the occupation or profession.

Generally, needs analysis is an important point to be able to deal with these requirements. In addition, courses should be designed according to students' linguistic needs.

## **1.2 Statement of the Problem**

From my teaching experience for ten years, students have difficulties in the second language. That refers to many reasons, for example, the nature of acquiring it. There is no practice for it in real-life situations. These difficulties reflected on students' achievements. So, they have a great weakness in English language, that also related to the negative attitudes to the language. This weakness relies on the English language skills which are receptive (listening and reading) and productive (writing and speaking). Needs analysis may consider the way to diagnose what students need in scientific faculties. Abdelfattah, Ghenghesh and Hamed (2011) reported that needs analysis has not received adequate attention in the Arab world, and the needs of learners are seldom or never analyzed but rather perceived for them. So, determining students' needs can offer valuable data to the experts. These needs can guide practitioners to develop and determine the route of ESP courses. So, students may need these skills in their scientific courses.

The problem of the study sufficed as at all universities in Palestine, English foreign language has been studied as a general English (GE) course. There is no university across Palestine which is interested in teaching English for specific purposes (ESP). So, the present study, therefore, emanates from the researcher aims to determine the English language needs for students in scientific faculties who are going to be in various sectors of practical life in or out of Palestine.

## **1:3 Questions of the study**

**The study tries to answer the following main question:**

**What are English foreign language needs for undergraduate students in scientific faculties from students' and academic staff's point of view?**

**The sub-questions are**

1. What are the most important English foreign language needs at the scientific faculties from students' point of view?

2. What are English foreign language needs for undergraduate students in scientific faculties from students' point of view?
3. Are there any significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al-Quds university towards English language needs due to (gender, academic level, achievement level and faculty)?
4. What are the most important English foreign language needs at the scientific faculties from academic staff's point of view ?
5. What are English foreign language needs for undergraduate students in scientific faculties from academic staff's point of view?
6. Are there any significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to (experience, faculty and qualification)?

#### **1:4 Hypotheses of the study**

The null-hypotheses of this study are the following:

**The first hypotheses:** There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to gender (male or female).

**The second hypotheses:** There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level ( first year, second year third year, fourth year and above).

**The third hypotheses:** There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level ( 65- less than 75, 75- less than 85, more than 85).

**The fourth hypotheses:** There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in

scientific faculties at Al- Quds university towards English language needs due to faculty (engineering, dentistry, medicine, pharmacy, science and technology, health professional).

**The fifth hypotheses:** There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to experience ( Less than 5, 5- less than 10, 10- less than 15, more than 15).

**The sixth hypotheses:** There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to faculty (engineering, dentistry, medicine, pharmacy, science and technology, health professional).

**The seventh hypotheses:** There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to qualification (lecturer, assistant professor, associated professor, professor).

### **1:5 Purposes of the Study**

#### **This study aims at:**

1. Determining the most important English foreign language needs at the scientific faculties from students' point of view.
2. Determining English language needs of undergraduate science students at Al-Quds university according to their students' point of view.
3. Exploring whether students' responses vary due to gender, academic level, achievement level and faculty.
4. Determining the most important English foreign language needs at the scientific faculties from academic staff's point of view.
5. Determining English language needs of undergraduate science students at Al-Quds university according to their academic staff's point of view.
6. Exploring whether academic staff's responses vary due to experience, faculty and qualification.

## **1:6 Significance of the Study**

This study provides necessary information on the theoretical, practical and research fields.

**On the theoretical field:** The significance of the study is mainly concerns with students in scientific faculties who will study what they need not to what is being imposed. It has significant in different ways to enrich development and research in this area in the country, similar contexts and more globally. The results of this study may bridge the gap and enrich the literature for further research, with further variables, stages and different instruments. It contributes to the literature of NA by making the data and findings of this study available for prospective researchers, so, this study introduces a theoretical framework about EFL needs in scientific faculties.

**On the practical field:** It will provide a good model that can be used to improve the educational process in scientific faculties at Al-Quds university by determining English language needs for students at scientific faculties. This study offers a great benefit to curriculum designer to develop designing curriculums. It is also significant in terms of its potential impact on the process of syllabus design for ESP programs in scientific faculties.

**On the research field:** It is significant within its own setting because it is the first time (according to the researcher's knowledge) that both the scientific students and academic staff have been involved in a discussion concerning students' language needs at all universities in Palestine.

## **1:7 Limitations of the Study**

The current study was limited to:

1. **Human limitations:** This study consisted of undergraduate students in scientific faculties students and their academic staff at Al- Quds university.
2. **Temporal Limitations:** The study was carried out in the first semester of the scholastic year (2018 -2019).
3. **Locative Limitations:** The study was applied and carried out in science faculties at Al Quds university.
4. **Conceptual Limitations:** The study was limited to the concepts and definitions previously mentioned in it.

## **1:8: Definition of terms**

**English for specific purpose (ESP):** defined as teaching and learning English as a second or foreign language for the purpose of using it in a particular domains. (Otila, 2015)

**Needs analysis:** Collecting information about the learners and defining the target situation in the environment of studying ESP. (Duddley -Evans and John, 2009)

**Operational needs analysis:** A family of procedures for gathering specific linguistic information about science learners needs in science faculties at Al-Quds university. These procedures include students' questionnaire, academic staff's questionnaire and an academic staff's structured interview.

**Operational science students:** Cadets who are studying in the scientific faculties which include: engineering, dentistry, health professional, medicine, pharmacy, science and technology at Al-Quds university.



## **Chapter Two**

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### **Review of literature and Related Studies**

#### **2.1 Introduction**

This chapter has two sections, theoretical framework and related studies. Theoretically, the researcher attempted to shed the light on English for specific purposes, needs analysis, types, approaches and English language skills.

On the related studies section, summaries of results of relevant research studies were given. This survey covered studies on both the international level and the local one. Moreover, the implications of these studies for the present study were discussed.

#### **2.2 Literature Review**

##### **2.2.1 What is English for Specific Purposes?**

English language is an international language around the world. It is used for many purposes based on function of the language in specific fields of education. English is used as a means for communication between people across different fields of studies. Applying English in schools or universities controlled by clear rules and basics.

##### **2.2.2 Emergence of (ESP)**

The roots of teaching Language for Specific Purposes (LSP) can be followed as far back as the Greek and Roman empires (Dudley Evans and Johns, 1998). In the same point, Rahman (2015) mentioned that the emanate of English for specific purpose or ESP in the late 1960s were the fast improvements of different issues in the field of science, medicine, engineering, social and economics and the revolution of linguistics.

Lamari (2016) assisted that ESP has become one of the most active streams of Applied Linguistics since 1960's, and of Teaching English as a Foreign Language (TEFL) in particular. Among the factors that could explain its vitality and expansion is the emergence of English as a world language and the necessity to cope with the different teaching situations and needs that such a position brings about. Such necessity implies an understanding of its development, types and the different teaching concepts of ESP. However, it is of great importance to start with the main definitions stated by the linguists concerning ESP.

Salas, Mercado, Ouedraogo, Musetti & Carolina (2003) confirmed that English as the international language is used as a medium to communicate among different countries and different fields. These various contexts thus have changed the variant of English. Furthermore, Saragih (2014) added that ESP is developed as one of English language teaching branches to meet the needs of specific academic and professional fields with a complete analysis of the linguistic features of the situations.

Generally, Lamari (2016) conducted that the students study English not because they are interested in the English Language or English culture as such, but because they need English for study or work purposes. He stated three reasons of existence of ESP. these include the demand of a developed new world, a revolution in linguistics and a new focus on the learner. Consequently, it created a new generation of learners who knew specifically why they were learning a language. The idea was based on the statement of telling what you need English for. It was a natural expansion of this philosophy to plan special courses for each range of specific learners. Old approach in language study centered the attention on the grammatical rules control the language practice, though it was found that the discourses differs referring to the contents, it was necessary to familiarize the teaching and learning methodologies and make the specific traits of each situation focusing of learner's courses. The English used by pharmacists, dentists, linguistics or officers is not based on the same terminological terms consequently the teaching and learning process was directed on the basis of the use of specific forms for each field. In the same period learner's motivation towards getting a foreign language was the subject study of the educational psychologists, who saw the use of various learning strategies by learners; they have various attitudes, feelings, needs and interests.

In addition, Belcher (2009) claimed that English for specific purpose approach is not restricted to the teaching of English, it can be used to teach many languages such as French and German. The extended term "Language for Specific Purpose" (LSP) also exists. This one focuses mainly on the teaching of English, the term (ESP) used through ESP.

### **2.2.3 ESP Characteristics**

ESP is a known task of English Language Teaching (ELT) with some specific characteristics. Dudley - Evans and John (1998) tried to apply characteristics, some absolute and some variable, to outline the major features of ESP.

#### **2.2.3.1 Absolute Characteristics:**

ESP is defined to meet specific needs of the learners.

ESP makes use of underlying methodology and tasks of the discipline it serves.

ESP is focused on the language (grammar, lexis, and register), skills discourse and genre appropriate to these tasks.

#### **2.2.3.2 Variable Characteristics:**

ESP may be referred to or designed for specific disciplines.

ESP may use, in specific teaching situations, a different methodology from that of General English.

ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could be for learners at secondary school level or universities.

Dudley - Evans & John, (1998) added that ESP is generally designed for intermediate or advanced students. Most ESP courses assume some basic knowledge of the language systems, but it can be used with beginners.

It is obvious that the absolute characteristics are specific to ESP because learners' needs are of central importance when designing language activities. Concerning the variable features', ESP courses can be designed for a specific group using definite teaching methodology, nevertheless, all learners' categories and disciplines can be concerned with ESP for that reason.

Dudley- Evans and John (1998) illustrated that it is as an' attitude of mind. Similarly, Hutchinson and waters' (1987) stated that "ESP should properly be seen not as any particular language product but as an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning."

#### **2.2.4 Types of ESP**

Nimasari (2018) claimed that experts have determine the kinds of ESP. Javid (2013) defined the types into two classification based on two researchers. The first classification comes from Hutchinson and Waters stating that ESP consists of English for Occupational Purposes (EOP) and English for Academic Purposes (EAP). EOP addresses all English teaching and learning for professional, skills, and education that one needs for a job.

Rosa (2008) stated that EAP focuses on those who need English for academic study. The second classification is defined where she describes ESP into three types, English as a restricted language, English for Academic and Occupational Purposes (EAOP), and English with specific topics. EAP is more general, therefore it is specified to certain purposes, Engineering, medicine, dentistry, science or other. For this reason, all material and teaching learning approach developed should relate with these specializations discipline and the students' needs. Before developing the material, need analysis for the specialized students is significantly needed. It is important to notice that ESP is a strong movement which has imposed its influence all over the world, but still there are many things to do for its future development. This perspective of expansion presupposes that there must be a constant improvement for better or suitable programs and courses, effective teaching, serious analysis and more consistent theoretical work in varied disciplines and particularly, in human sciences.

Belcher (2009) added that each type of ESP has a goal. Thus, English for academic considers academic content at more advanced levels in comparison to a secondary school or to a practicing of a profession in tertiary-level academia. Nonetheless, English for occupational purposes is a diverse stream compared to ESP. In light to what it appears, EOP is the fastest in growth, i.e. English for business, legal and Medical goals. There is a similarity between EOP and EAP, as business, law, and medical schools fall under the academic stream, yet the interests of ESP specialists in these areas ordered well according to learners' needs in school settings and indeed include the needs of those already at work in their professional communities. The English for sociocultural purposes deals with the

frames of ESP to surround the needs of those who do not neatly fit into either academic or occupational sections but who clearly search membership in communities new to them, communities anywhere from immediate neighborhood to nation-state levels.

Nimasari (2018) added that NA is the process of collecting the evidence and information. Mostly, NA is conducted from ESP. NA is essentially needed for ESP because there are specific requirements to meet the goal of ESP. NA can cover teaching approach, methodology, and strategy. In addition, it includes material design, topics, and language features. Having the results of NA, the teachers are also able to analyze and to assess their ESP classes. NA aims to evaluate not only the related teaching and learning process, but also those related to the relationships between teachers and students, including attitudes, behavior, and beliefs. By conducting NA, both the institution and the teachers can determine what should be implemented and improved, and what should be not. Therefore, NA is the preliminary phase to develop, analyze, assess, and evaluate ESP class.

Needs' analysis can be referred to as a method to find and to evaluate what students want to learn and the results of this process will be drawn into a set of curriculum framework including syllabus, teaching materials, and methodology. (Rahman, 2015; Songhori, 2008).

This method can be done through various ways such as questionnaire, interviews, document and program analysis. Needs' analysis is the core of ESP since ESP has its own characteristics that differ from general English. The differences are in the situation, the content, and the target learning.

### **2.2.5 The origins of needs' analysis have been introduced by many experts**

Rahman (2015) and Songhori (2008) have summarized the origins of needs' analysis into several concepts.

According to Songhori (2008), he described the concepts of needs' analysis into nine approaches: target analysis (TSA), present situation analysis (PSA), pedagogic needs' analysis, discourse analysis, register analysis, and genre analysis. Pedagogic needs' analysis itself covers deficiency analysis, strategy analysis, and means analysis. Meanwhile, Rahman (2015) indicates that there are five components of ESP analysis. These are the target situation analysis (TSA), the learning situation analysis (LSA), the present situation analysis (PSA), the means analysis (MA), and the language audits (LA). More or less, those reviews are similar but the description of the language in ESP is more

emphasized in Songhori's study (2008). Therefore, needs' analysis of all components are described into 10 specific areas. Those ten areas are the present and future domain of language use, the students' attitude towards the ESP curriculum, language skill learning preferences, the importance of particular language skills, the learning strategies preference, and the classroom interaction, the role of relationship, the teaching activities preferences, the environmental situation, and the students' need from the program. Based on those various concepts of needs' analysis, it can be concluded that needs' analysis is applied to bridge the gaps among learners' background, learners' lacks, target of the program, and environmental situation of learning process. Therefore, the results of each component can be correlated into a specific teaching methodology that is appropriate with what learners' want and their necessity. Different context may have different results of needs' analysis. Each program can select which components of needs' analysis is appropriate depended on its particular purpose or situation. It is highly important to conduct needs' analysis for specific fields so that the expected goals be achieved.

#### **2.2.5.1 What is Needs' analysis?**

Brown and Howard (1997) stated the concept of needs' analysis because of the works of the Council of Europe and works in ESP (English for Special purposes) in 1970's.

Mohammed (2016) identified needs' analysis as the corner stone in the process of designing an English for specific purposes (ESP) course, and many scholars and authors stated its importance. Jordan (1997) added that different concepts of needs' analysis have emanated, such as target-situation needs' analysis, deficiency needs' analysis, strategy needs' analysis, means analysis, language audits, set-menu needs' analysis, computer-based needs' analysis, etc. He also added a variety of the methods of needs' analysis showed, such as, pre-course placement /diagnostic tests, entry test on arrival, self-placement/self- diagnostic tests, observation of classes, questionnaires, structured interviews, learner's diaries, case studies, final evaluation/feedback, and previous research.

Johns (1991) stated that needs' analysis is the first step in course design and it provides validity and relevancy for all activities and exercises specialized courses.

According to Iwai et. al. (1999), he referred to the term needs' analysis to the group of activities which are required in collecting information that will develop a curriculum that

will meet the needs of a particular group of students. The causes of establishing different approaches then replaced by others is that teachers have intended to meet the needs of their students during their learning. So, he mentioned two types of needs' analysis; formal and informal. Formal ones are related to the field of language teaching. Informal needs analyses have been conducted by teachers in order to assess what language points their students need to master. Brindley (1989) offered definitions of different types of needs and accounts of different problems and limitations in making use of this concept, including ways in which one might usefully distinguish between needs identified by analysts and those expressed or experienced by learners.

#### **2.2.5.2 Modern components of Needs' analysis**

As Dudley -Evans and John (2009) stated eight modern components of needs' analysis which have been grouped into five broad areas including:

1. Present situation analysis which aims to identify learners' current skills and language use.
2. Target situation analysis and objective needs' analysis which aim to identify tasks and activities that learners will use English for.
3. Linguistic analysis, discourse analysis, genre analysis which aim to identify knowledge of how language and skills are used in the target situations.
4. Subjective needs' analysis which aims to identify learners' wants, means, subjective needs -factors that affect the way they learn (e.g. previous learning experiences, reasons for attending the course, expectations).
5. Means analysis which aims to identify information about the environment where the course will run.

#### **2.2.6 Approaches of Needs' Analysis**

Different approaches to needs' analysis attempt to meet the needs of the learners in the process of learning a second language. Not a single approach to needs' analysis can be a reliable indicator of what is needed to enhance learning. Berwick (1989) distinguished between two types of needs; 'perceived needs' and 'felt needs'. The first refers to the needs that educators make judgments about according to other people's experiences, meanwhile the later indicates what learners have.

Songhori (2008) argued that there is an understanding of the fact that different types of needs analyses are complementary. Each one provides its aspect to continue the circle of needs' analysis. All the works done in ESP have sought to promote the communicative nature of language teaching because they start with register analysis. ESP teachers have been very concerned with the needs of students as they used language. For this reason, today needs' analysis should not be concerned only within the field of ESP, but also that of General English because the needs of the learners are of paramount importance in any language process.

To sum up, needs' analysis consists of assessing the communicative needs of the learners and the techniques of achieving specific teaching objectives. Nowadays, the tasks of needs' analysis is much more complex: it aims at collecting information about the learners and at defining the target situation and environment of studying ESP. ESP courses are based on needs' analysis, the learning objectives are more obvious than would be in the case of general ESL courses, and it can be assumed that students will be more highly motivated in learning about topics and texts which are related to their study or work areas.

Stern (1992) compared four types of ESP teaching objectives which are: proficiency, knowledge, affective and transfer.

- **Proficiency objectives** refer to the dominant four language skills: reading, writing, listening and speaking.
- **Knowledge objectives** include the acquisition of linguistic and cultural information.
- **Linguistic knowledge objectives** refer to language analysis and awareness of the systematic aspects of language while cultural knowledge objectives refer to the control of socio- cultural rules mastery of the norms of society, values and orientations and also the ability to recognize culturally significant facts.
- **Affective objectives** are about the development of positive feelings towards the subject of study.
- **Transfer objectives** stress out the ability to generalize from what has been learned in one situation or another.

According to these definitions, it is obvious that ESP focuses on relating the teaching and learning of English process to the learners' communicative needs. Hutchinson & Waters



(1992) observe that if we know why learners need English, the content of the language can be adjusted accordingly and the teaching process will focus on these needs.

Masoupanah and Tahririan (2013) clarified that the needs are determined according the objectives of developing teaching operation with its details. For example, improving activities, exams, teaching strategies in order to meet students' needs. Brown (1995) noticed that needs should be identified as the basis for developing tests, materials, teaching activities and evaluation strategies in terms of courses' aims.

To summarize, the advantages of analyzing students' needs are stated by determining the students' needs in terms of diagnosis professional English language skills and their capabilities in the region of language skills.

Otilia (2015) stated that needs' analysis is the strategy to develop curriculum content, teaching materials and methods that can lead to increase the learners 'motivation and success. To achieve so, students' needs must be analyzed and then language course objectives be determined. This would lead to select the material that meets with students' needs.

### **2.2.7 Purposes of Needs' analysis**

Richards (1990) mentioned three purposes of needs' analysis. First, it supports a mechanism for obtaining a wider range of input into the content, design, and implementation of a language program through people as learners, teachers, administrators, and employees in the planning process. Second, it identifies general or specific language needs that can be stated in developing aims and content for a language program. Third, it provides data that can serve as the basics for reviewing and evaluating an existing program. Existing programs have established goals designed to meet the needs of their students. These goals are relatively permanent, and they determine the aims of the course. Needs' analysis, however, can identify objectives which are intended as sources to achieve the goals.

### **2.2.8 Weaknesses in English Language for Non-Natives**

Tangkijmongkol and Wasanasomsith (2013) talked about their academic experience. They talked about the problems in dealing with English language. There are a lot of kinds of problems in English language learning and teaching that have been documented. The

Ministry of Education in Thailand (2006) has identified that the problems in teaching and learning come from two main factors:

The main factor is the Thai's educational system itself as more than half of the Thai teachers, or (52%) have low English proficiency and more than (80%) of English teachers in schools did not graduate with major in English. Tangkijmongkol and Wasanasomsith (2013) argued that, in scientific manners, teachers need to be aware of understanding of students' needs, wants, and lacks as well as their problems that they encounter in English language learning. That is because these students, like other groups of language learners, need support from their teachers, schools, and related organizations and authorities to help them improve their English skills in order to ensure better opportunities in their professional life.

The second factor is the traditional methods of teaching and learning teachers implement. Teaching and learning a language in Thai classrooms should integrate all language skills. However, teachers are still using the traditional teaching method focusing mainly on grammar and vocabulary practiced mainly through memorization. Therefore, students are not able to use English to communicate effectively in science fields.

### **2.2.9 English for Science**

Non-native speakers lack language efficiency, and a lot of sorts of problems in their academic lives. Ammon (1994) maintained that non-native scholars faced language problems which vary from one society to another as some scientific communities find it much easier to cope with. Despite the numerous pieces of research formed in different geographical areas in order to specify the language related lacks and needs, the picture is still weak and needs clearing up by more research in different parts of the world. There are gaps in the data for developing countries where the reality of language - related complications might be even more adverse. He stated that the imposition of English language learning gradually creates attitudes towards the international language and makes it even harder for the scholars to cope with the difficulties caused by English deficiency.

Gunnarsson (2001) believed that this language deficiency eventually leads to the researchers' isolation from the academic society and decreases their motivation in trying to explore the others'. Abdelfattah, Ghenghesh and Hamed (2011) reported that hardly any needs' analysis has received adequate attention in the Arab world; the needs of learners are seldom or never analyzed but rather perceived for them. Thus, determining students' needs

can offer valuable data for experts. These needs can guide practitioners to develop and determine the route of ESP courses. Consequently, this thesis puts forward a framework for determining English language needs for the scientific faculties. It targets both students and academic staff in scientific faculties at Al-Quds University. It seems from a practical desire as a teacher to be more certain that students' needs are the top priority.

Hutchinson & Waters (1987) believed that the starting point of every language program should be the analysis of what the learners need the language for. They suggested that it is usually possible to specify needs, even if it is only the need to pass the exam at the end of the school year. There is always an identifiable need of some sort. Since the distinguishing feature of an English for Specific Purposes (ESP) course is its content, it should always reflect what learners need.

#### **2.2.10 English language skills in ESP**

Xhaferi (2011) stated a great question that should be addressed in teaching ESP courses: why learner need to learn a foreign language. Some ESP researchers focus their studies on business English, others on legal English and another group on scientific English, but the common thing of all these courses are specific learners' needs, lacks and wants.

Fiorito (2005) (cited in Xhaferi and Xhaferi 2011) stressed that ESP courses are formed to meet students' needs based on their specializations. The goal of that is to empower students' proficiency and help them to be able to deal with everyday situations. English should not be used in isolation but in proper texts for the fields. Using English in relevant texts will enable learners to learn the routes and situations they need to use the language in their specialized fields. Moreover, since these ESP students have already chosen these specific fields for their future, learning English will only complement their choice in ESP classes. In addition, ESP learners learn new vocabulary items using various strategies in their native languages because learning a language is a life-long process.

