

التحديات التي تواجه طلبة السنة الرابعة بكلية العلوم الصحية بجامعة غريان عند ترجمة المصطلحات الطبية الى اللغة الإنجليزية

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مستخلص:

يفحص هذا البحث التحديات التي تواجه طلبة السنة الرابعة بكلية العلوم الصحية في ترجمة المصطلحات الطبية الى اللغة العربية. أعطي المشاركون في الدراسة عدد من المصطلحات الطبية لترجمتها الى اللغة العربية وتحليلها الى مكوناتها الأساسية. كما وزعت إستبانة على المشاركين لمعرفة الإستراتيجيات التي أستعملت في الترجمة إلى اللغة العربية. أظهرت النتائج فشل عدد من المشاركين في ترجمة المصطلحات الطبية الى اللغة العربية وفشل الكثير منهم في تحليل المصطلحات الى مكوناتها الأساسية. كما أظهرت نتائج الإستبانة تفضيل معظم المشاركين لإستخدام قاموس إنجليزي-عربي عند ترجمة المصطلحات الطبية. توصي الدراسة بتدريس المصطلحات الطبية مع التركيز على مكوناتها ومعانيها باللغة العربية.

Challenges facing 4th Year Health Sciences College Students in Gharyan University in Learning/Translating English Medical Terms into Arabic

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Abstract

This study investigated the challenges facing 4th year Health Sciences College students in Gharyan University in translating/ learning English medical terms into Arabic. Two types of instruments were used to collect quantitative data needed for answering the research questions. The study participants were asked to translate and analyse some given medical English terms into Arabic, and via a questionnaire items they were asked to select the strategies they used to translate and analyse the given terms. The results revealed that many of the participants failed to translate the given medical terms into Arabic and most of them failed to analyse the terms into their individual segments. The analysed questionnaire data showed that most of the participants prefer to use bilingual dictionaries in translating the given terms. Explicit teaching of the medical terms translation with the focus on the meaning of the affixes and the roots of the terms may help in achieving correct translation of any English medical terms into Arabic language.

Key words: challenges, medical terms, quantitative data, questionnaire.

I. Introduction

Understanding the meaning of medical terms and how to use them in communication and writing medical reports by 4th Year Health Sciences College Students in Gharyan University are vital in passing many of the college

assigned courses and find a place in the working market after graduation. Most of the courses are taught in English and using translation to understand the terms used needs special training. Learning the medical terms by heart is not enough to master the meaning of the given terms.

Medical terms are special words used by health care personnel for effective and accurate communication. Most of them are derived from *Greek* or *Latin* old languages. English language borrowed most of the medical terms from the old European languages because the science of medicine was very much rooted in the ancient Greek and Latin volumes.

Studying the etymology of the medical terms and using word analysis technique is the master key of obtaining the correct meaning of the terms students face in their academic journey