So, students need linguistic needs to be able to deal with scientific subjects. Those needs include English language skills. The language skills reading, writing, listening and speaking are very important and crucial in teaching ESP courses, but they often depend on learners' needs and interests.

### **2.2.10.1 Speaking in Science Fields**

Speaking skills in science fields are the ability to perform the linguistic knowledge in scientific actual communication. The ability functions are to express scientific ideas, feelings, thoughts and needs orally.

Ampa and et. al. (2013) added that if students do not have sufficient scientific vocabulary, they cannot communicate effectively or express their scientific ideas neither orally nor in writing. Another competency speaking is pronunciation. It is students' ability to produce clearer language when they speak in science in general. It deals with the phonological process that refers to the component of a grammar that determines how sounds vary in a language.

### **Learning Materials for Speaking Skills in ESP**

In designing scientific materials, the relevant subject of materials is selected according to the kind of the subject, the degree of difficulty of messages, and the language level set in relation to students' levels. It is also decided according to learning needs which can be measured by interview or students' observation for students.

Burkart (2004) states that speaking skills involve three areas of knowledge, namely, 'mechanics, functions, social and cultural rules. Mechanics' refer to pronunciation, grammar, and vocabulary. 'Functions' refers to transaction and interaction while the social and cultural norms refer to understanding how to take into account who is speaking to whom, in what circumstance, about what, and for what reason, such as turn-taking, length of pauses between speakers, and relative roles of participants.

Tomlinson (2003) proposes five dimensions for developing speaking skills in scientific fields. The first is conceptualizing learners' needs in order to link the language study either to the learners' future use or to their present receptivity. In designing the materials of learning, it should begin from who the learners are. The second is identifying subject matter and communication situation. It means that we need to know what learners want to do with the language, what type of environment the language is used, and what sub-skills the society requires of an effective speaker. The third is identifying verbal communication strategy. Conversation strategies should be integrated in teaching materials. The fourth is utilizing verbal sources from real life. Verbal expression related to students' real life may be used to design the materials in the classroom. The fifth is designing skill-acquiring task.

The tasks created should be relevant, so that they may help the learners in three essential aspects, namely: to acquire the skills, to learn rules of interaction, and to experience communication of meanings.

The five concepts will be the bases for analyzing students' needs in designing the materials for speaking skills. The materials developed are based on the given taxonomy of speaking skills which start from motor-receptive skills' to the function areas.

Tomlinson (2003) also indicates the importance of looking at learners 'subjective needs and objective needs. Subjective needs are learners' speaking proficiency, their speaking difficulties and real-life conversational situations outside the classroom. Objective needs include aspects such as personality, learning styles, wants and expectations of the course. All of them may help to decide how to design the materials.

### **Sub-Speaking Skills**

Kayi (2006) proposes the variety of sub-speaking skills that may be used based on situations; those are group interaction, discussion, dialogue, role play, interviews and presentation.

#### **2.2.10.2 Listening in ESP**

Aliauskiene (2011) stated that listening skills in language learning have not received effective attention despite the fact that (40 %) of daily communication is listening. Moreover, listening is one of the least understood processes in language acquisition. Anyone doubts nowadays that listening skills must be trained regularly.

Listening skills in learning English for specific purposes have not received effective attention by experts and shifted to a minor position. The priority changed into teaching speaking and writing. It is a fact that it is the skill most often used in everyday life. According to Miller (2003), more than (40%) of daily interaction is spent on listening, (35%) on speaking, about (16%) on reading, and only (9%) on writing. Although it has great importance to communication and language acquisition, listening remains one of the least understood processes in language learning. Thus, beginners and progress students can hardly auditory follow what is normally an average native speed rate. Another reason is the phonological changes that take place in native spoken discourse such as deleting or adding

sounds; a matter that makes it difficult to identify the word. In addition, word boundaries are unclear which also adds to the obstacles.

According to Thomas and Renandya (2011), scientific students believe that speech rate plays a key role as a listening obstacle. Thomas and Renandya (2011) suggested that listening strategies must be taught. Moreover, practicing extensive listening might be fruitful. What they mean by extensive listening is all the types of listening tasks that let scientific students receive a lot of comprehensible and enjoyable listening input. Such tasks can be directed dictations, listening practice in the classroom or self-directed listening for pleasure. It goes without saying that listening is best learnt through listening.

Likewise, Field and Wilson (2003) argued that teaching higher level cognitive and metacognitive skills like inference, and self-monitor strategies will decrease learners' listening obstacles. So, a scientific approach is essential to improve listening skills in order to help students.

A suggested approach for enhancing scientific students' listening language skills can include the following procedures. First, to clarify to students that the lack of listening comprehension is simply inevitable in language learning at an early stage. The second is to expose students to more science-based listening activities. Moreover, students must be provided with five-to-ten-minute listening practices. The fourth aspect of this approach is to teach students important listening strategies like note-taking skills. Useful listening sub-skills incorporate predicting, guessing unknown words or phrases, identifying and retaining points, retaining relevant points, recognizing discourse markers, cohesive devices, understanding different intonation patterns and uses of stress and understanding inferred information. It is well-known that online communication activities can be categorized as receptive or interactive. In the context of aural/oral skills, receptive activities involve listening. In receptive communication, students access information in the form of text, images, audio, and video.

For receptive communication activities, there are websites that include ready-made exercises, e.g. true/false or multiple choice questions. The options for advanced learners' listening activities include rewriting an audio segment in more simplified language.

Teaching listening comprehension is undoubtedly a challenging task for teachers. The fleeting nature of sound makes it hard for listeners to focus attention on a particular word

or phrase for detailed analysis. Therefore, many teachers slip into testing the learners' listening comprehension rather than teaching them how to listen effectively. Cooperative listening should serve as a means to promote strategic listening comprehension.

Field (2002) confirmed that teachers have tended to begin their listening comprehension lessons by preparing learners for the scientific vocabulary they will hear in the recorded material. After having listened to the material, the students were required to answer some comprehension questions, followed by pronunciation practice.

### **2.2.10.3 Writing in ESP**

Harmer (2001) talked about differences between productive writing and productive speaking skills. Writing in scientific field has to be both coherent and cohesive. Scientific coherent writing makes sense because a sequence of ideas and points will be formed by scientific learners. Cohesion is a more technical matter concentrating on the various linguistic ways of connecting scientific ideas across phrases and sentences. There are certain conventions that have to be followed in scientific writings. Such rules and conventions are not written down anywhere, nor are they easy to define. Harmer (2001) added that rules for writing range according to many strategies and forms. It means that a different level of formality is used, which is sometimes described as distance or closeness. In scientific fields and faculties, there are a number of reasons why students find language production difficult: students do not have the minimum language to perform scientific tasks; there is no spontaneity in writing; the scientific topic or genre might create some difficulties. Furthermore, conventions in ones' native language are frequently non-transferable to a second language, especially if there is no standard translation between L1 and L2.

Moreover, Kavaliauskienė (2004) claimed that summarizing in education is invaluable: learners have to sum up reading scientific assignments, lecture notes, articles, exams, reports etc. The ability to write an effective scientific summary might be the most important writing skill in scientific fields. Scientific students need to be able to summarize scientific texts before they can be successful at the other kinds of writing. The goal of summarizing is an accurate and concise presentation of the original key points and ability to generalize. Some scientific learners assume that summarizing a text is a relatively easy activity, but actually it is not because writing involves some complex abilities. Reading comprehension is one of the necessary abilities. There were three important facts emerged:

learners reading rates are low, both writing and reading involve translating ideas from L1 (or L2) into L2 (or L1), but no statistical correlation between reading and writing skills has been found.

He also added that readers of the scientific written texts need to be able to use adequate reading strategies and must understand the written text, particularly the links between scientific ideas, paraphrase scientific points, make necessary generalizations and describe accurately key points. Summarizing demands from scientific students the ability to select scientific information. This involves making decision on how important or unimportant the facts are, and reorganize scientific information. Common writing mistakes include lack of organization, lengthy sentences and words, inappropriate content, incomplete usage, poor page layout, repetition, plagiarism, lack of structure and various grammatical mistakes.

Dudley-Evans and John (1998) claimed that knowledge of genre is a key element in all communication and especially significant in writing scientific texts. Developing writing skills in scientific fields involves skills of planning, drafting and revising so that the end product is appropriate both to the purpose of the writing and the intended readership. Moreover, writing is a difficult and tiring activity and usually needs time for reflection and revision, plus a peaceful environment.

#### **2.2.10.4 Reading in ESP**

Reading skills are important among the four language skills. Scientific students should be familiar with reading and sub-reading skills in order to be able to interact effectively in their scientific courses.

Jordan (1997) mentioned the following reading skills and sub-skills for academic reading matters: scientific texts prediction, scientific texts skimming (reading quickly for the main idea or gist, scanning (reading quickly for a specific piece of information), distinguishing between factual and non-factual scientific information, distinguishing between important and less important scientific idioms, distinguishing between related and non-related information, drawing scientific inferences and conclusions, recognizing unknown words, understanding scientific graphic presentation, understanding scientific text organization and linguistic/semantic aspects (e.g. Relationship between and within sentences - cohesion and recognizing scientific discourse/semantic markers and their function.)



Blanchard and Root (2005) suggested some important reading skills which are: identifying subject matter/topic, identifying main idea, identifying supporting details, distinguishing facts from opinions and recognizing sequence in sentences.

In other aspect, Carson (1994) clarified that there seems to be no extensive research into effective of reading skills and sub-skills in the second language (English). He suggested that this issue in the second language must be understood through the acquisition of literacy in the first language (Arabic). In other words, it involves the basic psycholinguistic issue of transfer of the abilities that enable L2 learners to utilize knowledge from one language in acquiring literacy in another.

Harmer (2001) also investigated the connections between receptive and productive skills in the L2 needs which are theoretical, experiential and experimental foundation. English language teachers cope with the qualitative dependence: well-read learners are better speakers and writers, and better literacy in the mother tongue helps developing literacy skills in the second language. He also added, scientific learner face difficulties in reading scientific text or charts, and teaching reading skills presents some other difficulties, for example, the length of words and sentences in written texts is one of the key difficulties longer sentences and longer words are more difficult to understand. The authentic books and materials present serious difficulty to students because no concessions are made to foreign learners who encounter non-simplified content. Reading authentic materials can be negative expectations of reading that due to previous unsuccessful experiences in learning or teaching.

There are various ways of addressing the problem of language difficulty in scientific fields, especially the reading skill. The most common strategies are: pre-teaching difficult or unfamiliar scientific lexis, encouraging learners to read scientific articles extensively, training learners in intensive reading for scientific texts, and teaching reading strategies that suit scientific fields. Skimming and scanning are useful first stages for developing reading skills when a reader decides whether to read a scientific text at all or which parts to read carefully. To develop an independent reader, a number of other strategies like scientific inferring, scientific summarizing, scientific checking and monitoring students comprehension, scientific connecting information from different parts of the text, evaluating and fault-finding are necessary.

These strategies involve reducing the meaning of unfamiliar scientific words and word groups, reducing not explicitly stated information, reducing conceptual meaning, increasing understand relationship in the text structure and parts of a text through lexical-grammatical cohesion devices and indicators in discourse and distinguishing facts from opinions.

Dudley Evans and John (1998) stated that grammar is often neglected in the teaching of reading scientific texts, because of many misconceptions about the importance role of grammar. In scientific readings, the scientific learners have grammatical weaknesses which interfere with comprehension of scientific meanings. They showed that poor reading in a foreign language is partially due to poor reading in L1 (Arabic). Learners need to reach a primary level of language knowledge before they are able to transfer any L1 (Arabic) skills to their L2 (English) reading scientific tasks.

Moreover, Lingzhu (2003) demonstrated that the processing of the scientific cognitive cannot be ignored. Learners must be aware of two texts' methods of processing: top-down and bottom-up. In top-down processing, scientific learners use the knowledge to make subsections about the scientific text. In bottom-up processing, they rely on their linguistic knowledge to recognize linguistic elements vowels, consonants, words, expressions, ideas, etc.

Carson (1994) added that the fundamental process involved in the second language learning is transfer between L1 (Arabic) and L2 (English) literacy skills. Transfer of skills by training students in learning reading strategies which can facilitate transfer.

#### **2.2.10.5 Grammar in ESP**

As for grammar, Dudely - Evans and John (1998) have stated that learners may have various grammatical obstacles that can restrict their ability to produce language or to deal with various language skills, so it is important to focus on such obstacles. As for presenting grammar for learners, they have stated that it is important for the teacher to depend on the situation to introduce different grammatical forms since some situations may require a specified use of grammatical structure.

They argued that it is incorrect to think that ESP - EAP or EOP courses do not pay attention to grammar. They have argued that this is wrong because much of the skill-oriented work in EAP or EBP does not concentrate on grammar in itself. However, this

relies on the English language proficiency level of the students and on the primacy of language use which can be allocated either to grammatical accuracy or to fluency.

Daniels (1996) mentioned that the development of grammar knowledge that occurs in ESP can be referred to as a scientific concept. With regard to grammar knowledge, intuitive grammar develops in everyday school and social environments and universities; whereas prescriptive grammar is learned in stages based on grade level reading and writing curriculum from kindergarten through high school and university. Prescriptive grammar knowledge develops into scientific concepts that elementary and secondary students practice in literacy activities. The development of scientific concepts can be a lifelong process as individuals review knowledge and acquire new learning. So, curriculum planners and teachers mediate the direction of the development of scientific concepts through instruction.

Rowley (2010) indicated that cadets in scientific faculties learn best by employing knowledge to solve problem and generalize their knowledge when they can apply what they have learned in real contexts such as science. This determines the degree to which graduate students demonstrate knowledge of formal grammar terminology and rules beyond secondary and college level instruction, in order to generalize the knowledge in an educational profession especially in scientific faculties.

#### **2.2.10.6 Vocabulary in ESP:**

Coxhead (2013) has shown that vocabulary in ESP is drawn from the question: What vocabulary do ESP learners need? This question addresses vocabulary used in a specific specialization, either in academic or occupational contexts. Vocabulary is necessary in ESP for different points. He has pointed out that the use of specified vocabulary demonstrates that students are members of a specific group. Jordan (1997) indicates that vocabulary is not a specific study skill, but relates to all language learning. He has also suggested that vocabulary should be given more consideration since learners often try to raise their vocabulary repertoire in order to improve their language. Learners may face different problems when dealing with vocabulary including "using a word correctly; own lack of vocabulary and confusion between similar sounding/looking words. He has also emphasized the importance of vocabulary in ESP and has noticed that particularly in EAP, vocabulary is not given that much attention, and that the treatment of vocabulary can be

insufficient especially as there are directions to make vocabulary incidental to reading comprehension.

Moreover, Coxhead (2013) has shown that the range and the number of the specific terminologies of scientific fields are not totally demonstrated. So, students are to be introduced with highly massive training in order to improve their comprehension of such vocabulary in their specializations.

Generally speaking, Dudley - Evans and John (1998) have assumed that vocabulary referred to "technical vocabulary" and "semi-technical vocabulary". "Technical vocabulary" relates to special terms used in specific academic or occupational contexts such as scientific fields. As for "semi-technical vocabulary", they have argued that there is no agreement upon definition for such types of vocabulary. They have stated that teaching vocabulary in ESP does not differ from that of general English courses, and that the same methods can be used for both.

### **The Central Importance of Vocabulary**

Daniels, Cole & Wertsch (2007) described language learning based on the acquisition of two types of concepts, namely, every day and scientific concepts. Everyday concepts are connected to a child's activity in everyday settings while scientific concepts are connected to "systematic symbolic systems that the child becomes acquainted with in school". Everyday concepts are related to family and community life. In contrast, scientific concepts are formed on the basis of organized and hierarchical thinking usually learned through formal schooling.

## **2.3 Related Studies**

### **Introduction**

Many related studies to this one have been conducted. Some studies have been implemented outside the Arab world whereas few related studies were conducted particularly in our country (Palestine). There are no studies concerned with scientific fields in Palestine. What distinguishes this study is that it is the most related one in both the Arab-world and the non-Arab world. There have been found the following studies:

Nur and Elsaïd (2018) investigated English language needs of teaching assistants at the University of Khartoum in Sudan. The study focuses on the most important skills which include language areas, and academic sub-skills they needed. The study also determined teaching assistants' proficiency in English. A questionnaire and a test have been applied to obtain the research data quantitatively. The results demonstrated that the skills regarded as most important are writing and speaking. Finally, participants' English language proficiency level has been found below the average in all skills. The teaching assistants needed English for their social life and academic purposes: to communicate with the outside world and to teach their students.

Another study has been conducted by Nimasari (2018). This study addressed the needs of English for informatics engineering in Muhammadiyah University of Ponorogo. The sample has included Informatics Engineering students ESP needs. This qualitative study has addressed the results of ESP needs' analysis. A questionnaire is utilized as an approach to find specific needs. Based on the analysis, it is found that speaking is the most preferred skill, followed by listening, grammar, reading, writing, and vocabulary. It can be seen that speaking is the most vivid competency students' lack.

Furthermore, Kong (2018) has conducted a study on the need analysis for medical purpose curriculum reform. The sample has been chosen randomly. It has consisted of medical students, full time teachers and medical workers. The study has adopted a questionnaire, and a semi-structured interview. The results have shown that some teachers believe that English learning should run through students' college education. This trend is suggested to focus on general English through grade four examination in the first cohort. In the second, it must focus on basic medical English by cultivating students' practical skills to lay the foundations for medical English learning. Whereas more professional English testing

processes such as English, English image, Pharmaceutical English and nursing English should be emphasized on the third semester. It is believed that students need to learn more English effectively throughout their education career so that they can increase their employment competitiveness.

In addition, Yuliia, Baklazhenko, Baklazhenko and Savchuk,. (2018 ) have conducted a study about needs' analysis of English learners in radio engineering sphere in "Igor Sikorsky Kyiv Polytechnic Institute" in Ukraine. The sample has included 2nd-5th year students the anonymous questionnaire. The results of the study have shown that most respondents have voted for improving speaking skills. A number of students have also highlighted the importance of improving translation skills, listening skills and writing skills and less interested in learning vocabulary and grammar. The results have emphasized on the increasing need to concentrate on IT topics and to introduce modern IT tools of teaching and learning.

Moreover, Ampa and Quraisy (2018) have identified students' learning needs for the English writing skill as the base for designing the learning materials. The samples were taken 15 % randomly from fourth semester students that consisted of (330) students. The research used a questionnaire to get responses from the students. The results showed that the learning needs for the writing skill coped with the types of paragraph development, the types of text, and components of writing skill. The types of paragraph development included the ways by definition, classification, listing, cause effect, example, and comparison. The types of text consisted of description, news items, narration, discussion, recount, and exposition. The components of writing skill contained structure, vocabulary, content, organization and mechanic.

Ratminingsih, Suardana and Martin (2018) conducted need analysis of English for specific purposes for local tour guides in two villages in Buleleng regency. This study is a descriptive qualitative involving tour guides, in which (30) were based in Ambengan village and (26) others were posted in Sambangan village. There were three instruments applied to obtain the research data such as observation sheet, questionnaire, and interview guide. The results showed that both groups had low speaking skill even the rest of them understood English, but was not able to speak English at all. Furthermore, they all required oral English, speaking and listening as the most important learning experience.

In addition, Azodi and Karimi (2017) investigated the foreign language learning needs of Iranian students studying in faculties of medicine. The sample of the study consisted of medicine students, and the results compared with other students from different universities with a different textbook. A qualitative descriptive analysis was used to obtain the data. The results indicated that the new textbook fulfills the need of students for their reading and listening skills in general and it is also more satisfying to medicine students. This study could be helpful for medical departments of universities to select their ESP textbooks more carefully.

Moreover, Djaileb and Bendiabdellah (2017) investigated the English language needs of the students in English for specific purposes. The findings have important implications for English teaching at the department of Economic Sciences. First, it is important to take into account the target learners' level of proficiency in English before starting to design the ESP program. This significantly helps in determining the study needs of the students; second, the selection of the language materials should be relevant to their future work and to future research. The inclusion of materials from the subject matter of the students will motivate them to learn English effectively. The result showed that language materials should be in line with the discourse of economic.

Furthermore, Alsamadani (2017) conducted a study to define the English language needs of students majoring in civil engineering and industrial engineering. The data of this study was collected by observation, a questionnaire, and a semi-structured interview with both ESP and subject-matter teachers at Umm Al-Qura University. Results of the data analysis offered significant insights as to the teaching of ESP course. The study revealed that receptive skills (reading and listening) were mostly focused on in ESP classes. It is also reported that writing and reading along with speaking skills were needed more than others. The data analysis helped to determine the most important language tasks in the context of engineering studies.

Izidi and Zitouni (2017) investigated the needs of the mechanical engineering students when dealing with and / or using English for ESP at the Sciences and Technology University. A questionnaire was administered through a purposive sampling. Results showed that students prefer to learn in a mixture of ESP and General English (EGP). Accordingly, speaking skill emerged as the most important area students wished to develop, and writing was the area they thought they had the least problem with.

In addition, Djebbari (2016) investigated the language needs of science and technology students at Mohamed Khider University, Biskra. The sample consisted of (110) students. Classroom observation and questionnaires were applied to obtain data. The results showed that the most needed skills are reading, writing, listening, and speaking respectively. According to Mathematics, reading skills which include reading general texts, discipline-related publications are the most needed skills in scientific books even if they do not relate to Mathematics. In addition to those skills, Mathematics' students selected writing reports, articles and writing for general purposes are also needed. Furthermore, the most important listening skills are listening and understanding speech instantly and understanding general conversations in English. Architecture's Students need reading publications and general authentic texts. In addition to that, the listening skills that needed were the ability to understand speech instantly as well as to fathom discipline-related lectures.

Another different study was developed by Ibrahim (2016) to analyze students' needs for English language, at the faculty of public and environmental health at the University of Khartoum, needs for English language. The study used a questionnaire, a proficiency test, and an interview to collect data. The study found that students need English language for academic study. The students rated their proficiency as good. All the four skills including vocabulary, grammar, and pronunciation are regarded important to students. Similarly, almost all the sub-skills are found to be important.

In addition, Indrasari (2016) revealed the needs of physics students in ESP class in Lampung. The sample of the study was physics education students and lecturers who taught ESP for physics. An interview and a questionnaire were applied to obtain the research data qualitatively. The results showed that students were weak in grammar, vocabulary, pronunciation, and listening skills. Physics students most needed requirement was grammar. Meanwhile, most students are “good” in speaking, reading, and writing. The most of what students need in learning ESP is speaking activities. None of the students said very unneeded for all the skills except writing skill.

Bouabdallah (2015) analyzed the needs of first year Master's in biology students at the University of Tlemcen, Algeria. A proficiency test, structured interviews, and a questionnaire were applied for data collection. The study showed that students considered listening, speaking, and translating texts from English to Arabic as the most important skills. Students also wanted to understand lectures in English, read and translate scientific



articles, and take part in oral discussions. Moreover, the subjects were not proficient in English Language. Writing and speaking were considered the most difficult skills for them.

Moreover, Chatsungneon (2015) conducted a study to explore the English language skills needed in academic and occupational contexts in the area of food science and technology at Agriculture University in Thailand. The participants included (45) third-year students. There were many instruments applied to get the research data such as questionnaire and interviews. The study showed that the students had low levels of English proficiency. Reading and translation were the most needed skills in their academic context, whereas speaking and listening were considered the most needed skills in the occupational context.

Alhuqbani (2014) conducted a study to evaluate the teaching of English to Saudi police cadets at King Fahd Security College in Riyadh. The sample included three groups of stakeholders. Both quantitative and qualitative methodologies were adopted in this study. Quantitative data were collected by means of a short questionnaire developed by the researcher for each group.

The analysis of the results showed that the ESP course is ineffective and inappropriate due to administrative and methodological factors. The current ESP course lacks the major principles associated with the teaching of English for specific purposes such as meeting the police cadets' actual needs and turning these needs into operational objectives that can be tested. Administratively, the three groups of stakeholders expressed their dissatisfaction with the course duration and timing.

Gozuyesil (2014) investigated the skills, among which are reading, writing, speaking and listening, highest priority for the engineering departments at Nigde University in Turkey. It also investigated the importance of specific language tasks and activities related to the skill. The sample consisted of (133) engineering students. Data were collected through questionnaires and interviews. A multi-method approach which involved both quantitative and qualitative research methods were adopted in this study. Results showed that the ability to “read lecture handouts or textbooks” was highly valued. Findings indicated that “oral interpretation of tables / graphs” and “asking questions to lecturers”, “giving a presentation and “answering the questions” were indicated as the most important tasks by the learners, along with the need for speaking in informal daily life situations and “making an interview for academic research showed the listening skills the students need.

Concerning listening skills, the need for “understanding the lectures” was established by a significant percentage of the participants.

In addition, Abuklaish (2014) conducted a study to explore the language needs of undergraduate science students in Libya. Multiple-instruments were used including questionnaires, semi-structured interviews, classroom observations and teaching materials. The questionnaires were completed by science students while the semi-structured interviews were conducted with (7) faculty members. The classroom observations were conducted with three classes namely computer Science, chemistry and ESP. The study revealed that English language is generally needed in the science settings. Moreover, it played a significant role in computer science in particular, as most of its discourses are conducted in English. However, it plays only a limited role in the teaching of chemistry and physics. The study suggests that collaboration between science disciplines and English teachers.

Shadfan (2014) investigated the perceptions of law students and instructors toward the English language skills and sub-skills necessary for studying law at Hebron University. To collect data, a quantitative method represented by the use of an adapted questionnaire was used for learners and instructors, in addition to qualitative methods represented by a semi-structured interview with the instructor of the course. The findings of the study have shown that all the suggested language skills are necessary for law students at HU giving priority to reading and writing. The study revealed the various perceptions toward the important language sub-skills. The results showed that the students have evaluated themselves to be of a high level of proficiency in vocabulary and of an average level in the other suggested language skills ordered respectively as reading, grammar, listening, writing, and speaking.

Habbash and Albakrawi (2014) identified engineering students English language needs at University of Tabuk in Saudi Arabia. The sample consisted of one hundred and fifty four students in addition to twelve teachers from the university. A questionnaire was developed by the researcher and addressed to the sample. The results showed that the four basic language skills are ordered in regard to their importance; reading, writing, listening and speaking respectively. The study also showed that the listening exercises needed are listening to one person talking and listening to orders and instruction. In speaking, the results showed that the speaking-related activities should include two conversant and one person addressing a group (lecturing, giving instructions to a group). In reading, the results

showed that the reading activities include reading advertisements, instructions, brochures, tables, graphic, charts, lists and tablets.

Boroujeni and Fard (2013) conducted a study to discover the learning needs of Iranian university students to assess the implementation of Communicative Language Teaching in ESP context. Two different questionnaires were used as instruments of data (The students' questionnaire-attitude and beliefs) and (The teachers' questionnaire). The results of the data analysis revealed that students' learning needs and styles supported the adoption of Communicative Language Teaching and Method. Professors' attitude towards Communicative Language Teaching was also investigated and the presence of a positive attitude was established. It also found that the students need to learn all the four skills of language as compared to grammar and vocabulary. Speaking is more preferred as compared to the skills of listening, reading and writing.

Qaddomi (2013) conducted a study to determine EFL cadets' needs at Al-Istiqlal University in Palestine. The study was conducted on a random sample of 91 cadets. The findings showed that Al-Istiqlal University cadets' level in EFL is intermediate. Also, results showed that cadets' needs of EFL gained a very important level. Moreover, results indicated that the most serious difficulty which faces the cadets, as they perceive future workplace, in learning EFL is following English conversations. In addition, results revealed that there were significant differences in AU cadets EFL needs on all domains in favor of Police Sciences, Military Sciences, over the Psychology Security due to major variable.

Alastal and Shuib (2012) conducted a study to identify the academic English language target needs of the undergraduates of the faculty of applied science at Al-Aqsa University. This study surveyed the perceptions of 180 students. An adapted questionnaire was used. The findings of the study showed that English language is largely used in the process of learning/teaching. According to students' perceptions, the most important academic English language skill for the students' study is reading comprehension, followed by listening comprehension, and then writing. In addition, the most important academic English language sub skills for the 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.

In another study by Al-Tamimi and Shuib (2010) conducted to investigate the English language needs of petroleum engineering students at Hadhramout University of Science and Technology. the study aimed 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. The target student population in this study was all the students who studied in the in the department of petroleum Engineering. A questionnaire was used for data collection. The results stressed listening skills have been perceived to be the most frequently used skill by the students, followed by writing and reading. On the other hand, speaking skills have been viewed by the students to be the least frequently used skill, as such skills received the lowest mean scores. Among the sub-skills of listening, it was found that following lectures and listening to instructions for assignments were perceived to be most often used. The remaining listening sub-skills, i.e. listening to instructions and explanations in labs, followed by question/answer sessions in class and listening to spoken presentations were viewed to be used less. Regarding reading sub-skills, the results indicated that the most frequently used skill was reading course handouts followed by reading study notes, reading textbooks, reading instructions for labs, reading instructions for assignments/projects, and reading texts on the computer. On the other hand, the least frequent reading sub-skills used are reading technical articles in journals and reading technical manuals. For the writing sub-skills, the results showed that the students often write assignments and lab reports, and they sometimes write test/exam answers and take notes in lectures. However, they viewed writing projects and field-trip reports to be the least frequent sub-skills used.

### **2.3.2 Similarities and differences between previous studies**

The various related mentioned above are modern studies. Some of which are Arabs and others are none. Few of them are Palestinians. Also, there are similarities and differences between them referring to various aspects such as; aims, procedures, populations, samples, analysis and results .The following points show facts about the previous studies. Most of the previous studies were conducted on the students in universities and all of them aimed at analyzing English language needs in English for specific purposes in various scientific faculties. Some of them applied on engineering specification which are (Nismari, 2018), (Yuliia, Baklazhenko, Baklazhenko and Savchuk,. 2018 ), (Izidi, 2017), (Gozuyesil, 2014), and most of them were on one or two faculties only such as (Djebbari, 2016) which only

conducted on science and technology. All of them used a questionnaire as an instrument. Others used questionnaire and other instruments such as observation and structured or semi-structured interviews and tests. Also, these studies used bi-descriptive analysis (qualitative, quantitative or both). These studies analyzed the data quantitatively like in (Nur and Elsaid, 2018), (Nimasari, 2018), (Yuliia, Baklazhenko, Baklazhenko and Savchuk,. 2018 ) and (Ampa and Quraisy, 2018). However, (Kong, 2018), (Ratminingsih, Suardana and Martin, 2018), (Al- samadani, 2017) and (Djebbari, 2016) used a mixture of both descriptive analysis. On the other hand, (Azodi and Karimi, 2017) study was used qualitatively. Mix Descriptive analysis ways are suitable for needs' analysis.

## **Chapter Three**

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### **Methods and Procedures**

#### **3.1 Introduction**

This chapter is dedicated to the design and methods, the population and subjects, research instruments, reliability and validity of the instruments, data collection procedures and finally program description and implementation.

#### **3:2 Population of the study**

The population of this study is divided into two, the first consisted of scientific students at Al-Quds university which are (5052), distributed into (1812) males and (3240) females. The second consisted of scientific academic staff at the same faculties which are (141). Both students and academic staff were at Al-Quds University in the first semester of the academic year (2018/2019).

#### **3.3 Sample of the Study**

The researcher chose two samples in the manner of stratified random according to the population of the study. The first sample presented scientific students, while, the second sample presented scientific academic staff at Al-Quds university as the following:

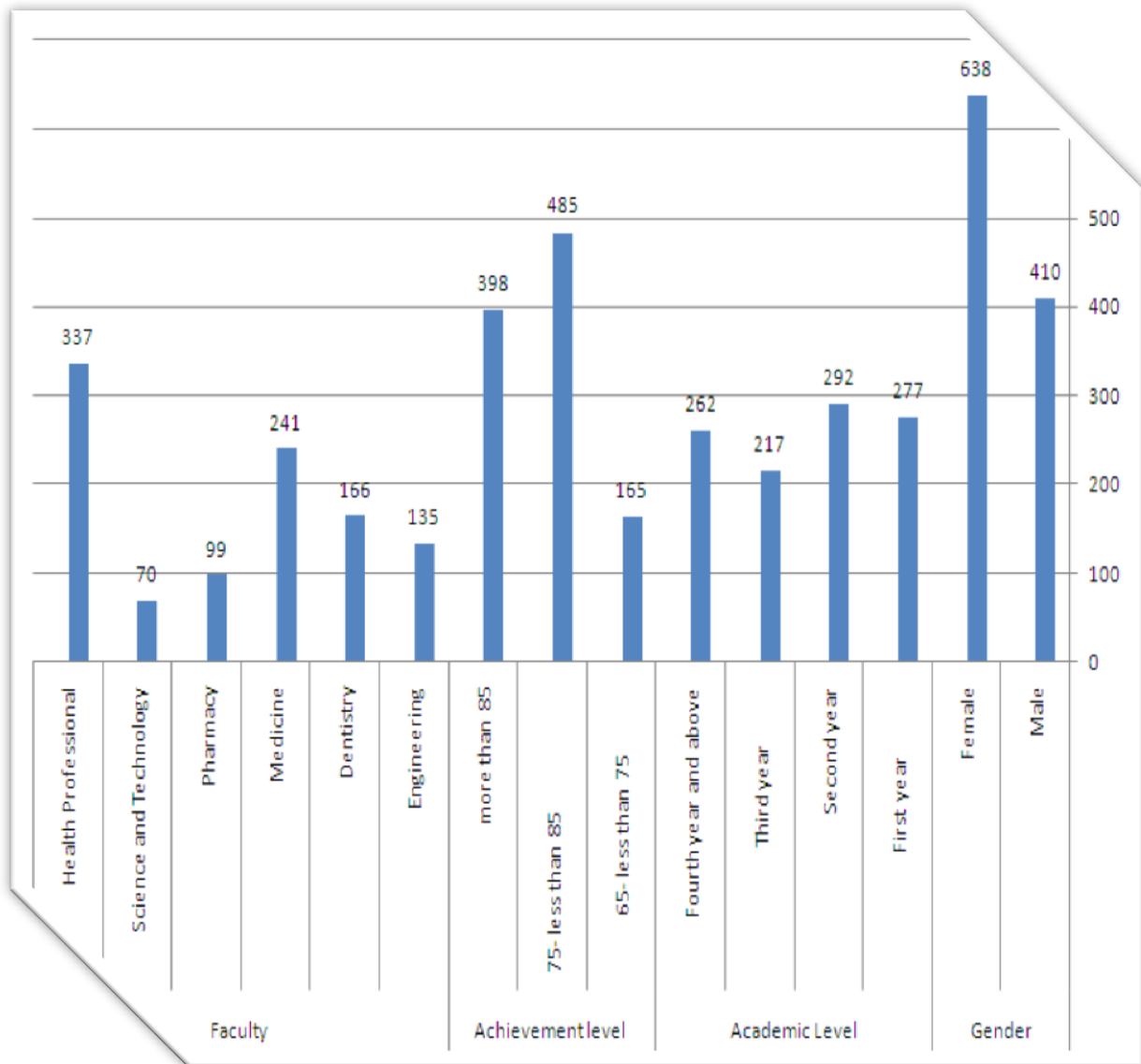
##### **3.3.1 Sample of students**

The sample of the study consisted of (1048) students at the scientific faculties at Al-Quds University in the first semester of the academic year (2018/2019). The sample distributed according to the independent variables of: Gender, academic level, achievement level and faculty. as shown in the table (3.1).

**Table (3.1): Students' sample distribution according to gender, academic level, achievement level and faculty.**

<b>Students' Sample</b>			
<b>Variables</b>	<b>Level</b>	<b>Number</b>	<b>Percentage(%)</b>
<b>Gender</b>	Male	410	39.1
	Female	638	60.9
<b>Total</b>		<b>1048</b>	<b>100%</b>
<b>Academic Level</b>	First year	277	26.4
	Second year	292	27.9
	Third year	217	20.7
	Fourth year and above	262	25.0
<b>Total</b>		<b>1048</b>	<b>100%</b>
<b>Achievement level</b>	65- less than 75	165	15.7
	75- less than 85	485	46.3
	more than 85	398	38.0
<b>Total</b>		<b>1048</b>	<b>100%</b>
<b>Faculty</b>	Engineering	135	12.9
	Dentistry	166	15.8
	Medicine	241	23.0
	Pharmacy	99	9.4
	Science and Technology	70	6.7
	Health Professional	337	32.2
<b>Total</b>		<b>1048</b>	<b>100%</b>

Figure (3.1) shows students' sample distribution.



**Figure (3.1) Students' sample distribution according to gender, academic level, achievement level and faculty.**

### 3.3.2 Sample of academic staff

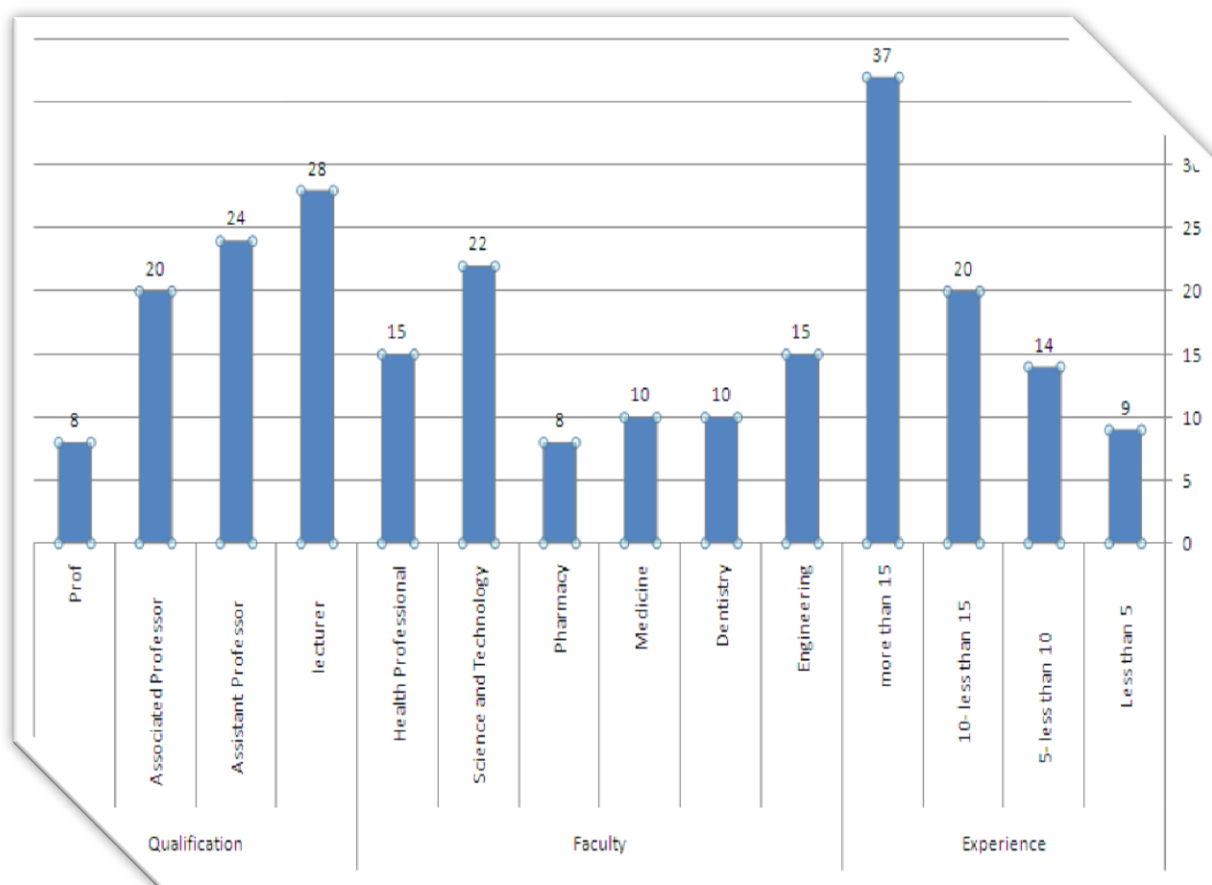
The sample of the study consisted of (80) academic staff at the scientific faculties at Al-Quds University in the first semester of the academic year (2018/2019). The sample distributed according to the independent variables of: Experience, faculty and qualification. as shown in the table (3.2).



**Table (3.2): academic staff's sample distribution according to experience, faculty and qualification.**

<b>Academic staff's Sample</b>			
<b>Experience</b>	Less than 5	9	11.25
	5- less than 10	14	17.5
	10- less than 15	20	25.0
	more than 15	37	46.25
<b>Total</b>		<b>80</b>	<b>100%</b>
<b>Faculty</b>	Engineering	15	18.75
	Dentistry	10	12.5
	Medicine	10	12.5
	Pharmacy	8	10.0
	Science and Technology	22	27.5
	Health Professional	15	18.75
<b>Total</b>		<b>80</b>	<b>100%</b>
<b>Qualification</b>	lecturer	28	35.0
	Assistant Professor	24	30.0
	Associated Professor	20	25.0
	Prof	8	10.0
<b>Total</b>		<b>80</b>	<b>100%</b>

Figure (3.2) shows academic staff's sample distribution



**Figure (3.2): academic staff's sample distribution according to experience, faculty and qualification.**

### 3.4 Instruments of the Study

The researcher developed the following instruments to achieve the purpose of the study:

#### 3.4.1 Students' questionnaire

In this study, a students' questionnaire was adopted from (Abuklaish, 2014), and (Shadfan, 2014), and then developed to suit the situation to measure English foreign language needs for undergraduate students in scientific faculties from students' point of view. The questionnaire consisted of (3) sections with (42) items. Section (A) contained a cover page which contains the researcher's letter and personal data. Section (B) contained items about assessing English Language needs at the scientific faculties. Section (C) contained items about students' needs. The researcher developed the

questionnaire in the form of a five point Likert scales ranging from very high degree to very low degree. (See appendix I)

### **3.4.2 Academic staff's questionnaire**

In this study, the academic staff's questionnaire was adopted from (Abuklaish, 2014), and (Shadfan, 2014) and then developed to suit the situation to measure English foreign language needs for undergraduate students in scientific faculties from academic staff's point of view. The questionnaire consisted of (3) sections with (42) items. Section (A) contained a cover page which contains the researcher's letter and personal data. Section (B) contained items about assessing English Language needs at the scientific faculties. Section (C) contained items about students' needs. The researcher developed the questionnaire in the form of a five point Likert scales ranging from very high degree to very low degree. (See appendix II)

### **3.4.3 Academic staff's Interview**

The interview questions were derived from the main ideas of the questionnaire. It was constructed to measure English foreign language needs for undergraduate students in scientific faculties. The interview schedule was structured, with open-ended questions to let the participants express their thoughts and ideas individually. The data collected for this research was voice recorded with face-to-face interviews in a quiet space, and then transcribed for data analysis. The interview were designed to draw out certain aspects of teaching in relation to needs. (See appendix V)

## **3.5 Validity of the Instruments**

In the present study an attempt was made to gain valid and meaningful data. Firstly, the content of the study questionnaire was discussed with my academic staff. Some changes and improvements were made. In addition, the questionnaire was designed to avoid individually identifiable information and the layout and completion limit of the questionnaire were given special attention. Secondly, students', academic staff's questionnaires, and Academic staff's interviews were handed to fifteen professional arbitrators with different qualifications in the field at Al-Quds and other universities. (See appendix VI). They evaluated the content of the questionnaires and interview in terms of relevance and appropriateness to the research purposes. Their comments were incorporated

in the final version of the questionnaire and interview. Then, both of questionnaires were translated into Arabic language in order to avoid misunderstanding of their items and giving consideration at every stage of the questionnaire development. The Arabic version of the questionnaires were given to an Arabic linguistic to judge the accuracy and appropriateness of both the meaning and the structure of the items used in the questionnaires. The comments she gave were incorporated in the final Arabic version of the questionnaire, bilingual questionnaires were developed, because of the specific English context and research aims and questions.

The questionnaires were distributed to the participants in the final Arabic version, (See appendix III, IV.) except the interview which was in English language.

### **3.6 Reliability of the Instruments**

#### **3.6.1 Questionnaire of students:**

The researcher verified the reliability of the instrument by testing the means of a pilot study which consisted of (25) students at the scientific faculty, and calculating the reliability of the total degree according to the reliability co-efficient equation Cronbach alpha for the domains of the study. The total score of the extent of English foreign language needs for undergraduate students in scientific faculties from students point of view was (0.952). Based on this finding, the questionnaire developed was considered a reliable instrument, so, this instrument consistently meets the purposes of the study. Table (3.3) shows the reliability coefficient for the domains and their total score.

**Table (3.3): Reliability co-efficient for students' questionnaire domains.**

<b>Domain</b>	<b># Item</b>	<b>Reliability</b>
Listening	7	0.854
Speaking	7	0.845
Reading	7	0.830
Writing	8	0.835
Grammar	6	0.884
Vocabulary	7	0.887
<b>Total score</b>	<b>42</b>	<b>0.952</b>

### **3.6.2 Questionnaire of academic staff**

The researcher verified the reliability of the instrument by testing means of a pilot study, and calculating the reliability of the total degree of reliability co-efficient for the domains of the study according to the reliability equation Cronbach alpha. The total score of English foreign language needs for undergraduate students in scientific faculties from academic staff's point of view was (0.958). Based on this finding, the questionnaire developed was considered a reliable instrument. So, this instrument consistently meets the purposes of study. Table (3.4) shows the reliability co-efficient for the domains and their total score.

**Table (3.4): Reliability co-efficient for Academic Staff's questionnaire domains.**

<b>Domain</b>	<b># Item</b>	<b>Reliability</b>
Listening	7	0.889
Speaking	7	0.833
Reading	7	0.878
Writing	8	0.873
Grammar	6	0.920
Vocabulary	7	0.874
<b>Total score</b>	<b>42</b>	<b>0.958</b>

### 3.6.3 Interview of academic staff:

The researcher verified the reliability of the interview by :

**Inter rater reliability:** The researcher trained a teacher on how to interview a random sample of academic staff and to record their answers. The researcher had the same interview and recorded the answers, then calculated the coefficient of the agreement between the observations recorded by the researcher and the trainee teacher's notes, then the researcher used (Cooper formula) to calculate the agreement coefficient between the answers. The percentage of the agreement was (87%). And it's a high indicator of the reliability of the interview instrument using (Cooper formula) as the following:

$$\text{Percentage of reliability} = \frac{\text{Number of agreed answers}}{(\text{Number of agreed answers}) + (\text{Number of different answers})} * 100\%$$

**Intra rater reliability:** The researcher recorded the interview using a recording tool and heard it at other times and recorded the responses, then compared these responses with recorded observations previously. The agreement coefficient was calculated between the two cases, and the percentage of agreement was (92%) and it's a high indicator of the reliability of the interview instrument using (Cooper formula).

### **3.7 Design of the study**

This study employed the descriptive method by using both quantitative and qualitative research instruments (two questionnaires and an interview) in order to combine detailed descriptions and numerical explanations of collected data. The researcher adopted this method due to its relevance and suitability to the purpose of the study.

### **3.8 Variables of the Study**

#### **3.8.1 Independent Variables**

##### **3.8.1.1 For students' questionnaire**

**A) Gender:** which has two levels: (male, female)

**B) Academic level:** which has four levels: (first year, second year, third year, fourth year and above)

**C) Achievement level:** which has three levels: (65- less than 75, 75- less than 85, more than 85)

**D) Faculty:** which has six levels: (engineering, dentistry, medicine, pharmacy, science - technology and health professional).

##### **3.8.2.2 For Academic staff's questionnaire:**

**A) Experience:** which has four levels: (Less than 5, 5- less than 10, 10- less than 15, more than 15)

**B) Faculty:** which has six levels: (engineering, dentistry, medicine, pharmacy, science - technology, health and professional)

C) **Qualification:** which has four levels: (lecturer, assistant professor, associated professor, professor).

### 3.8.2 **Dependent variables:**

English foreign language needs for undergraduate students in scientific faculties from students' and academic staff's point of view.

### 3.9 **Procedures of the study**

The researcher implemented the following procedures to carry out this study:

1. Getting a facilitate mission from Al-quds university. **(See appendix VII).**
2. Determining the population of the study which was limited to students and academic staff in scientific faculties at Al-quds university.
3. Choosing the sample of the study which was limited to students and academic staff in scientific faculties at Al-quds university: in the manner of stratified random.
4. Adopting and developing two questionnaires; the first is for students, the second is for academic staff.
5. Formulating seven interviews' questions for academic staff. **(See appendix V).**
6. Verifying validity of two instruments by displaying them to number of academic staff and experts in the field, and testing the reliability of questionnaires by using equation Cronbach Alpha.
7. Collecting data by distributing questionnaires on the sample of the study (students and academic staff).
8. Interviewing eight academic staff from different scientific faculties at university individually.
9. Predestining and identifying findings of the study.
10. Discussing and explaining the findings, then, writing recommendations and suggestions.

### 3.10 **Data Analysis**

In order to analyze the data, the researcher used statistical techniques, Statistical Package for Social Science (SPSS), descriptive statistics (means, frequencies, percentage and Std. Deviation), analytical statistics (Independent t-test, one way ANOVA and Cronbach Alpha and LSD).



### 3.11 Correction Key

To determine the degree of response means of the study participants, the following levels have been adopted:

**Table (3.5) The degree of means of the study's participants.**

<b>Level</b>	<b>Mean</b>
Very low	1.00 – 1.80
Low	1.81 – 2.60
Average	2.61 – 3.40
High	3.41 – 4.20
Very high	4.21 – 5.00

## **Chapter Four**

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### **Findings of the study**

#### **4.1 Introduction**

The purpose of this study was to determine English foreign language needs for undergraduate students in scientific faculties from students' and academic staff's point of view. The findings of the study are presented in this chapter according to the research questions.

#### **4.2 Results related to the main question**

**What are English foreign language needs for undergraduate students in scientific faculties from students' and academic staff's point of view?**

To answer this question, means and standard deviation scores for the study sample responses on English foreign language needs for undergraduate students in scientific faculties from students' and academic staff's point of view were calculated, as shown in table (4.1).

**Table (4.1): Means and standard deviations for the English foreign language needs for undergraduate students in scientific faculties from students' and academic staff's point of view.**

Item	Mean	standard deviations	Degree
Students	4.00	0.554	high
Academic Staff	4.47	0.405	Very high

It has been noted from table (4.1) that the means and standard deviations scores of English foreign language needs for undergraduate students in scientific faculties from students' point of view are high degree with a mean of (4.00), and from academic staff's point of view are very high with a mean of (4.47) .

#### **4.2.1 Results related to the sub-questions**

##### **4.2.1.1 Results related to the first sub- question**

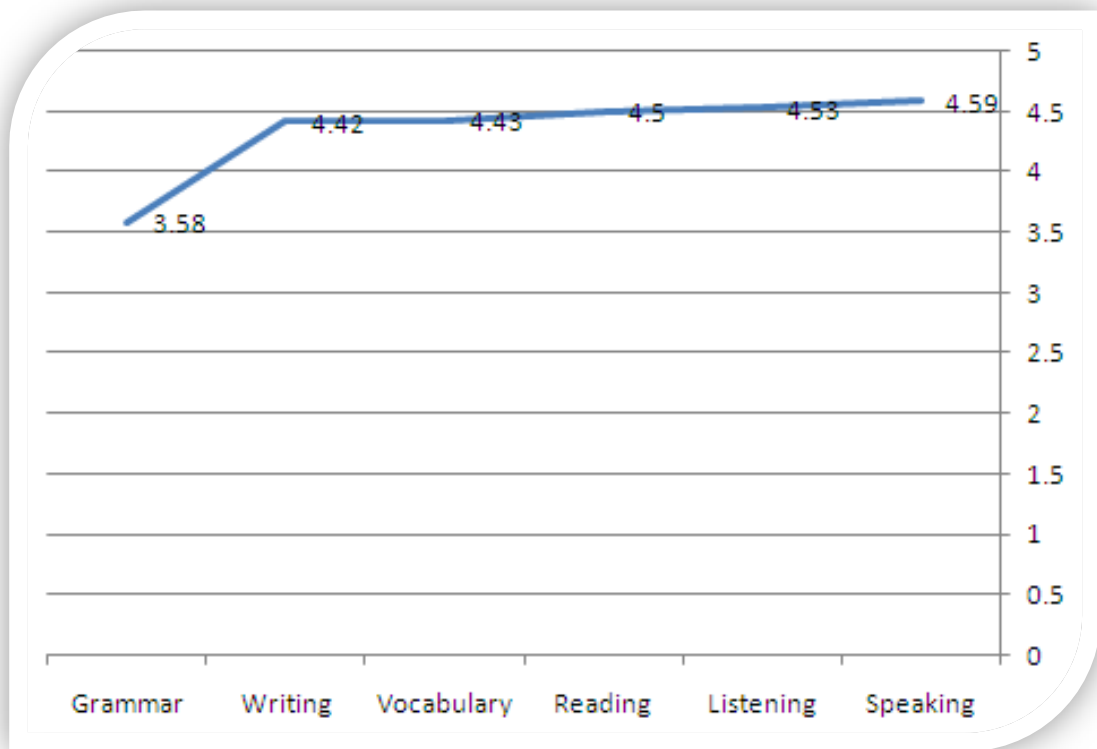
##### **Q.1) What are the most important English foreign language needs at the scientific faculties from students' point of view?**

To answer this question, means and standard deviation scores for the study sample responses on the most important English foreign language needs at the scientific faculties from students' point of view were calculated, as shown in table (4.2).

**Table (4.2): Means and standard deviations for the study sample responses to the most important English foreign language needs at the scientific faculties from students' point of view.**

<b>Ordinal</b>	<b>Domain</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	Speaking	4.59	0.632	Very high
2	Listening	4.53	0.603	Very high
3	Reading	4.50	0.702	Very high
4	Vocabulary	4.43	0.798	Very high
5	Writing	4.42	0.687	Very high
6	Grammar	3.58	1.046	high

It has been noted from table (4.2) that the means and standard deviations scores of the most important English foreign language needs at the scientific faculties from students' point of view are very high. And the most important English foreign language needs at the scientific faculties from students is speaking with a mean of (4.59) and a standard deviation of (0.632), followed by listening with a mean of (4.53) and a standard deviation of (0.603), reading with a mean of (4.50) and a standard deviation of (0.702), followed by vocabulary with a mean of (4.43) and a standard deviation of (0.798), writing with a mean of (4.42) and a standard deviation of (0.687), but the lowest important English foreign language needs at the scientific faculties from students' point of view is grammar with a mean of (3.58) and a standard deviation of (1.046). Figure (4.1) explained that:



**Figure (4.1): Means for the study sample responses to the most important English foreign language needs at the scientific faculties from students' point of view.**

#### **4.2.2.2 Results related to the second sub-question**

**Q.2) What are English foreign language needs for undergraduate students in scientific faculties from students' point of view?**

To answer this question, means and standard deviation scores for the English foreign language needs for undergraduate students in scientific faculties from students' point of view were calculated, as shown in table (4.3).

**Table (4.3): Means and standard deviations for the English foreign language needs for undergraduate students in scientific faculties from students' point of view.**

<b>Ordinal</b>	<b>Domain</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	Vocabulary	4.15	0.704	high
2	Listening	4.14	0.643	high
3	Speaking	3.97	0.686	high
4	Reading	3.96	0.699	high
5	Writing	3.92	0.661	high
6	Grammar	3.87	0.802	high
<b>Total Score</b>		<b>4.00</b>	<b>0.554</b>	<b>high</b>

It has been noted from table (4.3) that the means and standard deviations scores of the English foreign language needs for undergraduate students in scientific faculties from students' point of view that the overall mean value is(4.00) and the standard deviation is (0.554) and this shows the degree is high. And the highest need is vocabulary with a mean of (4.15) and a standard deviation of (0.704), followed by listening with a mean of (4.14) and a standard deviation of (0.643), speaking with a mean of (3.97) and a standard deviation of (0.686), reading with a mean of (3.96) and a standard deviation of (0.699), writing with a mean of (3.92) and a standard deviation of (0.661), but the lowest need is grammar with a mean of (3.87) and a standard deviation of (0.802).

Means and standard deviations scores of the study sample responses to questionnaire items were calculated that reflect the listening needs domain, as shown in table (4.4).

**Table (4.4): Means and standard deviation scores for the study sample responses to listening needs domain.**

<b>Ordinal</b>	<b>Listening needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	understand scientific terms.	4.42	0.779	Very high
2	comprehend scientific texts.	4.40	0.734	Very high
3	understand specialized scientific questions	4.37	0.814	Very high
4	understand specialized scientific lectures	4.27	0.802	Very high
5	understand specialized scientific seminars.	3.95	0.962	high
6	comprehend oral presentations in the fields of science.	3.87	1.009	high
7	interact in specialized scientific conferences.	3.71	1.017	high
<b>Total Score</b>		<b>4.14</b>	<b>0.643</b>	<b>high</b>

Data shown from the table (4.4) reveals that the overall mean value of the listening needs domain has (4.14) and std. deviation has (0.643), which indicates that the degree is high, and the most highest item is " understand scientific terms " has the mean score(4.42). Then the item " comprehend scientific texts" has the mean score (4.40). Followed by the item" comprehend oral presentations in the fields of science" which has got (3.87). The item " interact in specialized scientific conferences " has got the lowest mean score (3.71).

Means and standard deviations scores of the study sample responses to questionnaire items were calculated that reflect the speaking needs domain. As shown in table (4.5)

**Table (4.5): Means and standard deviation scores for the study sample responses to speaking needs domain.**

<b>Ordinal</b>	<b>Speaking needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	use scientific terminology relevant to specialization.	4.34	0.840	Very high
2	speak in specialized scientific terms and concepts in English.	4.08	0.911	high
3	interact with specialists in the scientific field.	4.07	0.935	high
4	discuss specialized scientific topics in English.	4.01	1.008	high
5	express information and data to foreigners who have connection to the field of specialization.	3.99	0.935	high
6	ask questions pertaining to scientific field.	3.82	0.969	high
7	use non-specialized terminology in English.	3.47	1.064	high
<b>Total Score</b>		<b>3.97</b>	<b>0.686</b>	<b>high</b>

Data shown from the table (4.5) reveals that the overall mean value of the speaking needs domain has (3.97) and std. deviation has (0.686), which indicates that is high, and the highest item is "use scientific terminology relevant to specialization" has the mean score(4.34). Then the item "speak in specialized scientific terms and concepts in English " has the mean score (4.08). Followed by the item" ask questions pertaining to scientific field "which has got (3.82).The item " use non-specialized terminology in English" has got the lowest mean score (3.47).

Means and standard deviations scores of the study sample responses to questionnaire items were calculated that reflect the reading needs domain, as shown in table (4.6).



**Table (4.6): Means and standard deviation scores for the study sample responses to reading needs domain.**

<b>Ordinal</b>	<b>Reading needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	comprehend terminologies related to scientific topics.	4.38	0.803	Very high
2	carry out specialized scientific assignments.	4.00	0.952	high
3	analyze specialized scientific courses.	3.98	0.898	high
4	understand materials related to specialization.	3.98	0.902	high
5	understand specialized scientific researches and journals.	3.98	0.975	high
6	understand specialized scientific publications.	3.88	0.978	high
7	understand terms which are not related to the field of specialization.	3.51	1.353	high
<b>Total Score</b>		<b>3.96</b>	<b>0.699</b>	<b>high</b>

Data shown from the table (4.6) reveals that the overall mean value of the reading needs domain has (3.96) and std. deviation has (0.699), which indicates that is high, and the highest item is "comprehend terminologies related to scientific topics" has the mean score(4.38). Then the item " carry out specialized scientific assignments" has the mean score (4.00). Followed by the item" understand specialized scientific publications "which has got (3.88). The item "understand terms which are not related to the field of specialization" has got the lowest mean score (3.51).

Means and standard deviations scores of the study sample responses to questionnaire items were calculated that reflect the writing needs domain, as shown in table (4.7).

**Table (4.7): Means and standard deviation scores for the study sample responses to writing needs domain.**

<b>Ordinal</b>	<b>Writing needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	write specialized scientific reports.	4.10	0.883	high
2	take specialized scientific notes.	4.04	0.996	high
3	write answers to the exam questions.	4.00	1.042	high
4	write specialized scientific articles.	3.99	0.888	high
5	write their field of specialized assignments.	3.94	1.018	high
6	Write scientific research papers.	3.86	1.012	high
7	Write brief specialized scientific data.	3.80	0.919	high
8	write general scientific articles.	3.64	0.992	high
<b>Total Score</b>		<b>3.92</b>	<b>0.661</b>	<b>high</b>

Data shown from the table (4.7) reveals that the overall mean value of the writing needs domain has (3.92) and std. deviation has (0.661), which indicates that is high, and the highest item is "write specialized scientific reports" has the mean score (4.10). Then the item "take specialized scientific notes" has the mean score (4.04). Followed by the item "Write brief specialized scientific data" which has got (3.80).The item "write general scientific articles" has got the lowest mean score (3.64).

Means and standard deviations scores of the study sample responses to questionnaire items were calculated that reflect the grammar needs domain, as shown in table (4.8).

**Table (4.8): Mean and standard deviation scores for the study sample responses to grammar needs domain.**

<b>Ordinal</b>	<b>Grammar needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	write valid sentences with full meaning in the field of specialization.	4.10	0.959	high
2	understand what they hear in the specialized scientific fields	4.00	0.976	high
3	join specialized scientific sentences and paragraphs.	3.94	0.964	high
4	speak about specialized scientific fields.	3.78	0.940	high
5	use verb tenses in their correct form with reference to the time of occurrence.	3.75	1.107	high
6	use connective pronouns in specialized structural compositions	3.65	1.086	high
<b>Total Score</b>		<b>3.87</b>	<b>0.802</b>	<b>high</b>

Data shown from the table (4.8) reveals that the overall mean value of the grammar needs domain has (3.87) and std. deviation has (0.802), which indicates that is high, and the highest item is " write valid sentences with full meaning in the field of specialization" has the mean score(4.10). Then the item " understand what they hear in the specialized scientific fields" has the mean score (4.00). Followed by the item " use verb tenses in their correct form with reference to the time of occurrence" which has got (3.75).The item "use connective pronouns in specialized structural compositions" has got the lowest mean score (3.65).

Means and standard deviations scores of the study sample responses to questionnaire items were calculated that reflect the vocabulary needs domain, as shown in table (4.9)

**Table (4.9): Means and standard deviation scores for the study sample responses to vocabulary needs domain.**

<b>Ordinal</b>	<b>Vocabulary needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	facilitate the understanding of specialized practical texts.	4.39	0.803	Very high
2	understand the speech of specialized scientific lectures.	4.22	0.894	Very high
3	respond to the specialized scientific questions	4.14	0.906	high
4	write specialized scientific reports.	4.11	0.895	high
5	elicit specialized scientific information	4.11	0.943	high
6	search the English web-sites containing specialized scientific information.	4.10	1.013	high
7	talk about specialized scientific fields	3.97	0.921	high
<b>Total Score</b>		<b>4.15</b>	<b>0.704</b>	<b>high</b>

Data shown from the table (4.9) reveals that the overall mean value of the vocabulary needs domain has (4.15) and std. deviation has (0.704), which indicates that is high, and the highest item is " facilitate the understanding of specialized practical texts" has the mean score(4.39). Then the item " understand the speech of specialized scientific lectures" has the mean score (4.22). The item " talk about specialized scientific fields" has got the lowest mean score (3.97). Followed by the item "search the English web-sites containing specialized scientific information" which has got (4.10).

#### 4.2.2.3 Results related to the third sub question

**Q.3) Are there any significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to (gender, academic level, achievement level and faculty)?**

To answer this question it was turned into the following (forth, fifth, sixth and seventh) null hypotheses:

##### **Results of the first hypothesis**

**There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to gender.**

The first hypothesis was examined by using an independent (t) - test, as shown in table (4.10)

**Table (4.10): The results of independent t- test for the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to gender.**

<b>Gender</b>	<b>No.</b>	<b>Mean</b>	<b>Std. deviation</b>	<b>t</b>	<b>Sig</b>
Male	410	3.95	0.545	-2.262	0.024
Female	638	4.03	0.559		

The table (4.10) shows that the value of "t" for the total score is (-2.262), and the level of significance is (0.024). This means, there are statistical significant differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to gender, and the degree is high with a mean of (4.03) for females.

### Results of the second hypothesis

There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level.

The second hypothesis was examined by calculating the means and deviation scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level, as shown in table (4.11).

**Table (4.11): Means and standards deviations scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level.**

Academic Level	No.	Mean	Std Deviation
Second year	292	3.98	0.540
Third year	217	3.99	0.515
Fourth year and above	262	4.05	0.567

Table (4.11) shows that there are apparent differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level. To check these differences, one way ANOVA was applied using test data as, shown in the table (4.12).

**Table(4.12): One way ANOVA results for the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level.**

Variance source	Sum of squares	Df	Mean square	F	Sig
Between groups	0.673	2	0.336	1.099	0.334
Within groups	235.122	768	0.306		
Total	235.795	770			

From table (4.12), it can be noticed that F value for the total degree is (1.099), and the significant level is (0.334), and it is more than the significant level ( $\alpha \leq 0.05$ ). Thus, there are no significant differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level.

### **Results of the third hypothesis**

**There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level.**

The third hypothesis was examined by calculating the means and deviation scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level, as shown in table (4.13).

**Table (4.13): Means and standard deviation scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level.**

<b>Achievement level</b>	<b>No.</b>	<b>Mean</b>	<b>Std Deviation</b>
65 – less than 75	142	4.00	0.603
75 – less than 85	389	3.98	0.572
More than 85	240	4.06	0.486

Table (4.13) shows that there are apparent differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level. To check these differences, one way ANOVA was applied using test data, as shown in the table (4.14).

**Table (4.14): Results of one way ANOVA test for the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level.**

Variance source	Sum of squares	Df	Mean square	F	Sig
<b>Between groups</b>	0.918	2	0.459	1.500	0.224
<b>Within groups</b>	234.878	768	0.306		
<b>Total</b>	235.796	770			

From table (4.14), it can be noticed that F value for the total degree is (1.500), and the significant level is (0.224), and it is more than the significant level ( $\alpha \leq 0.05$ ). Thus, there are no significant differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level.

#### **Results of the fourth hypothesis**

**There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty.**

The fourth hypothesis was examined by calculating the means and deviation scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty.



**Table (4.15): Means and standard deviation scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty.**

Faculty	No.	Mean	Std Deviation
Engineering	135	3.81	0.445
Dentistry	166	4.02	0.618
Medicine	241	4.10	0.539
Pharmacy	99	4.05	0.668
Science and Technology	70	3.91	0.599
Health professional	337	4.00	0.506

Table (4.15) shows that there are apparent differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty. To check these differences, one way ANOVA was applied using test data, as shown in the table(4.16).

**Table (4.16): Results of one way ANOVA test for the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty.**

Variance source	Sum of squares	Df	Mean square	F	Sig
Between groups	8.016	5	1.603	5.320	0.001*
Within groups	313.993	1042	0.301		
Total	322.009	1047			

\*( $\alpha \leq 0.05$ )

From the table (4.16), it can be noticed that F value for the total degree is (5.320), and the significant level is (0.001), and it is less than the significant level ( $\alpha \leq 0.05$ ). Thus, there are significant differences in the scores of responses of undergraduate students in scientific

faculties at Al- Quds university towards English language needs due to faculty for medicine.

The results of the (LSD) test were examined to show the direction of the differences as shown in table (4.17).

**Table (4.17): LSD post-hoc test for faculty.**

<b>Variables</b>	<b>Faculty</b>	<b>Differences in means</b>	<b>Sig</b>
Engineering	Dentistry	-0.2098*	0.001
	Medicine	-0.2865*	0.000
	Pharmacy	-0.2343*	0.001
	Science and Technology	-0.0942	0.244
	health professional	-0.1893*	0.001
Dentistry	Engineering	0.2098*	0.001
	Medicine	-0.0766	0.167
	Pharmacy	-0.0245	0.725
	Science and Technology	0.1156	0.140
	health professional	0.0205	0.694
Medicine	Engineering	0.2865*	0.000
	Dentistry	0.0766	0.167
	Pharmacy	0.0522	0.426
	Science and Technology	0.19239	0.010
	health professional	0.0972*	0.036
Pharmacy	Engineering	0.2343*	0.001
	Dentistry	0.0245	0.725
	Medicine	-0.0522	0.426
	Science and Technology	0.1401	0.102
	health professional	0.0450	0.474

Science and Technology	Engineering	0.0942	0.244
	Dentistry	-0.1156	0.140
	Medicine	-0.1923*	0.010
	Pharmacy	-0.1401	0.102
	health professional	-0.0951	0.187
Health professional	Engineering	0.1893*	0.001
	Dentistry	-0.0205	0.694
	Medicine	-0.0972*	0.036
	Science and Technology	-0.0450	0.474
	Science and Technology	0.0951	0.187

Table (4-17) reveals that there are significant differences between the mean values among those who are in engineering and all faculties in the study, and the differences referred to all faculties (Dentistry, Medicine, Pharmacy, Science and Technology, health professional), and also the differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty coming between science - technology and medicine referring to medicine faculty. Finally, the differences coming between of health professional and engineering, medicine, thus, differences are referring to health professional firstly and medicine secondly.

#### 4.2.2.4 Results related to the fourth sub question

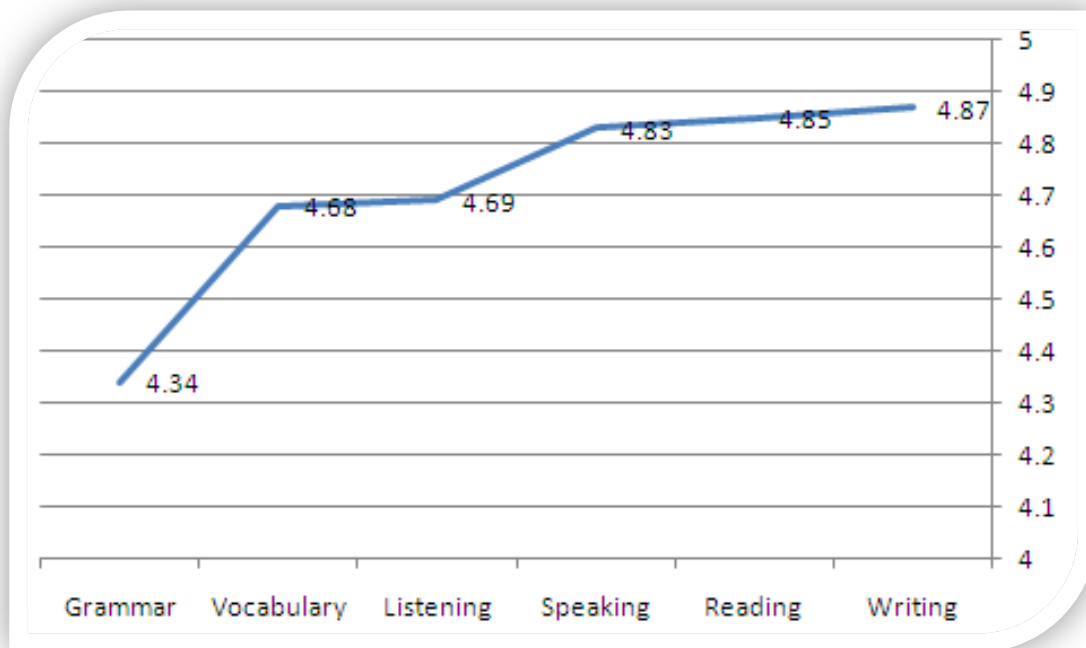
**Q.4) What are the most important English foreign language needs at the scientific faculties from academic staff's point of view?**

To answer this question, means and standard deviation scores for the study sample responses on the most important English foreign language needs at the scientific faculties from academic staff's point of view were calculated, as shown in table (4.18).

**Table (4.18): Means and standard deviations for the study sample responses to the most important English foreign language needs at the scientific faculties from academic staff's point of view.**

<b>Ordinal</b>	<b>Domain</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	Writing	4.87	0.333	Very high
2	Reading	4.85	0.359	Very high
3	Speaking	4.83	0.382	Very high
4	Listening	4.69	0.518	Very high
5	Vocabulary	4.68	0.569	Very high
6	Grammar	4.34	0.693	Very high

It has been noted from table (4.18) that the means and standard deviations scores of the most important English foreign language needs at the scientific faculties from academic staff's point of view are very high. And the most important English foreign language needs at the scientific faculties from students is writing with a mean of (4.87) and a standard deviation of (0.333), followed by reading with a mean of (4.85) and a standard deviation of (0.359), speaking with a mean of (4.83) and a standard deviation of (0.382), listening with a mean of (4.69) and a standard deviation of (0.518), vocabulary with a mean of (4.68) and a standard deviation of (0.569), but the lowest important English foreign language needs at the scientific faculties from academic staff's point of view is grammar with a mean of (4.34) and a standard deviation of (0.693). Figure (4.2) explained that.



**Figure (4.2): Means for the study sample responses to the most important English foreign language needs at the scientific faculties from academic staff's point of view.**

#### **4.2.2.5 Results related to the fifth sub question**

**Q.5) What are English foreign language needs for undergraduate students in scientific faculties from academic staff's point of view?**

To answer this question, means and standard deviation scores for the English foreign language needs for undergraduate student' in scientific faculties from academic staff's point of view were calculated, as shown in table (4.19).

**Table (4.19): Means and standard deviations for the English foreign language needs for undergraduate students' in scientific faculties from academic staff's point of view.**

<b>Ordinal</b>	<b>Domain</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	Listening	4.57	0.462	Very high
2	Writing	4.53	0.488	Very high
3	Vocabulary	4.52	0.440	Very high
4	Reading	4.50	0.544	Very high
5	Speaking	4.39	0.511	Very high
6	Grammar	4.24	0.612	Very high
<b>Total score</b>		<b>4.47</b>	<b>0.405</b>	<b>Very high</b>

It has been noted from table (4.19) that the means and standard deviations scores of the English foreign language needs for undergraduate students in scientific faculties from academic staff's point of view that the overall mean value is(4.47) and the standard deviation is (0.405) and this shows that the degree is very high. The highest needs is listening with a mean of (4.57) and a standard deviation of (0.462), followed by writing with a mean of (4.53) and a standard deviation of (0.488), vocabulary is with a mean of (4.52) and a standard deviation of (0.440), reading is with a mean value of (4.50) and a standard deviation of (0.544), followed by speaking with a mean of (4.39) and a standard deviation of (0.511), but the lowest degree is grammar with a mean of (4.24) and a standard deviation of (0.612).

Means and standard deviations scores of the study sample responses to questionnaire items that reflect the listening needs domain were calculated, as shown in table (4.20).

**Table (4.20): Means and standard deviation scores for the study sample responses to listening needs' domain.**

<b>Ordinal</b>	<b>Listening needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	Understand specialized scientific questions	4.73	0.551	Very high
2	understand scientific terms.	4.71	0.455	Very high
3	Understand specialized scientific lectures.	4.64	0.579	Very high
4	comprehend scientific texts.	4.63	0.624	Very high
5	interact in specialized scientific conferences.	4.47	0.636	Very high
6	comprehend oral presentations in the fields of science.	4.42	0.632	Very high
7	Understand specialized scientific seminars.	4.39	0.665	Very high
<b>Total score</b>		<b>4.57</b>	<b>0.462</b>	<b>Very high</b>

It has been noted from table (4.20) reveals that the overall mean value of the listening needs domain has (4.57) and std. deviation has (0.462), which indicates that is very high, and the highest item is "understand specialized scientific questions" has the mean score (4.73), Then the item " understand scientific terms" has the mean score (4.71), followed by the item "comprehend oral presentations in the fields of science" has got a mean score (4.42). Followed by the item " Understand specialized scientific seminars" which has got the lowest degree with a mean of (4.39).

Means and standard deviations scores of the study sample responses to questionnaire items that reflect the speaking needs domain were calculated, as shown in table (4.21).

**Table (4.21): Means and standard deviation scores for the study sample responses to speaking needs' domain.**

<b>Ordinal</b>	<b>Speaking needs</b>	<b>Mean</b>	<b>standard deviation</b>	<b>Degree</b>
1	use scientific terminology relevant to specialization.	4.66	0.526	Very high
2	discuss specialized scientific topics in English.	4.58	0.591	Very high
3	express information and data to foreigners who have connection to the field of specialization.	4.51	0.675	Very high
4	form questions pertaining to scientific field	4.40	0.668	Very high
5	speak in specialized scientific terms and concepts in English.	4.35	0.887	Very high
6	interact with specialists in the scientific field.	4.35	0.765	Very high
7	use non-specialized terminology in English.	3.89	0.871	high
<b>Total score</b>		<b>4.39</b>	<b>0.511</b>	<b>Very high</b>

Data shown from the table (4.21) reveals that the overall mean value of the speaking needs domain has (4.39) and std. deviation has (0.511), which indicates very high, and the highest item is " use scientific terminology relevant to specialization" has the mean score(4.66). Then the item "discuss specialized scientific topics in English" has the mean score (4.58). The items: "interact with specialists in the scientific field " and "use non-specialized terminology in English" have got the lowest mean scores.



Means and standard deviations scores of the study sample responses to questionnaire items that reflect the reading needs domain were calculated, as shown in table (4.22).

**Table (4.22): Means and standard deviation scores for the study sample responses to reading needs' domain.**

<b>Ordinal</b>	<b>Reading needs</b>	<b>Mean</b>	<b>standard deviation</b>	<b>Degree</b>
1	understand materials related to specialization	4.73	0.503	Very high
2	carry out specialized scientific assignments.	4.65	0.576	Very high
3	comprehend terminologies related to scientific topics.	4.64	0.579	Very high
4	Understand specialized scientific publications.	4.47	0.746	Very high
5	understand specialized scientific researches and journals.	4.47	0.711	Very high
6	Analyze specialized scientific courses.	4.47	0.746	Very high
7	understand terms which are not related to the field of specialization.	4.06	1.023	high
<b>Total score</b>		<b>4.50</b>	<b>0.544</b>	<b>Very high</b>

Data shown from the table (4.22) reveals that the overall mean value of the reading needs domain has (4.50) and std. deviation has (0.544), which indicates very high, and the most item is "understand materials related to specialization" has the mean score(4.73). Then the item "carry out specialized scientific assignments" has the mean score (4.65). The items: "Analyze specialized scientific courses" and "understand terms which are not related to the field of specialization" have got the lowest mean scores.

Means and standard deviations scores of the study sample responses to questionnaire items that reflect the writing needs' domain were calculated, as shown in table (4.23).

**Table (4.23): Means and standard deviation scores for the study sample responses to writing needs' domain.**

<b>Ordinal</b>	<b>Writing needs</b>	<b>Mean</b>	<b>standard deviation</b>	<b>Degree</b>
1	Write specialized scientific reports.	4.73	0.449	Very high
2	Write brief specialized scientific data.	4.65	0.530	Very high
3	write their field of specialized assignments	4.63	0.537	Very high
4	Write answers to the exam questions.	4.60	0.668	Very high
5	take specialized scientific notes.	4.50	0.636	Very high
6	Write specialized scientific articles.	4.49	0.763	Very high
7	Write scientific research papers.	4.35	0.713	Very high
8	write general scientific articles.	4.29	0.944	Very high
<b>Total score</b>		<b>4.64</b>	<b>0.579</b>	<b>Very high</b>

Data shown from the table (4.23) reveals that the overall mean value of the writing needs domain has (4.64) and std. deviation has (0.579), which indicates very high, and the highest item is " Write specialized scientific reports" has the mean score (4.73). Then the item "Write brief specialized scientific data" has the mean score (4.65). The items: " write general scientific articles" and "write general scientific articles" have got the lowest mean scores (4.29).

Means and standard deviations scores of the study sample responses to questionnaire items that reflect the grammar needs' domain were calculated, as shown in table (4.24).

**Table (4.24): Means and standard deviation scores for the study sample responses to grammar needs' domain.**

<b>Ordinal</b>	<b>Grammar needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	write valid sentences with full meaning in the field of specialization.	4.40	0.587	Very high
2	understand what they hear in the specialized scientific fields	4.27	0.746	Very high
3	speak about specialized scientific fields.	4.25	0.738	Very high
4	join specialized scientific sentences and paragraphs.	4.19	0.748	high
5	use connective pronouns in specialized structural compositions	4.18	0.776	high
6	use verb tenses in their correct form with reference to the time of occurrence.	4.16	0.737	high
<b>Total score</b>		<b>4.39</b>	<b>0.665</b>	<b>Very high</b>

Data shown from the table (4.24) reveals that the overall mean value of the grammar needs' domain has (4.39) and std. deviation has (0.665), which indicates very high, and the highest item is "write valid sentences with full meaning in the field of specialization" has the mean score (4.40). Then the item "understand what they hear in the specialized scientific fields" has the mean score (4.27). The items: "use connective pronouns in specialized structural compositions" and "use verb tenses in their correct form with reference to the time of occurrence" have got the lowest mean scores.

Means and standard deviations scores of the study sample responses to questionnaire items that reflect the vocabulary needs' domain were calculated, as shown in table (4.25).

**Table (4.25): Means and standard deviation scores for the study sample responses to Vocabulary needs' domain.**

<b>Ordinal</b>	<b>Vocabulary needs</b>	<b>Mean</b>	<b>standard deviations</b>	<b>Degree</b>
1	Write specialized scientific reports.	4.70	0.513	Very high
2	facilitate the understanding of specialized practical texts.	4.62	0.537	Very high
3	understand the speech of specialized scientific lectures.	4.59	0.544	Very high
4	talk about specialized scientific fields.	4.51	0.551	Very high
5	respond to the specialized scientific questions.	4.49	0.551	Very high
6	search the English web-sites containing specialized scientific information.	4.38	0.736	Very high
7	Elicit specialized scientific information.	4.36	0.621	Very high
<b>Total score</b>		<b>4.52</b>	<b>0.440</b>	<b>Very high</b>

Data shown from the table (4.25) reveals that the overall mean value of the vocabulary needs' domain has (4.52) and std. deviation has (0.440), which indicates very high, and the highest item is "Write specialized scientific reports" has the mean score(4.70). Then the item "facilitate the understanding of specialized practical texts" has the mean score (4.62). The items: "search the English web-sites containing specialized scientific information" and "Elicit specialized scientific information" have got the lowest mean scores.

#### 4.2.2.6 Results related to the sixth sub question

Are there any significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff's in scientific faculties at Al- Quds university towards English language needs due to (experience, faculty and qualification)?

To answer this question it was turned into the following (first, second, third) null hypotheses:

##### Results of The Fifth hypotheses:

There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to experience.

The fifth hypothesis was examined by calculating the means and deviation scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to experience, as shown in table (4.26).

**Table (4.26): Means and standards deviations scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to experience.**

Experience	No.	Mean	Std Deviation
Less than 5	9	4.27	0.336
5- less than 10	14	4.56	0.290
10- less than 15	20	4.50	0.476
more than 15	37	4.46	0.413

It can be noticed from table (4.26) that there are apparent differences in scientific faculties at Al- Quds university towards English language needs due to experience. To check these differences, one way ANOVA was applied using test data, as shown in the table(4.27).

**Table (4.27): One way ANOVA results for the scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to experience.**

Variance source	Sum of squares	Df	Mean square	F	Sig
Between groups	0.476	3	0.159	0.969	0.412
Within groups	12.456	76	0.164		
Total	12.932	79			

From the table (4.27), it can be noticed that F value for the total degree is (0.969), and the significant level is (0.412), and it is more than the significant level ( $\alpha \leq 0.05$ ).

Thus, there are no significant differences in the results for the scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to experience.

#### **Results of The Sixth hypotheses**

**There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to faculty.**

The sixth hypothesis was examined by calculating the means and deviation scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to faculty, as shown in table (4.28).

**Table (4.28): Means and standard deviation scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to faculty.**

Faculty	No.	Mean	Std Deviation
Engineering	15	4.49	0.207
Dentistry	10	4.38	0.481
Medicine	10	4.40	0.296
Pharmacy	8	4.83	0.425
Science and Technology	22	4.27	0.433
Health professional	15	4.63	0.368

Table (4.28) shows that there are apparent differences in scientific faculties at Al- Quds university towards English language needs due to faculty. To find out the significance of the differences, one way ANOVA was used, as shown in Table (4.29).

**Table (4.29): Results of one way ANOVA results for the scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to faculty.**

Variance source	Sum of squares	Df	Mean square	F	Sig
Between groups	2.362	5	0.472	3.307	0.009*
Within groups	10.570	74	0.143		
Total	12.932	79			

\*( $\alpha \leq 0.05$ )

From the table (4.29), it can be noticed that F value for the total degree is (3.307), and the significant level is (0.009), and it is less than the significant level ( $\alpha \leq 0.05$ ) Thus, there are significant differences in the scientific faculties at Al- Quds university towards English

language needs due to faculty. So, the results of the (LSD) test were examined to show the direction of the differences as shown in table (4.30).

**Table (4.30): LSD post-hoc test for faculty.**

<b>Variables</b>	<b>Faculty</b>	<b>Differences in means</b>	<b>Sig</b>
Engineering	Dentistry	0.1005	0.480
	Medicine	0.0905	0.559
	Pharmacy	-0.3369*	0.045
	Science and Technology	0.2156	0.093
	health professional	-0.1365	0.326
Dentistry	Engineering	-0.1095	0.480
	Medicine	-0.0190	0.911
	Pharmacy	-0.4464*	0.015
	Science and Technology	0.1061	0.464
	health professional	-0.2460	0.115
Medicine	Engineering	-0.0905	0.559
	Dentistry	0.0190	0.911
	Pharmacy	-0.4274*	0.020
	Science and Technology	0.1251	0.388
	health professional	-0.2270	0.145
Pharmacy	Engineering	0.3369*	0.045
	Dentistry	0.4464*	0.015
	Medicine	0.4274*	0.020
	Science and Technology	0.5525*	0.001
	health professional	0.2004	0.230
Science and Technology	Engineering	-0.2156	0.093
	Dentistry	-0.1061	0.464
	Medicine	-0.1251	0.388



	Pharmacy	-0.5525*	0.001
	health professional	-0.3521*	0.007
health professional	Engineering	0.1365	0.326
	Dentistry	0.2460	0.115
	Medicine	0.2270	0.145
	Science and Technology	-0.2004	0.230
	Science and Technology	0.3521*	0.007

Table (4.30) reveals that there are significant differences between the mean values for those who are in engineering faculty and pharmacy among scientific faculties at Al- Quds university towards English language needs referring to pharmacy. The differences are also coming between those who are in dentistry and pharmacy referring to pharmacy, also the differences are coming between those who are in medicine and pharmacy referring to pharmacy. The differences are coming between those who are in pharmacy and Engineering, dentistry, medicine and science- technology referring to engineering, dentistry, medicine and science - Technology. The differences are also coming between those who are in medicine and pharmacy referring to pharmacy, and also the differences are coming between those who are in science - technology and pharmacy, and the differences referred to pharmacy, health professional. Finally the differences are coming between those who are in health professional and science - technology referring to science.

#### 4.2.2.7 Results of The seventh hypotheses

**There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al-Quds university towards English language needs due to qualification.**

The seventh hypothesis was examined by calculating the means and deviation scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to qualification, as shown in table (4.31).

**Table (4.31): Means and standards deviations scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to qualification.**

Qualification	No.	Mean	Std Deviation
Lecturer	28	4.47	0.410
Assistant Professor	24	4.61	0.382
Associated Professor	20	4.35	0.390
Prof	8	4.32	0.413

It can be noticed from table (4.31) that there are apparent differences in scientific faculties at Al- Quds university towards English language needs due to qualification. To check these differences, one way ANOVA was applied using test data, as shown in the table(4.32).

**Table(4.32): One way ANOVA results of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to qualification.**

Variance source	Sum of squares	Df	Mean square	F	Sig
Between groups	0.960	3	0.320	2.031	0.117
Within groups	11.972	76	0.158		
Total	12.932	79			

From the table (4.32), it can be noticed that F value for the total degree is (2.031), and the significant level is (0.117), and it is more than the significant level ( $\alpha \leq 0.05$ ). Thus, there are no significant differences in the scientific faculties at Al- Quds university towards English language needs due to qualification.

## **4.2.3 Interview Analysis**

### **4.2.3.1 Introduction**

This section deals with the results of eight interviewees who are academic staff in scientific faculties which took place at Al-quds university interviews. The rationale for applying interviews in qualitative researches is known to be a suitable approach for obtaining valuable data which reveals individuals' experiences. It is also valuable since it allows those individuals to express their experiences in their own words. This has already been highlighted in this section which aims to combine the interview with another method (questionnaire) to answer the researcher's questions.

The section begins with an explanation of the interview analysis procedures which are followed by presentations and discussions of the interviews' findings in relation to the coding categories that have been established to answer the questions mentioned above.

Transcripts were taken from the interviews' transcriptions which offer insights into the academic staff's views towards particular issues. **(See Appendix VIII)**

### **4.2.3.2 Interview data analysis**

The followings are analyzing the interviews' transcripts:

#### **Q.1) What are the most important English language needs at the scientific faculties?**

As shown, most of the interviewed academic staff focused on the integration of these needs in scientific faculties when they teach their courses in English language. Others focused on speaking and writing, whereas, grammar is latest need in learning science courses in English language.

#### **Q2) What is the purpose of teaching scientific specialization in English language?**

According to the interviewees' responses to the second question, they asserted the importance of teaching science courses in English language, that refers to globalization of the language. The references, articles, experiments, are in English. And the prepared their students to be ready for the work in the future. One of the interviewees was against of them (Y.B: Science), he insisted to teach in Arabic language.

**Q3) Which language (Arabic or English) is more used in the lectures? What is ratio?**

According to the interviewees' responses, all of them mix between English and Arabic in their lectures with different ratios according to many condition such as the subject matter, students level, the aims...etc. they agreed that write English, speak English and then translate into Arabic.

**Q4) Are they weak in language skills? What is the reason for this weakness?**

According to the interviewees' responses, all of them agreed that students have weakness in English skills with different degrees according to the type of the school (private or governmental). They differ in diagnosing the causes of this weakness. Most of them agreed that this weakness is derived from the educational system and policy in Palestine. Others referred it to the students' slackness and disinterestedness.

**Q5) How are you dealing with this weakness as far as 70-90% of the course is in English?**

According to the interviewees' responses, the dealing with this weakness differs. One of them designed a book for his course with Arabic keys and simple language. all of them translate texts where necessary. Others do not have a time to produce treatment strategies for this weakness. Others have their own strategies.

**Q6) What about speaking and listening for learning scientific terminology?**

According to the interviewees' responses, all of them agreed that there is a great weakness in speaking and listening. Two of them insisted that speaking is important if students wish to travel abroad. Others insisted that most of the students do not have self-confidence to speak in front of their colleagues.

**Q7) Do you agree to divide English language courses into two tracks (humanities and scientific)?**

According to the interviewees' responses, most of them agreed to divide English courses into two tracks (humanities and scientific), and give specialized courses. One of them was against division (Y.S), he referred that English language is communicative and students will develop their skills in English by practicing in the fields.

#### **4.2.3.3.Summary**

In short, this chapter has been devoted to the presentation and analyses of the data collected through students' questionnaire, academic staff's questionnaire and interview. The results were demonstrated statistically by tables, graphs and comments.

#### **The results can be summarized as follows:**

1. All the students need language skills in scientific courses.
2. The importance and degrees of English foreign language needs for undergraduate students in scientific faculties from students and academic staff point of view are very high.
3. Speaking and listening are the most important English foreign language needs at the scientific faculties from students point of view.
4. Grammar is the lowest important needs from students' and academic staff's point of view.
5. Vocabulary and listening have the highest degrees for English foreign language needs for undergraduate students in scientific faculties from students' point of view, while grammar has the lowest degree.
6. There were no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of students' in scientific faculties at Al- Quds university towards English language needs due to academic level and achievement level. And there were statistically significant differences due to gender and faculty.
7. There were no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to experience, qualification whereas there were statistically significant differences due to faculty.
8. Integration of the language skills, grammar and vocabulary are necessary and important to deal with scientific courses in scientific faculties at Al-Quds university.

## **Chapter Five**

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### **Discussions, Conclusions and Recommendations**

#### **5.1 Introduction**

This study aimed at determining English foreign language needs for undergraduate students in scientific faculties from students' and academic staff's point of view. For this purpose, the researcher conducted the current study on a sample which consisted of students and academic staff at the scientific faculties at Al-Quds university. The discussion of the findings of the study is presented in this chapter according to the questions of the study. From what has been presented in chapter four, the academic staff and students and their point of views towards English language needs in scientific faculties can be summarized as follows:

#### **5.2 Discussion of the findings related to the first main question**

##### **What are English foreign language needs for undergraduate students in scientific faculties from students' and academic staff's point of view?**

The results showed that all the students need language skills in scientific courses. English foreign language needs for undergraduate students in scientific faculties from students and academic staff point of view are very high degree. The results were justified that students have inadequate language competence with different degree. Moreover, limited knowledge of English in terms of language skills and vocabulary. These results were considered a great evidence that English language plays a crucial and vital role in scientific faculties at Al-Quds university. He also justified that to the importance of English language in students' academic life, it was shown by students and academic staff as a necessary language not only for their education, but also for completing their work life professionally. The study agrees with the results of (Djebbar, 2016), (Nismari, 2018),.

(Baklazhenko and Savchuk, 2018), (Izidi, 2017) and (Gozuyesil, 2014), which focused on the language skills, grammar and vocabulary as a crucial needs for scientific fields.

### **5.2.1 Discussion of the findings related to the first sub- question**

#### **What are the most important English foreign language needs at the scientific faculties from students' point of view?**

The results revealed that the importance of English foreign language needs at the scientific faculties from students' point of view is very high, and the most important English foreign language needs are ordered as the following: speaking, listening, reading, vocabulary, and writing but the lowest important English foreign language needs at the scientific faculties from students' point of view is grammar. The researcher justified that speaking and listening might be the most needed skills referring to: a lack of pronunciation practice in scientific courses, limited opportunities of practicing speaking and listening and interacting with native speakers and authentic materials, and a state of disaccord to Palestinian educational culture. The study agrees with the results of (Izidi, 2017) that affirmed speaking is the most important language needs, writing is the least problem.

### **5.2.2 Discussion of the findings related to second sub- question**

#### **What are English foreign language needs for undergraduate students in scientific faculties from students' point of view?**

This study showed that English foreign language needs for undergraduate students in scientific faculties from students' point of view is in a high degree, and the needs are ordered respectively as the following: vocabulary, listening, speaking, reading, writing, but grammar is the lowest degree. The researcher justified this finding to the students' awareness of crucial role of vocabulary in scientific faculties in order to write, read, speak and listen. Also, the educational system and English curriculum focuses on grammar, and neglect writing and speaking. He also justified that students lack of scientific vocabulary knowledge, and affected all skills' areas and the productive apply of English language. Moreover, students' difficulties in grammar and language role could be caused by students' lack of understanding grammatical structures and language functions, and they did not get any corrective nature from the ESP courses. That affected to get the lowest degree in scientific faculties. According to related study, there is no study affirmed on the

importance of vocabulary at the priorities of the skills. So, this study did not agree with the results of any related study. The results of this study did not line up with (Indrasari, 2016) that showed the most needed one is grammar. It agrees with the result of (Gozuyesil, 2014) which affirmed on the listening skill in engineering faculty. And did not line up according to writing skills.

According to the listening sub-skills, this study has been revealed that the most sub-listening needs from students' point view is "understand scientific terms" followed by the item "comprehend scientific texts" but the items "comprehend oral presentations in the fields of science" and "interact in specialized scientific conferences" has got the lowest degree of needs. The researcher justified these findings that students focus on understanding of the scientific contents at first, and did not consider the importance of specialized scientific conferences, also, the administration of Al-Quds university may not motivate scientific students to participate in scientific conferences. Another reason for this finding that scientific students may not pay attention for these conference and may not have self-confidence to participate in oral presentations. The study agrees with the results of (Al-Tamimi and Shuib, 2010) that stressed on "listening to spoken presentations was viewed to be used less". It did not line up with (Gozuyesil, 2014) that stressed on using listening for understanding the lectures.

According to the speaking sub-skills, this study has been revealed that the most sub-speaking needs from students' point of view is "use scientific terminology relevant to specialization" followed by the item "speak in specialized scientific terms and concepts in English", the items "ask questions pertaining to scientific field" and "use non-specialized terminology in English" has got the lowest degrees. The researcher justified these findings that students may not have self-confidence to speak and ask questions, and that may referred to the educational system and public schools, because this system focuses at the first point on the scientific content, and neglect the productive sub-speaking skills. Furthermore, the limited opportunities of practicing speaking and interacting with native speakers and authentic materials, and a state of disaccord to Palestinian educational culture. The study agrees with the results of (Gozuyesil, 2014) which affirmed on the importance of speaking and its sub-skills in engineering faculty.



According to the reading sub-skills, this study has been revealed that the most sub-reading needs from students' point of view is "comprehend terminologies related to scientific topics" followed by the item "carry out specialized scientific assignments", the items "understand specialized scientific publications" and "understand terms which are not related to the field of specialization" has got the lowest degrees. Researcher justified these findings to the reading skill itself, because this is a productive skill and did not need higher thinking skills, and students need to be familiar with scientific terminologies in order to carry out scientific assignment and homework. The study did not line up with the study of (Gozuyesil, 2014) which affirmed that students need reading to read for specific information in a high percentage. The lowest percentage was for "summarizing the text".

According to the writing sub-skills, this study has been revealed that the most sub-writing needs from students' point view is "write specialized scientific reports" followed by the item "take specialized scientific notes", the items "Write brief specialized scientific data" and "write general scientific articles" has got the lowest degrees. Researcher justified these findings to that the current curriculum and scientific courses may focus only on writing scientific reports and taking notes, because they do not need complex sentences. That is the most simple sub-writing skills. They are not be able to write articles, because they need to use valid sentences with correct grammar. So, students avoid writing articles and they may not need them in their faculties from their points of view. The study agrees with the results of (Al-Tamimi and Shuib, 2010) that showed the students often write assignments and lab reports. It did not line up with (Gozuyesil, 2014) that students did not need writing skills and sub skills in a high percentage.

According to the grammar, this study has been revealed that the most grammar needs from students' point of view is "write valid sentences with full meaning in the field of specialization" followed by the item "understand what they hear in the specialized scientific fields", but the items "use verb tenses in their correct form with reference to the time of occurrence" and "use connective pronouns in specialized structural compositions" has got the lowest degrees. Researcher justified these findings to students' low proficiency in English language, they need to write meaningful sentences to join the ideas and reach it to the others. And they are not be able to use valid grammar in spite of the focusing of the English curriculum (in schools) on grammar.

According to the vocabulary, this study has been revealed that the most vocabulary needs from students' point of view is "facilitate the understanding of specialized practical texts" followed by the item "understand the speech of specialized scientific lectures" but the items "talk about specialized scientific fields" and "search the English web-sites containing specialized scientific information" which has got the lowest degrees. Researcher justified these findings to the awareness of students for the importance of vocabulary to express and understand the scientific texts. Also, they do not have self-confidence to use vocabulary in order to express about scientific fields.

### **5.2.3 Discussion of the findings related to the third sub question**

Are there any significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of students' in scientific faculties at Al- Quds university towards English language needs due to (gender, academic level, achievement level and faculty)?

#### **Discussion the findings related to first hypotheses:**

There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of students' in scientific faculties at Al- Quds university towards English language needs due to gender.

This study showed that there are statistical significant differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to gender, and the degree is highly with female. Thus, the forth hypothesis was accepted. Researcher justified this finding to the nature of females in following their learning, and they may be able to depend on themselves and called more efforts than males. The results did not agree with the results of (Kong, 2018) and (Al-samadan, 2017) that showed no differences according to students' needs. The results also lines up with (Qaddomi, 2013) that revealed t there were significant differences in AU cadets EFL needs on all domains in favor of police sciences, military sciences, over the psychology security due to major variable.

### **Discussion the findings related to the second hypothesis**

There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level.

This study showed that there are apparent differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level, It noticed that the significant level is more than the significant level ( $\alpha \leq 0.05$ ). Thus, there are no significant differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to academic level. Researcher justified this finding to the students' weakness in English language, and that effect on all the scientific students' academic level which is almost low. He justified this weakness for three factors of the needs analysis model. These factors are English language information about learners, learners' lacks, and the environmental situations. The results agree with the results of (Izidi, 2017) and (Gozuyesil, 2014) that showed no differences according to students' needs. The results did not line up with (Qaddomi, 2013) that revealed t there were significant differences in AU cadets EFL needs on all domains in favor of police sciences, military sciences, over the psychology security due to major variable.

### **Discussion the findings related to third hypothesis**

There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level.

This study showed that there are apparent differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level, it noticed that the significant level is more than the significant level ( $\alpha \leq 0.05$ ). Thus, there are no significant differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to achievement level, Thus, the sixth hypothesis was rejected.

The researcher justified this finding due to negative attitudes towards English language, consequently, that effect on all achievement levels at all scientific faculties in Al-Quds

university. They may not be able to write, read, speak and listen. The results agree with the results of (Yuliia, Baklazhenko, Baklazhenko and Savchuk,. 2018) that showed no differences according to variables for students' needs. The results also did not line up with (Qaddomim 2013) that revealed t there were significant differences in AU cadets EFL needs on all domains in favor of police sciences, military sciences, over the psychology security due to major variable.

### **Discussion the findings related to the fourth hypothesis**

**There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean between the mean scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty.**

This study showed that there are apparent differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty. The study noticed that the significant level is more than the significant level ( $\alpha \leq 0.05$ ). Thus, there are significant differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty, Thus, the seventh hypothesis was accepted.

The study revealed that there are significant differences in the scores of responses of undergraduate students in scientific faculties at Al- Quds university towards English language needs due to faculty between those who are in engineering and all faculties in the study, and the differences referred to all faculties (Dentistry, Medicine, Pharmacy, Science and Technology and health professional), and also the between science - technology and Medicine, and referred to medicine faculty, finally the differences coming between of health professional and engineering, medicine, thus referred to health professional firstly and medicine secondly.

The researcher justified these findings to the policy for each faculty. Medicine and health professional may pay attention more than other faculties by giving students tasks and activities that motivate students in those faculties. The results did not line up with the results of (Nur and Elsaid, 2018) and (Yuliia, Baklazhenko, Baklazhenko and Savchuk,. 2018 ) that showed no differences according to variables for students' needs. The results lines up with (Qaddomi, 2013) that revealed t there were significant differences in AU

cadets EFL needs on all domains in favor of police sciences, military sciences, over the psychology security due to major variable.

#### **5.2.4 Discussion of the findings related to the fourth sub question**

##### **What are the most important English foreign language needs at the scientific faculties from academic staff's point of view?**

The results reveal that the most important English foreign language needs at the scientific faculties from academic staff's point of view are very high, and the important of English foreign language needs at the scientific faculties from students is ordered as the following: writing, reading, speaking, listening, vocabulary but the lowest importance English foreign language needs at the scientific faculties from academic staff's point of view is grammar. The researcher justified that academic staff are aware of the importance of learning English by writing, because writing includes other skills such as reading, grammar and vocabulary. The study agrees with the results of (Yuliia, Baklazhenko, Baklazhenko and Savchuk, 2018) that showed grammar is less important than others. This study also agreed with (Nur, 2018) and (Ampa, 2018) that showed writing is the most important needs, because it contains grammar and vocabulary. The results of this study did not line up with (Indrasari, 2016) that showed the most needed one is grammar.

#### **5.2.6 Discussion of the findings related to the fifth sub question**

##### **What are English foreign language needs for undergraduate students in scientific faculties from academic staff's point of view?**

This study showed that English foreign language needs for undergraduate students in scientific faculties from academic staff's point of view is in a very high degree, and the needs are ordered respectively as the following: listening, writing, vocabulary, reading, speaking but grammar is the lowest degree. The researcher justified this finding that academic staff enhance students to listen to the media in order to let them interact with native speakers to be familiar with scientific terms. Academic staff consider grammar is not needed in scientific courses because the aim is to understand the ideas without paying attention to the elements of sentences that students speak or write. Moreover, teachers at schools gave listening activities that motivate students to learn and build their self – confidence towards the learning process. The researcher also thinks that refers to the

students themselves. In other words, students do not pay attention to this skill, because they did not depend on themselves in their study at these faculties, and they need all things ready, and they did not need to think or use their minds in learning because the reading skill needs a great effort from students in order to fulfill their studying aims in their faculties. Also, they depend on the abstracts and summaries in learning, and they do not use the original books in their education. He also thinks that due to their limited vocabulary learning strategies. The study agrees with the results of (Bouablla, 2015), (Suardanda, 2018), (Nismari, 2018), (Yuliia, Baklazhenko, Baklazhenko and Savchuk., 2018 ) and (Al-Tamimi and Shuib, 2010) that showed listening and speaking are the most important. The results of this study did not line up with (Djebbari, 2016) that showed the most language needed skills in science are (reading, writing, listening and speaking) respectively, the results also did not line up with (Indrasari, 2016) that showed students the most needed one is grammar, and all the skills are needed except writing. Moreover, according to the related studies, many of them stressed and affirmed on the importance of the reading skill in the scientific fields such as (Chatsungneon, 2015), (Azodi, (2017), (Djebbar, 2016), (Shadfan, 2014), (Al-astal, 2012), and (Habbash, 2014). On lightning on the findings of this study, all the findings did not show the importance of the reading skill at the priorities of other skills.

According to the listening sub-skills, this study has been revealed that the most sub-listening needs from academic staff's point of view is "Understand specialized scientific questions" followed by the item " understand scientific terms", but the item "comprehend oral presentations in the fields of science" has got the lowest degree of needs. The Researcher justified this finding that the students' aim in scientific courses is to understand the content in order to be able to reply on the question that academic staff ask, so they listen to understand question terms firstly to avoid misconceptions between students and academic staff. The results agree with (Habbash and Albakrawi, 2014) that all sub-listening skill are important with different degrees as " listening to one person talking and listening to orders and instructions.

According to the speaking sub-skills, this study has been revealed that the most sub-speaking needs from academic staff's point of view is " use scientific terminology relevant to specialization" followed by the item "discuss specialized scientific topics in English" The items "interact with specialists in the scientific field " and "non-specialized terminology in English" have got the lowest degrees. The researcher justified these finding

that the language must be practiced by speaking and communication. In scientific fields, terminologies are needed in order to be able to interact in scientific fields correctly and giving correct scientific messages. The results did not line up with (Habbash and Albakrawi, 2014) which stressed on speaking between others as the first sub skill for speaking.

According to the reading sub-skills, this study has been revealed that the most sub-reading needs from academic staff's point of view is "understand materials related to specialization" followed by the item "carry out specialized scientific assignments". The items "Analyze specialized scientific courses" and "understand terms which are not related to the field of specialization" has got the lowest degrees. Researcher justified this result that reading is a productive skill, and students need to understand what they read in order to be able to interact correctly with others in scientific fields. And to be able to do scientific assignments correctly. If students understand what they read, they will be able to carry out the aims of their lectures and home works. Also, scientific students seem that they still had obstacles in this skill, which might be caused by their lack of prior knowledge around the scientific content area. That did not agree with (Habbash and Albakrawi, 2014) which stressed that most engineering ESP learners need in their educational or occupational life includes reading advertisements, brochures, table.

According to the writing sub-skills, this study has been revealed that the most sub-writing needs from academic staff's point of view is "Write specialized scientific reports" followed by the item "Write brief specialized scientific data" The items "write general scientific articles" and "write general scientific articles" has got the lowest degrees respectively. The researcher justified that the most needed in scientific courses is writing reports, because it is the most activity that academic staff ask students to do in their scientific lectures. Also, he justified that students cant transfer and integrate their knowledge of other language skills to complete their writing activities. This might be from a lack of relevance and connection between reading and writing tasks.

According to grammar, this study has been revealed that the most grammar needs from academic staff's ' point of view is "write valid sentences with full meaning in the field of specialization" followed by the item "understand what they hear in the specialized scientific fields". The items "use connective pronouns in specialized structural compositions" and "use verb tenses in their correct form with reference to

the time of occurrence" has got the lowest degrees. The researcher justified this result that writing valid sentences in scientific assignments is the priority of scientific courses in order to express the correct scientific ideas.

According to vocabulary, this study has been revealed that the most vocabulary needs from academic staff's ' point of view is "Write specialized scientific reports" followed by the item "facilitate the understanding of specialized practical texts", but the items "search the English web-sites containing specialized scientific information" and "Elicit specialized scientific information" has got the lowest degrees respectively. The researcher justified that students need to write their reports with terms that suit their specialization in order to be familiar with courses aims.

### **5.2.7 Discussion of the findings related to seventh sub question**

**Are there any significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff's in scientific faculties at Al- Quds university towards English language needs due to (experience, faculty and qualification)?**

To discuss the findings of this question, (first, second and third) null hypotheses are discussed as the following:

#### **Discussion the findings related to fifth hypotheses**

There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to experience.

This study showed that there are apparent differences in scientific faculties at Al- Quds university towards English language needs due to experience. It was noticed that significant level is more than the significant level ( $\alpha \leq 0.05$ ). Thus, there are no significant differences in the scientific faculties at Al- Quds university towards English language needs due to experience, Thus, the fifth hypothesis was rejected. The researcher believed that the reason behind that is the interest of academic staff in students' needs, because all the scientific courses are with English language, and in order to be in a high proficiency in English, students should practice the language in many ways and situations. The results did not line up with (Qaddomi, 2013) that revealed t there were significant differences in AU



cadets EFL needs on all domains in favor of police sciences, military sciences, over the psychology security due to major variable.

### **Discussion the findings related to sixth hypotheses**

There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to faculty.

This study showed that there are apparent differences in scientific faculties at Al- Quds university towards English language needs due to faculty, the study noticed that the significant level is less than the significant level ( $\alpha \leq 0.05$ ). Thus, there are significant differences in the scientific faculties at Al- Quds university towards English language needs due to faculty. Thus, the sixth hypothesis was accepted, and examining the direction of the differences revealed that there are significant differences between the mean values between those who are in engineering faculty and those who teaching in pharmacy among scientific faculties at Al- Quds university towards English language needs, and the differences coming between those who are teaching in dentistry and pharmacy, also the differences coming between those who are in medicine and pharmacy, and the differences coming between those who are in pharmacy and Engineering, Dentistry, Medicine, Science and Technology, and the differences coming between those who are in medicine and pharmacy, differences referred to pharmacy, and also the differences coming between those who are in science - technology and pharmacy, and the differences referred to pharmacy, health professional, finally the differences coming between those who are in health professional and science and technology, the differences referred to science and technology. The researcher believed the reason behind that is all the students who join the scientific faculties at the first year did not take specialized courses at the first year. Those students are emerged with all students in other faculties. The policy of university does not divide the students according to their faculty at the first year, so they do not join special courses. This may be also due to the weak English syllabus in the secondary school and university. Another reason is that the time allotted for English courses is not enough to improve students' level of proficiency. Use of Arabic as the language of instruction in scientific faculties at Al-Quds university can be an additional reason for this level. This means that all scientific faculties are, generally, aware of the importance of English for scientific students. The results lines up with (Qaddomi, 2013) that revealed t there were

significant differences in AU cadets EFL needs on all domains in favor of police sciences, military sciences, over the psychology security due to major variable.

### **Discussion the findings related to the seventh hypotheses**

There are no statistically significant differences at the significant level ( $\alpha \leq 0.05$ ) between the mean scores of responses of academic staff in scientific faculties at Al- Quds university towards English language needs due to qualification.

This study showed that there are apparent differences in scientific faculties at Al- Quds university towards English language needs due to qualification. The study revealed that the significant level is more than the significant level ( $\alpha \leq 0.05$ ). Thus, there are no significant differences in the scientific faculties at Al- Quds university towards English language needs due to qualification, Thus, the seventh hypothesis was rejected. The researcher justified that needs analysis has an important role for implementing English for specific purposes teaching. Effective needs analysis has a great significance for scientific academic staff who have different years of experience in order to improve teaching methods and improve teaching effect. It can make them to understand their own teaching objects and teaching aims clearly. The results did not line up with (Qaddomi, 2013) that revealed there were significant differences in AU cadets EFL needs on all domains in favor of police sciences, military sciences, over the psychology security due to major variable.

### **5.3 Discussion of Interviews' findings**

The aim of the interviews was to answer the research questions qualitatively by collecting information about academic staff's point of views referring to scientific faculties at Al- Quds university. Information has showed valuable basics and fundamentals for students' needs at scientific faculties concerning on the study's questions.

Depending on interviewees experience in teaching in scientific faculties, students have a general weakness at all English skills which are needed to learn scientific courses. This weakness refers to many reasons: the nature of the language, students and educational environment and system. So, they apply many strategies to cope with this weakness as translation with different degrees according to students' level and proficiency. But according to the nature of scientific content, there is no enough time to expand those

strategies during the courses. Academic staff determine students' needs in scientific faculties. They focus on integration skills in dealing with scientific courses.

Determining for these needs from academic staff's point of view has a crucial role in language skills, because understanding the content of scientific courses requires a perfect proficiency at (listening, speaking, writing, reading, grammar and vocabulary). All those are integrated in scientific courses.

Also, as a fact that researcher found that the scientific courses were learnt in English language for many reasons: Language globalization, the original sources, the nature of science, and the future jobs. Sometimes, academic staff use the mother tongue language in order to avoid misunderstanding for students lectures, and to give opportunities for weak students to be familiar with scientific aspects, but there is still a difficulty for that because there is no standard translation between English and Arabic.

## 5.4 Conclusion

**The questionnaires and the interview results are in consistence with the following areas:**

From what has been presented above, the views of academic staff and students that referred to English language needs at scientific faculties can be summarized as follows:

1. Academic staff's results focused on the integration of these needs in scientific faculties when they teach their courses at English language. Grammar is latest need in learning science courses in English language.
2. The researcher thinks that the scientific tasks need proficiency in English language in order to fulfill the aims of these scientific tasks that need applying all the needs that mentioned in the questionnaire and the interview. So students need to listen for their academic staff, they need to read, speak, write.
3. All of interviewees agreed that low scientific achievements and most of the students are poor English except students who graduated from private schools, so academic staff referred this poorness to the educational system in governmental schools. Schools did not let students to practice the language, making summaries, forming good attitudes towards the Language itself. That referred to language itself not to the scientific courses. Interviewees affirmed that learners cannot interact with them, they referred that to lack of special attention these skills in the early stages of learning English at preparatory and secondary schools, and students just read the summaries and handouts of lectures and did not read the original books. That accepted with the questionnaire that affirmed to the need to interact in scientific lectures, and they do not need interact with non-related terms.
4. In terms of coping with students' weakness, one of interviewees, dealing with this weakness by designing a book for his course with Arabic keys and simple language. All of them translate texts where necessary. Others do not have a time to produce treatment strategies for this weakness. Others have their own strategies. All of them affirmed to motivate learners to learn the language effectively in their lectures.
5. In terms of the language used in scientific courses, integrating both English and Arabic are preferred by most of the learners, a few seem to be more interested only in English.

In short, undergraduate scientific students at Al-Quds university need language skills, vocabulary and grammar in scientific courses because they are very important from students' and academic staff's point of views with different degrees. Moreover, there were differences according to faculties from their views. The results affirmed on integration for these needs in order to be able to fulfill the purposes of scientific courses at Al-Quds University.

**The findings between the two instruments were inconsistency with these points**

Students' questionnaire finds that the most important skill is speaking, academic staff's questionnaire finds that the most important skill is writing, whereas the results of the interview find that all skills are needed and important. The researcher justified that interviewees according to their experience are aware of integrated skills in their scientific courses in order to success in the courses' aims.

## **5.5 Recommendations**

In the light of the results of this study, the researcher finds it is important to give some recommendations to determine English language needs in scientific faculties for decision makers.

### **Recommendations for academic decision makers**

1. The curriculums at scientific faculties and schools could be revised in order to fulfill students' needs especially speaking, writing and listening without neglecting others.
2. The educational system in Palestine should be revised focusing on students' needs.
3. Divide students' into their proficiency level, and giving them academic English courses covering the four skills in addition to vocabulary and grammar and depending on students' needs and a clear focus.
4. Giving students opportunities to practice English language in scientific fields.
5. Emphasizing topics and themes which are related to students' needs and interests and compatible with their background, experience, and abilities that motivate students to learn and encourages them to build self-confidence and positive attitudes learning to increase English proficiency.

### **Recommendations for further studies**

1. This study was limited to the scientific faculties at Al-Quds University. Other studies could be applied to other faculties at Al-Quds University and other universities.
2. Further studies could take into account of the ESP teachers' beliefs, practices, and experiences. It is recommended that class observations and interviews with both scientific learners and academic staff would provide more insights.

## **5.6 Suggestions**

1. Al-Quds University could establish the core position to carry out a deep and comprehensive needs analysis for students and curriculums for scientific faculties which will help researchers to provide more scientific references for decision-makers.
2. The scientific courses could begin in the first year as General English for academic Purposes and develop students' needs (speaking, writing listening, comprehension reading). Then, the focus can shift towards discipline of specific English for scientific purposes to stress on students' needs.

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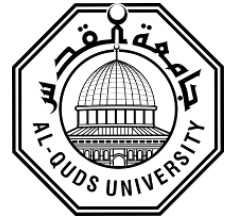
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## Appendix (I): Students' Questionnaire (English)

Al-Quds University

Deanship of Graduate Studies  
Faculty of Educational Sciences



Dear students,

The researcher conducts this study, "Determining English Foreign Language Needs for Undergraduate Students in Scientific Faculties from Students' and Academic Staff's Point of View at Al-Quds University", to complete the requirements for obtaining a master's degree in English language teaching methods at Al-Quds University. In order to achieve the objective of this study, please study the paragraphs of the questionnaire and answer them in an objective manner. As a reminder, all of your answers will be used for scientific research only and be kept strictly confidential. This questionnaire consists of three parts: the first part comprises personal data, the second part is about assessing the students' needs, whereas, the third part measures the students' needs.

Thank you for your cooperation

Name: Mus'ab Yousef Abedraboh

Supervisor: Dr. Inas Naser

### Section (A): Personal Information.

Please, put the mark (x) in the place that suits your case.

**Gender:**  Male  Female

**Academic Level:**  First year  Second year  Third year  Fourth year and above

**Achievement level:**  65- less than 75  75- less than 85  more than 85

**Faculty:**  Engineering  Dentistry  Medicine  Pharmacy  
 Science and Technology  Health Professional



**Section (B): Assessing English Language needs at the scientific faculties.**

**What are the most important English foreign language needs at the scientific faculties?**

Please, put the mark (x) in the place that suits your case.

<b>English language skill</b>	<b>Very important</b>	<b>Important</b>	<b>Moderately important</b>	<b>little important</b>	<b>Not important</b>
Listening					
Speaking					
Reading					
Writing					
Grammar					
Vocabulary					

## Section (C): Students' Needs

Skills	No.	Needs	Very high degree	High degree	Moderate	Low degree	Very Low degree

I need to .....							
Listening (sub – skills)	1.	comprehend scientific texts.					
	2.	understand scientific terms.					
	3.	understand specialized scientific questions.					
	4.	understand specialized scientific lectures.					
	5.	understand specialized scientific seminars.					
	6.	interact in specialized scientific conferences.					
	7.	comprehend oral presentations in the fields of science.					
I need to.....							
Speaking (sub – skills)	1.	use scientific terminology relevant to specialization.					
	2.	express information and data to foreigners who have connection to the field of specialization.					
	3.	discuss specialized scientific topics in English.					
	4.	use non-specialized terminology in English.					
	5.	speak in specialized scientific terms and concepts in English.					
	6.	ask questions pertaining to scientific field.					
	7.	interact with specialists in the scientific field.					
I need to.....							
Reading in	1.	comprehend terminologies related to scientific topics.					

Skills	No.	Needs	Very high	High degree	Moderate	Low degree	Very Low
			degree	degree	degree	degree	degree

	2.	understand materials related to specialization.					
	3.	understand terms which are not related to the field of specialization.					
	4.	analyze specialized scientific courses.					
	5.	understand specialized scientific researches and journals.					
	6.	carry out specialized scientific assignments.					
	7.	understand specialized scientific publications.					

I need to.....

Writing sub - skills	1.	write specialized scientific reports.					
	2.	write specialized scientific articles.					
	3.	Write brief specialized scientific data.					
	4.	write general scientific articles.					
	5.	Write scientific research papers.					
	6.	write answers to the exam questions.					
	7.	write their field of specialized assignments.					
	8.	take specialized scientific notes.					

I need grammar to.....

	1.	write valid sentences with full meaning in the field of specialization.					
	2.	speak about specialized scientific fields.					
	3.	understand what they hear in the specialized scientific fields					
	4.	join specialized scientific sentences and					

Skills	No.	Needs	Very high	High degree	Moderate	Low degree	Very Low
			degree				degree

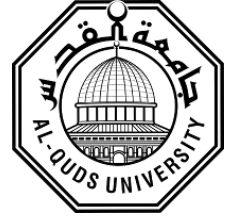
		paragraphs.					
	5.	use connective pronouns in specialized structural compositions					
	6.	use verb tenses in their correct form with reference to the time of occurrence.					

I need vocabulary to.....

Vocabulary	1.	facilitate the understanding of specialized practical texts.					
	2.	write specialized scientific reports.					
	3.	talk about specialized scientific fields.					
	4.	understand the speech of specialized scientific lectures.					
	5.	elicit specialized scientific information.					
	6.	respond to the specialized scientific questions.					
	8.	search the English web-sites containing specialized scientific information.					

## Appendix (II.): Academic Staff's Questionnaire (English)

Al-Quds University  
Deanship of Graduate Studies  
Faculty of Educational Sciences



Dear academic staff,

The researcher conducts this study, "Determining English Foreign Language Needs for Undergraduate Students in Scientific Faculties from Students' and Academic Staff's Point of View at Al-Quds University", to complete the requirements for obtaining a master's degree in English language teaching methods at Al-Quds University. In order to achieve the objective of this study, please study the paragraphs of the questionnaire and answer them in an objective manner. As a reminder, all of your answers will be used for scientific research only and be kept strictly confidential. This questionnaire consists of three parts: the first part comprises personal data, the second part is about assessing the students' needs, whereas, the third part measures the students' needs.

Thank you for your cooperation

Name: Mus'ab Yousef Abedraboh

Supervisor: Dr. Inas Naser

### Section (A): Personal Information.

Please, put the mark (x) in the place that suits your case.

**Experience:**       Less than 5     5- less than 10       10- less than 15     more than 15

**Faculty:**             Engineering     Dentistry       Medicine     Pharmacy  
 Science and Technology     Health Professional

**Qualification:**     lecturer     Assistant Professor     Associated Professor     Prof.

**Section (B): Assessing English language needs at the scientific faculties.**

**What are the most important English language needs at the scientific faculties?**

Please, put the mark (x) in the place that suits your case.

<b>English language skill</b>	<b>Very important</b>	<b>Important</b>	<b>Moderately important</b>	<b>little important</b>	<b>Not important</b>
Listening					
Speaking					
Reading					
Writing					
Grammar					
Vocabulary					

## Section (C): Students' Needs

Skills	No.	Needs	Very high degree	High degree	Moderate	Low degree	Very Low degree

### Students need to .....

Listening (sub – skills)	1.	comprehend scientific texts.					
	2.	understand scientific terms.					
	3.	understand specialized scientific questions.					
	4.	understand specialized scientific lectures.					
	5.	understand specialized scientific seminars.					
	6.	interact in specialized scientific conferences.					
	7.	comprehend oral presentations in the fields of science.					

### Students need to.....

Speaking (sub – skills)	1.	use scientific terminology relevant to specialization.					
	2.	express information and data to foreigners who have connection to the field of specialization.					
	3.	discuss specialized scientific topics in English.					
	4.	use non-specialized terminology in English.					
	5.	speak in specialized scientific terms and concepts in English.					
	6.	form questions pertaining to scientific field.					
	7.	interact with specialists in the scientific field.					

### Students need to.....

Reading	1.	comprehend terminologies related to scientific topics.					
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Skills	No.	Needs	Very high	High degree	Moderate	Low degree	Very Low
			degree	degree	degree	degree	degree

	2.	understand materials related to specialization.					
	3.	understand terms which are not related to the field of specialization.					
	4.	analyze specialized scientific courses.					
	5.	understand specialized scientific researches and journals.					
	6.	carry out specialized scientific assignments.					
	7.	understand specialized scientific publications.					

**Students need to.....**

Writing sub – skills	1.	write specialized scientific reports.					
	2.	write specialized scientific articles.					
	3.	Write brief specialized scientific data.					
	4.	write general scientific articles.					
	5.	Write scientific research papers.					
	6.	write answers to the exam questions.					
	7.	write their field of specialized assignments.					
	8.	take specialized scientific notes.					

**Students need grammar to.....**

	1.	write valid sentences with full meaning in the field of specialization.					
	2.	speak about specialized scientific fields.					
	3.	understand what they hear in the specialized scientific fields					
	4.	join specialized scientific sentences and paragraphs.					
	5.	use connective pronouns in specialized structural					



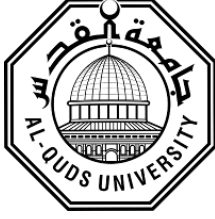
Skills	No.	Needs	Very high degree	High degree	Moderate	Low degree	Very Low degree
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		compositions					
	6.	use verb tenses in their correct form with reference to the time of occurrence.					

**Students need vocabulary to.....**

Vocabulary	1.	facilitate the understanding of specialized practical texts.					
	2.	write specialized scientific reports.					
	3.	talk about specialized scientific fields.					
	4.	understand the speech of specialized scientific lectures.					
	5.	elicit specialized scientific information.					
	6.	respond to the specialized scientific questions.					
	7.	search the English web-sites containing specialized scientific information.					

## Appendix (III): Students' Questionnaire (Arabic)



جامعة القدس

كلية العلوم التربوية

الدراسات العليا

عزيزي الطالب المحترم

يقوم الباحث بدراسة بعنوان " حاجات طلبة الكليات العلمية في اللغة الانجليزية من وجهة نظر الطلبة والمدرسين في جامعة القدس "، وذلك استكمالاً لمتطلبات نيل درجة الماجستير في أساليب تدريس اللغة الانجليزية في جامعة القدس، ولتحقيق هدف هذه الدراسة، يرجى التكرم بدراسة فقرات الاستبانة، والاستجابة لكل فقرة بما يناسبك، بحيث تكون الاستجابات موضوعية، لما لها من أهمية على نتائج الدراسة، علماً بأن هذه المعلومات سوف تعامل بسرية تامة ولن تستخدم إلا لأغراض البحث العلمي.

شاكراً لكم حسن تعاونكم.

الجزء (أ): البيانات الشخصية

فضلاً وليس أمراً، الرجاء وضع إشارة (X) أمام ما يناسبك.

الجنس:  ذكر  أنثى

المستوى الأكاديمي:  السنة الأولى  السنة الثانية  السنة الثالثة  السنة الرابعة فأكثر

مستوى التحصيل:  65- أقل من 75  75- أقل من 85  أكثر من 85

الكلية:  الهندسة  طب الأسنان  الطب البشري

الصيدلة  العلوم والتكنولوجيا  لمهن الصحية

الجزء (ب): ما هي أهم حاجات طلبة الكليات العلمية في اللغة الانجليزية؟

فضلاً وليس أمراً، الرجاء وضع إشارة (X) أمام ما يناسبك.

الحاجة	مهمة جدا	مهمة	متوسطة الأهمية	قليلة الأهمية	غير مهمة
مهارة الاستماع					
مهارة المحادثة					
مهارة القراءة					
مهارة الكتابة					
القواعد					
المفردات					

الجزء (ج): درجة الحاجة

الرقم	الحاجة	درجة كبيرة جداً	درجة كبيرة	درجة متوسطة	درجة منخفضة	درجة منخفضة جداً
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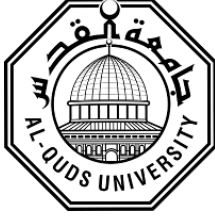
مهارات الاستماع الفرعية						
أحتاج في مجال تخصصي إلى مهارة الاستماع لـ:						
1.	استيعاب النصوص العلمية.					
2.	فهم المصطلحات العلمية.					
3.	فهم الأسئلة العلمية.					
4.	فهم المحاضرات العلمية.					
5.	فهم المشاريع العلمية.					
6.	التفاعل في المؤتمرات العلمية.					
7.	استيعاب عروض شفوية علمية.					
مهارات التحدث الفرعية						
أحتاج في مجال تخصصي إلى مهارة التحدث لـ:						
1.	استخدام المصطلحات العلمية .					
2.	التعبير عن المعلومات والبيانات للأجانب الذين لهم ارتباطاً بمجال التخصص.					
3.	نقاش المواضيع العلمية باللغة الانجليزية.					
4.	استخدام مصطلحات غير متعلقة بتخصصي باللغة الانجليزية.					
5.	التحدث بالمصطلحات والمفاهيم العلمية باللغة الانجليزية.					
6.	صياغة أسئلة علمية.					
7.	التفاعل مع المتخصصين في المجالات العلمية.					
مهارات القراءة الفرعية						
أحتاج في مجال تخصصي إلى مهارة القراءة لـ:						
1.	فهم المصطلحات والمفاهيم المتعلقة.					
2.	فهم المطبوعات.					
3.	فهم المصطلحات غير المتعلقة بمجال تخصصي.					
4.	تحليل المساقات العلمية.					
5.	استيعاب البحوث والمجلات العلمية.					
6.	حل الواجبات العلمية.					
7.	استيعاب المطبوعات العلمية.					

الجزء (ج): درجة الحاجة

الرقم	الحاجة	درجة كبيرة جداً	درجة كبيرة	درجة متوسطة	درجة منخفضة	درجة منخفضة جداً
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مهارات الكتابة الفرعية						
أحتاج في مجال تخصصي إلى مهارة الكتابة لـ:						
1.	كتابة تقارير علمية.					
2.	كتابة مواضيع علمية.					
3.	كتابة بيانات علمية موجزة.					
4.	كتابة مقالات علمية عامة.					
5.	كتابة أوراق بحثية علمية.					
6.	كتابة إجابات أسئلة الامتحانات.					
7.	كتابة الواجبات.					
8.	كتابة الملاحظات العلمية أثناء المحاضرات.					
قواعد اللغة						
أحتاج في مجال تخصصي إلى قواعد اللغة لـ:						
1.	كتابة جمل صحيحة ذات معنى كامل.					
2.	التحدث عن الحقول العلمية.					
3.	استيعاب ما يسمعه في المجالات العلمية.					
4.	ربط الجمل والفقرات العلمية.					
5.	استخدام ضمائر الربط في المقطوعات الإنشائية.					
6.	استخدام الأفعال بصيغتها الصحيحة بناء على زمن حدوث الفعل.					
مفردات اللغة						
أحتاج في مجال تخصصي إلى مفردات اللغة لـ:						
1.	تسهيل فهم النصوص العملية.					
2.	كتابة التقارير العلمية.					
3.	التحدث عن الحقول العلمية.					
4.	استيعاب الكلام في المحاضرات العلمية.					
5.	استنباط المعلومات العلمية.					
6.	الاستجابة لكل ما يقال في مجال تخصصي.					
7.	البحث في مواقع الويب التي تحتوي على بيانات علمية.					

## Appendix (IV): Academic staff's Questionnaire (Arabic)



جامعة القدس

كلية العلوم التربوية

الدراسات العليا

عزيزي الأستاذ الجامعي المحترم

يقوم الباحث بدراسة بعنوان " حاجات طلبة الكليات العلمية في اللغة الانجليزية من وجهة نظر الطلبة والمدرسين في جامعة القدس "، وذلك استكمالاً لمتطلبات نيل درجة الماجستير في أساليب تدريس اللغة الانجليزية في جامعة القدس، ولتحقيق هدف هذه الدراسة، يرجى التكرم بدراسة فقرات الاستبانة، والاستجابة لكل فقرة بما يناسبك، بحيث تكون الاستجابات موضوعية، لما لها من أهمية على نتائج الدراسة، علماً بأن هذه المعلومات سوف تعامل بسرية تامة ولن تستخدم إلا لأغراض البحث العلمي

شاكراً لكم حسن تعاونكم.

الجزء (أ): البيانات الشخصية

فضلاً وليس أمراً، الرجاء وضع إشارة (X) أمام ما يناسبك.

سنوات الخبرة:  أقل من 5  5-10 أقل من 10  10-15 أقل من 15  أكثر من 15

الكلية:  الهندسة  طب الأسنان  الطب البشري

الصيدلة  العلوم والتكنولوجيا  المهن الصحية

المؤهل العلمي:  محاضر  أستاذ مساعد  أستاذ مشارك  بروفيسور

الجزء (ب): ما هي أهم حاجات طلبة الكليات العلمية في اللغة الانجليزية؟

فضلاً وليس أمراً، الرجاء وضع إشارة (X) أمام ما يناسبك.

الحاجة	مهمة جدا	مهمة	متوسطة الأهمية	قليلة الأهمية	غير مهمة
مهارة الاستماع					
مهارة المحادثة					
مهارة القراءة					
مهارة الكتابة					
القواعد					
المفردات					

الجزء (ج): حاجات الطلبة.

الرقم	الحاجة	درجة كبيرة جداً	درجة كبيرة	درجة متوسطة	درجة منخفضة	درجة منخفضة جداً
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مهارات الاستماع الفرعية						
يحتاج الطالب في مجال تخصصه إلى مهارة الاستماع لـ:						
1.	استيعاب النصوص العلمية.					
2.	فهم المصطلحات العلمية.					
3.	فهم الأسئلة العلمية.					
4.	فهم المحاضرات العلمية.					
5.	فهم المشاريع العلمية.					
6.	التفاعل في المؤتمرات العلمية.					
7.	استيعاب عروض شفوية علمية.					
مهارات التحدث الفرعية						
يحتاج الطالب في مجال تخصصه إلى مهارة التحدث لـ:						
1.	استخدام المصطلحات العلمية.					
2.	التعبير عن المعلومات والبيانات للأجانب الذين لهم ارتباطاً بمجال التخصص.					
3.	نقاش المواضيع العلمية باللغة الانجليزية.					
4.	استخدام مصطلحات غير متعلقة بالتخصص باللغة الانجليزية.					
5.	التحدث بالمصطلحات والمفاهيم العلمية باللغة الانجليزية.					
6.	صياغة أسئلة علمية.					
7.	التفاعل مع المتخصصين في المجالات العلمية.					
مهارات القراءة الفرعية						
يحتاج الطالب في مجال تخصصه إلى مهارة القراءة لـ:						
1.	فهم المصطلحات والمفاهيم.					
2.	فهم المطبوعات.					
3.	فهم المصطلحات غير المتعلقة بمجال التخصص.					
4.	تحليل المساقات العلمية.					
5.	استيعاب البحوث والمجلات العلمية.					
6.	حل الواجبات العلمية.					
7.	استيعاب المطبوعات العلمية.					



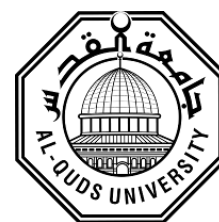
الجزء (ج): حاجات الطلبة.

الرقم	الحاجة	درجة كبيرة جداً	درجة كبيرة	درجة متوسطة	درجة منخفضة	درجة منخفضة جداً
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مهارات الكتابة الفرعية						
يحتاج الطالب في مجال تخصصه إلى مهارة الكتابة لـ:						
1.	كتابة تقارير علمية.					
2.	كتابة مواضيع علمية.					
3.	كتابة بيانات علمية موجزة.					
4.	كتابة مقالات علمية عامة.					
5.	كتابة أوراق بحثية علمية.					
6.	كتابة إجابات أسئلة الامتحانات.					
7.	كتابة واجباتهم.					
8.	كتابة الملاحظات العلمية أثناء المحاضرات.					
قواعد اللغة						
يحتاج الطالب في مجال تخصصه إلى قواعد اللغة لـ:						
1.	كتابة جمل صحيحة ذات معنى كامل.					
2.	التحدث عن الحقول العلمية.					
3.	استيعاب ما يسمعه في المجالات العلمية.					
4.	ربط الجمل والفقرات العلمية.					
5.	استخدام ضمائر الربط في المقطوعات الإنشائية.					
6.	استخدام الأفعال بصيغتها الصحيحة بناء على زمن حدوث الفعل.					
مفردات اللغة						
يحتاج الطالب في مجال تخصصه إلى مفردات اللغة لـ:						
1.	تسهيل فهم النصوص العملية.					
2.	كتابة التقارير العلمية.					
3.	التحدث عن الحقول العلمية.					
4.	استيعاب الكلام في المحاضرات العلمية.					
5.	استنباط المعلومات العلمية.					
6.	الاستجابة للأسئلة العلمية.					
7.	البحث في مواقع الويب التي تحتوي على بيانات علمية.					

## Appendix (V.): Interviews' Questions

Al-Quds University  
Deanship of Graduate Studies  
Faculty of Educational Sciences



### Interview's Questions

Dear academic staff,

The researcher conducts this study, i.e. **”Determining English Foreign Language Needs for Undergraduate Students in Scientific Faculties from Students' and Academic Staff's Point of View at Al-Quds University”**, to complete the requirements for obtaining a master's degree in English language teaching methods at Al-Quds University. In order to achieve the objective of this study, please study the questions of the interview and answer them in an objective manner. As a reminder, all of your answers will be used for scientific research only and be kept strictly confidential.

#### Questions:

**Q1) What are the most important English language needs at the scientific faculties?**

English language skill	Very important	Important	Moderately important	little important	Not important
Speaking					
Listening					
Writing					
Reading					
Grammar					
Vocabulary					

**Q2) What is the purpose of teaching scientific specialization in English language?**

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Q3) Which language (Arabic or English) is more used in the lectures?  
What is ratio?

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Q4) Are they weak in language skills? What is the reason for this weakness?

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Q5) How are you dealing with this weakness as far as 70-90% of the course is in English?

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Q6) What about speaking and listening for learning scientific terminology?

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-Q7) Do you agree to divide English language courses into two tracks (humanities and scientific)?

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## Appendix (VI) List of Arbitrators

### Appendix (vi.).List of Arbitrators

No.	Name	Specialization	Institution
1.	Dr. Mohsen Adas	Curriculum and Methods of Teaching	Al-Quds University
2.	Prof. Afif Zidan	Curriculum and Methods of Teaching	Al-Quds University
3.	Dr. Gassan Sarhan	Curriculum and Methods of Teaching	Al-Quds University
4.	Dr. Jamal Nafi'	English	Al-Quds University
5.	Dr. Buad Al-Khales		Al-Quds University
6.	Dr. Imad Al-Zeer	Engineering	Al-Quds University
7.	Dr. Ahmad Amro	Pharmacy	Al-Quds University
8.	Dr. Maha Nahal	Health Professional	Al-Quds University
9.	Dr. Inad Nawaj'a	Mathematics	Hebron University
10.	Dr. Nimr Abu Zahraa	English Literature	Hebron University
11.	Dr. Jamal Makhamara	English Literature and Translation	Ministry of Interior
12.	Dr. Nabil Al-Jundi	Curriculum and Methods of Teaching	Hebron University
13.	Lecturer Na'il Abu Arquob	Translation and Linguistics	Al-Quds Open University
14.	Lecturer Sara Sarahna	Arabic Literature	Al-Quds Open University
15.	Lecturer Saleem Abu 'Akeel	Curriculum and Methods of Teaching	Al-Quds Open University

## Appendix (VII) Facilitating Letter

Al-Quds University  
Faculty of Educational Sciences  
Deans Office

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

جامعة القدس  
كلية العلوم التربوية  
مكتب العميد

التاريخ: 2018/10/10

المشرفون الأكاديميون  
بالتاريخ: ٨٠ ٨٠ ٨٠٢

حضرة الدكتور حنا عبد النور المحترم  
نائب الرئيس للشؤون الأكاديمية  
حضرة د. صمير أبو الكايم  
الرجاء طاعة وبعده،  
تحية طيبة وبعد،

يقوم الطالب مصعب يوسف عيسى عبدربه ورقمه الجامعي 21611236 ، بأجراء دراسة  
تهدف للتعرف الى احتياجات طلبة الكليات العلمية لمهارات اللغة الانجليزية ، مع العلم أن  
تخصص الطالب اساليب تدريس اللغة الانجليزية وكان المشرف على رسالة (1) د. زياد  
قباجة رحمه الله ، والمشرف الحالي على رساله (2) د. ايناس ناصر .  
عنوان الدراسة:

"Determining the English Foreign Language Needs for Undergraduate  
Students in Scientific Faculties from Studens and Supervisors Point of  
View at Al-Quds University"

لذا نرجو من حضرتكم تسهيل مهمة الطالب المذكور أعلاه وذلك لتطبيق الدراسة على  
الكليات العلمية ( طلبة الكليات ومدرسيهم) في الجامعة خلال الفصل الدراسي الحالي الأول  
2019/2018 .  
د. ايناس ناصر

شاكرين لكم حسن تعاونكم

د. ايناس ناصر  
عميد كلية العلوم التربوية

Tel/fax 02-2794913 - Jerusalem P.O. Box 20002  
تلفاكس 02-2794913 - القدس ص.ب 20002

## Appendix (VIII.) Interviews' Transcriptions

### Interviews' Questions

**Q.1) What are the most important English language needs at the scientific faculties?**

The number of the interviewed Academic Staff from all the scientific faculties at Al-Quds university is eight, seven males and a female.

#### Academic staff's rating of the importance of the six language needs

Needs	Frequencies	Degree
Speaking	5	Very important
Listening	4	Very important
Writing	8	Very important
Reading	5	Very important
Grammar	5	Very important
Vocabulary	5	Very important

Five of interviewed Academic Staff focused on integration of these needs in learning courses in scientific faculties, and a gap will form if one of them is separated.

**A. F (Health professional):** He said "all these needs are very important and integrated".

**T.J(Pharmacy):** He claimed that "writing skill is important because it includes all needed skills, when the students write, they practice most of these skills at the same time, he also added writing is the output of our department and university. It is the last stage of any topic or course. Have joined a course called (learning by writing) at university. This course focused on the art of writing, how to write".

**Y.S: (Engineering):** At first, he seemed not satisfied with this question, then he said that "all of these needs are very important with different degrees, speaking and writing are the most important. Grammar and vocabulary are moderated importance, but all of them are integrated and we can't separate them".

**R.G (Pharmacy):** She told that "all skills are very important, focusing on writing".

**J.A(Science):** He said that "I believe grammar is little important, but writing and reading are the most important needs, but speaking is less than writing and reading".

**Y.B(Science):** He said that "vocabulary and writing have a crucial role in learning maths, but grammar is little important. Speaking, listening and reading are moderated importance".

**M.A(Science):** He said that "speaking is the most important needs is learning science, because practicing the language is the key for learning the texts and books...etc. He also added that all these needs are integrated, we can't separate them".

**I. K(Science):** He concentrated on the integration of these needs in learning and teaching chemistry at Al-Quds university. He said that "those needs are receptive and productive, so students can't produce any output without receiving the inputs".

## **Q2) What is the purpose of teaching scientific specialization in English language?**

**Y.S: (Engineering):** He told that "there are a lot of purposes for teaching our courses in English language . This reminds us to look at the subject itself. I mean to enrich engineering that students should know in English language, because English is the language of science in general. I cannot say all, but most of the resources available are written in English. And it is also important for high studies; if someone wants to carry out his/her study abroad. Also, the new tools in the work fields are in English language, students should be familiar with this new tools in English language. In other point, the new researches articles are in English, and technology is developed fast. So, in our field (computer engineering) all the customers and companies deal with English language, so we get students to be ready in the future to communicate with customers quite perfectly. At work. Take for example, programming. It is completely taught by English. They need English for both studying and working purposes. He added that the resources are old, but the foreign resources are modern and the world is developed very quickly. It is difficult to Arabize the resources, because it takes a lot of time, and there is no standard translation. This issue is very big, As a Academic Staff, we don't have time to Arabize or alternate English resources into Arab resources".

**R.G (Pharmacy):** He said that "the main purpose is that English considered the communicative language all over the world. All the scientific fields have specific English resources which are updated frequently. There is a gap between the theoretical and practical aspects because there is no practice for English language outside the lectures. All the leaf sheets that the medical companies write are English especially in drug's companies".

**J.A(Science):** He said that "I insist on teaching our courses using English language for a number of reasons, for example, English is a global language. It is used in high studies, science resources are in English, also, we do not know what the translation reliability of Arabized books is. Other thing is that we do not have standard translation in the Arabic world. Nevertheless, Arabic Language Academy has been trying to standardize these foreign terminologies, but it failed. Every Arab country, not all, has its own translation. If we want to communicate with other countries abroad, we should be familiar with English language, because the knowledge fields are extended all over the world. As an another important issue, in Al –Tawjihi curriculum in biology, all the information that have studied are the same in our courses at our department, but in Al-Tawjihi, those information are in Arabic, students get 95% as an average, but here, we teach the same information in English language, and the average is very low, why? Because they have big problems that refer to English language itself".

**Y.B (Science):** He said that "teaching our courses in English language in our universities refers to political decisions. I'm against teaching science or mathematics in English language, because it is not our language. Arabic language is the mother of the languages in the world. I insist the low academic achievements refers to the difficulty of English language for our students. If the students learn mathematics in Arabic language, the achievements will rise and rise. The indicator for that is the high achievements in Al-Tawjihi curriculums which taught in Arabic language if it is compared with the achievements in our department. Students can join English courses within three to six months outside the university to be able to communicate effectively in English language. Practicing the language is the main point to deal it".

**T.J (Pharmacy):** He said "that refers to many reasons, the most important one is globalization. This depends on the resources, articles, books, researches, reports. English has grown to become one of the most important languages not just at Al-Quds University but also all around the world. It is used as a tools for communication in different subjects, and pharmacy is mostly a western product. So English is needed in most of discipline, not for study purposes but also for career purposes. For example, I am teaching some courses, It is impossible to find any Arabic reference regard to these courses. You might find one, but it does not give the right explanation as it is in English. Also, All the drug companies or medical organizations deal with English especially in the information that have written on the leaf sheets or reports of those drugs . Doctors write their patients' reports in English language. So, English is the era's language. That is why I have insisted on teaching in English".



**M.A(Science):** He said "that refers to many purposes. Here, in physics department, many research aspects required a good English language students, especially in high studies. Science and technology are one of fields that are developed frequently. They are updated, and you know science, and other sources of technology are Western products. References, journals and tools are all in English. English has a crucial role for future".

**I. K(Science):** "As you know, English is an international language in all the fields of education. The purposes of teaching our courses in this language are vocational and academic. So, most of the scientific resources updated frequently in English. Modern empirical researches have done with English language. Our university tries to enhance gradulators to be ready for work fields according to the updated developments in all the works aspects".

**A. F (Health professional):** "There is no modern parallel curriculums in Arabic language deal with our specialization(nursing). I hope to teach our courses in our faculty in Arabic language. I respect and estimate Syria which teaches medicine with Arabic, and that is a great indicator for Arabic language to be the mother of all languages all over the world. From my work experience in Al- Maqased hospital, I met gradulators who graduate from Syria. At the beginning they face obstacles in dealing with specialized language, then through incorporation with their works field, they overcome these obstacles easily. Generally speaking, English language is an "important international language in the era of globalization". It is extremely important for science students in their academic and even occupational life. Most research papers in the field of science are in English, and the same is for science books, journals, magazines, and internet resources. English language helps them be able to communicate with experts in the field at the international level".

**Q3) Which language (Arabic or English) is more used in the lectures? What is ratio?**

**Y.S: (Engineering):** "It depends, for example, at the first level, the language is an obstacle. I use Arabic more than English, but in other levels, I use English more. Students will be more familiar with terms and concepts later. I believe all the Palestinian universities have the same system. The discussions in the lectures are Arabic. Exams are English, and language is part of the exam. So, I mix between both with different ratios according to the issues and students level. English seems to be extremely needed by both students and practitioners as translation is still a problematic issue. There has been problem regarding translation in terms of

standardization as the Arabic Language Academy has not yet reached an agreement regarding most recent scientific terminology. This issue has caused misunderstandings between Arab practitioners, as every country or researcher has translated words differently" ..

**R.G (Pharmacy):** "All the explanation slides are in English, I demonstrate them by using Arabic language with 20% ratio. Students interact in the lectures in Arabic more than English. They sometimes write answers of exams in Arabic language".

**J.A(Science):** "It differs according to the skills, 40% of speaking is Arabic, whereas 100% is in reading and writing. In general, I use Arabic nearly 60%, and English is nearly 40%. That refers to the students' level and subject itself".

**Y.B(Science):** "From my experience, in a previous year, I had students from Bard college and other colleges. Students from Bard college are fitter than others in English, so, I faced a difficulty in dealing with both kinds of students at the same lecture. Bard college's students speak and write English quiet perfect. So, I advised administration of the university to divide those students into two lectures separately. In other lectures, I try to balance between the level of students' understanding, and I use Arabic to demonstrate the misunderstanding things. In general, I translate the terms into Arabic, and I use English 50% in the whole lecture".

**T.J(Pharmacy):** (*In a comic way*), he said "(Arabizi) and he laughed. I write all things in English, I demonstrate them in English, then I translate into Arabic in order to give chances to interact and understand for students who are weak. Approximately, I speak (50%) of my lecture in English, but all the writings and exams are in English. English and Arabic are integrated in my lectures".

**M.A(Science):** "I use English approximately 75% in my lectures. I write all things in English. Most of students speak English, some of them speak Arabic. The written things are English".

**I. K(Science):** "It is difficult to use English for 100% in chemistry lectures, because students differ in their levels. Some of my lectures are in English, but that affect on the students achievement and understanding. All the terms are in English, then I explain them by Arabic. I translate sentences between text's lines. In General, I use (2:1) for English language".

**A. F (Health professional):** "I use integration between English and Arabic. That depends on the subject and the student's level. For example, I use 50% Arabic language for undergraduate students, whereas (70%) for graduate students or more, because they are fitter than undergraduate students. In General, most of my lectures are fifty fifty".

**Q4) Are they weak in language skills? What is the reason for this weakness?**

**Y.S: (Engineering):** "Yes, of course. All students have weakness, because English is foreign language. It is not our language, so this weakness is partly normal, but students have high degrees weakness. The main cause for this weakness is the educational system in Palestine".

**R.G (Pharmacy):** "Yes, we are suffering in our department from this weakness. She summarized the causes with the educational system, schools, the society, less of loyalty, decreasing of encouragement for studying".

**J.A(Science):** "Yes, our students have a weak background at those skills, that refers to the traditional teaching strategies in the schools. Private schools are better than others, may be, they use modernity in teaching more than governmental schools".

**Y.B(Science):** "Yes. This weakness refers to the traditional educational system in Palestine. Spontaneous promotion from class to class is another sub-reason. Permissiveness in educational restrictions also is a great sub-reasons. The reasons for this weakness are many with different degrees".

**T.J(Pharmacy):** "Yes, there is general weakness, education in schools lacks of extra curriculums, lacks of speaking, listening in the classrooms, and helping aids. They didn't let students to express about themselves in English language. They based on the simple things. They didn't let them to depend on themselves in learning. Teachers give students information ready to keep and recite only without understanding. They didn't let them to analyze, evaluate and combine information together. For example, sometimes, I ask our students: What did you do this morning till now? They can't answer. They don't know the meaning of simple words such as (get up). They don't know the forms of the verbs. They don't know the components of the sentences, they don't have personality to speak in front of his colleagues in the lectures ...etc. Those phenomena are from the behaviors in the schools. So the main reason is the educational system in our country".

**M.A(Science):** "Yes, the educational system and schools in Palestine are the most important reason for this weakness. Education in Palestine is suffering from the updates and modernity that is happening nowadays in the world, and we are in the technology era. Education in Palestine lacks of modernity. Also, students don't have perfect background in English language skills. Our country doesn't enhance and motivate students to depend on themselves in learning and follow modernity. Lacks of educational aids and tools is another reason. The reasons are many".

**I. K(Science):** "Yes, students are very weak in language skills, especially students who graduated from governmental school. Not all, but most of them are weak. That is

on the contrary of students who graduated from private school such as (Friends school) or others. They are better than governmental schools. This weakness due to many reasons, the most important one is the educational system in Palestine. The policy also effects on this weakness, and we don't have forget that Palestine is considered one of the growth countries".

**A. F (Health professional):** "Yes, all the students have weakness at all these skills with different degrees. This weakness mainly refers to low level in the educational system in Palestine, that causes low achievement in the courses in our department. Relating to my experience, I'm a lecturer at Al-Quds university for (28) years, I noticed big differences between students in the past and nowadays. Students in the past have high level of achievement, on the contrary, students nowadays are not the same. They are worse than the past. They depend on the social media in studying. They don't depend on themselves. They get assignments from each other. There is no loyalty to the books or university. They also depends on ready slides that the lecturers prepare. So, the reasons are many with different degrees".

**Q5) How are you dealing with this weakness as far as 70-90% of the course is in English?**

**Y.S: (Engineering):** "I'm not specialized in teaching English language, and I don't have enough time to treat this weakness, but I treat this weakness by adding the activities and exercises for students in English language. Also, I encourage students to depend on themselves by giving them simple keys and decreasing my explanations and demonstrations. He added, I noticed that there is no benefit from English language courses that the university gave to students, and don't let students to be perfect in the language. I noticed that from the feedback that companies we deal".

**R.G (Pharmacy):** "I always ask them to depend on themselves in doing assignments and exams. I give them extra curriculum".

**J.A(Science):** "I depend on the main book in my course and I have designed a book with Arabic explanations with simple language and easier pictures and demonstrations. Also I treat this weakness by asking students to search on websites about new information. That let them to depend on themselves in learning. I advise them to watch and listen to videos on internet".

**Y.B(Science):** "Students who are in the first level, they don't have science terms, so I translate the texts and terms into Arabic. In other levels, students become familiar with those terms, they can speak English more than the first level. In the exams, sometimes I clarify some questions in Arabic, but they answer them in English with (95%)".

**T.J(Pharmacy):** "English is a big problem for our students. If they learn in Arabic, the achievement will be better, but the cause of low achievement is English language. I give my students texts and ask them to summarize them within two pages, that helps students to understand and interact. Through those summarizations students be familiar with the content. Also It gives them opportunities to use language connectors, new vocabulary items, correct form of the parts of speech and the required elements of the language. I accustom my students to read extra texts and article depending on themselves, then I ask them to summarize them orally in front of their colleagues. Those strategies give students overconfident and good personality. The obstacle of that is the short time. Schools should encourage students to do that in their classrooms".

**M.A(Science):** "Our students have good English skills, sometimes I demonstrate the difficult information by Arabic".

**I. K(Science):** "Some students ashamed of themselves, they don't have self-confidence. They can't speak in front of their colleagues. So I encourage them to do that in my lectures. Let's tell an example, there is an Italian student and Chinese, Italian one went to study in America, but he didn't know English, but he tries many times, he became familiar with it. Chinese tries and tries but he failed because hid was afraid. I also give them science text in order to analyze them using their own words".

**A. F (Health professional):** "I'm not specialized in English language, but I follow many strategies to overcome this weakness. For example, I ask them to write their assignments by their hands (hand writing), because they cut and paste the answers from internet, that help them but it is not perfect. In spite of taking intensive courses in the language but they are weak. I usually give them feedback about their mistakes and correct it. That needs a lot of time, and I have another aims for my courses. For example, (**phenomena, phenomenon**), (**theses, thesis**), I distinct and clarify between them for students".

#### **Q6) What about speaking and listening for learning scientific terminology?**

**Y.S: (Engineering):** "The main problem is lack of practicing the language in our community. Students listen without understanding the content. They speak but it is very weak. They lack of communicative skills".

**R.G (Pharmacy):** "They are important, but I think they need these skills unless they wish to study abroad. I think they do need listening as some lectures are taught in English".

**J.A(Science):** "Speaking is less important than listening. They need speaking if they wish to study abroad".

**Y.B(Science):** "They are weak at those skills, I encourage them to use internet to communicate and listen for videos related to their specialization".

**T.J(Pharmacy):** "They don't have an ability to communicate and speak, they don't have communication skills. They listen without understanding".

**M.A(Science):** "Oh, yes. Those skills are big problem. Students can't express about their ideas, because they lack of vocabulary items, grammar, and communication skills. They listen, but they don't understand the content. Others can't listen well".

**I. K(Science):** "These skills are difficult for students, because there is no practicing for the language, they can't communicate. Listening is easier but they can't understand the content".

**A. F (Health professional):** "Students try to listen and speak, some of them have an ability to do that, most of the don't have an ability or willingness to do that. The exams are written by English, and the answers should be in English, (99%) of students write the answers of exams in English. Why? Because, in the future, they will present international exams in English language such as (American Bord)".

**Q7) Do you agree to divide English language courses into two tracks (humanities and scientific)?**

**Y.S: (Engineering):** "I'm against dividing courses, because the language is practicing. If engineering students listen news with English language on (BBC) for example, their skills will develop".

**R.G (Pharmacy):** "Yes, of course. University should do that".

**J.A(Science):** "In 1990, I was a student at Al-Quds university, there was a course called (English for science), the doctor of this course was foreign. It was good course because it was specialized with science. So, I'm with this division. I advise to bring foreign doctors to give some of the courses".

**Y.B(Science):** "Yes I agree. I advise university to give level exams and then divide students according to their levels".

**T.J(Pharmacy):** "Yes, of course. I advise to specialize courses for health faculties such as medicine, pharmacy, health professional, dentistry. I also advise to measure the results after four years".

**M.A(Science):** "Yes, of course. Science has its own features and specialty. No necessity to merge science faculties students with other faculties. I advise to learn specialized courses".

**I. K(Science):** "Yes, of course. Each specialization has its own traits. For example. the terms in science differ than the terms in medicine".

**A. F (Health professional):** "Partially, the policy university divides students into their specialty according to the time of the lectures and their programs. In my opinion, division has advantages and disadvantages according to the lectures programs, which differ from faculty to another".

## حاجات طلبة الكليات العلمية في اللغة الانجليزية من وجهة نظر الطلبة والمدرسين في جامعة القدس

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هدفت هذه الدراسة إلى التعرف إلى حاجات طلبة الكليات العلمية في اللغة الانجليزية من وجهة نظر الطلبة والمدرسين في جامعة القدس. تبنت الدراسة المنهج الوصفي والذي يتلاءم مع هذه الدراسة. تكون مجتمع الدراسة من طلبة ومشرفي الكليات العلمية في جامعة القدس والبالغ عددهم (5052) طالباً و(141) مدرساً. تم تطبيق الدراسة على عينة عشوائية طبقية من مجتمع الدراسة من العام الدراسي (2018-2019). حيث شملت عينة الطلبة على (1048) طالب وطالبة، في حين تم اختيار (80) مشرفاً. تكونت أدوات الدراسة من استبانة خاصة بالطلبة والمشرفين، ومقابلة للمشرفين. تم التأكد من صدق الأدوات بعرضها على عدد من المحكمين، كذلك تم التأكد من ثباتها باستخدام حساب معامل الثبات (كرونباخ ألفا). تم جمع بيانات الدراسة، ومن ثم تحليلها وتفسيرها باستخراج المتوسطات الحسابية والانحرافات المعيارية و ANOVA و "t test" و "LSD".

أظهرت نتائج الدراسة أن طلبة الكليات العلمية بحاجة ضرورية لجميع المهارات اللغوية الأساسية والفرعية بالإضافة إلى حاجتهم إلى القواعد والمفردات في الكليات العلمية من وجهة نظر الطلاب والمشرفين وبدرجة عالية.

وتوصلت الدراسة إلى أن أهم حاجات الطلبة من وجهة نظر الطلبة كانت مرتبة على النحو التالي: المحادثة، والاستماع والقراءة والمفردات والكتابة والقواعد. كما تبين أن درجة الحاجة كانت بدرجة عالية ومرتبطة على النحو التالي: المفردات، الاستماع، المحادثة، القراءة، الكتابة والقواعد من وجهة نظرهم.

كما توصلت الدراسة إلى أن درجة الحاجات كانت مرتفعة جداً من وجهة نظر الطلبة والمشرفين. وتبين أن أهم حاجات الطلبة من وجهة نظر المشرفين كانت مرتبة على النحو التالي: الكتابة، القراءة، التحدث، الاستماع، المفردات والقواعد. وكان ترتيب درجة الحاجات من وجهة نظر المشرفين مرتبة على النحو التالي: الاستماع، الكتابة، المفردات، القراءة، المحادثة والقواعد. وتبين عدم وجود فروق ذات دلالة إحصائية لاستجابات الطلبة تعزى لمتغير الجنس، المستوى الأكاديمي، ومستوى التحصيل. ووجود فروق تعزى لمتغير الكلية.

كما تبين عدم وجود فروق ذات دلالة إحصائية لاستجابات المشرفين تعزى لمتغير الخبرة والمؤهل، ووجود فروق تعزى لمتغير الكلية. كما أظهرت نتائج المقابلة بضرورة تكامل مهارات اللغة الانجليزية في مساقات الكليات العلمية.



وبناءً على النتائج، أوصى الباحث بضرورة مراجعة المناهج الدراسية في الكليات العلمية والمدارس من أجل تلبية حاجات الطلبة خاصة المحادثة والكتابة والاستماع، ومراجعة نظام التعليم في فلسطين يواكب حاجات الطلبة.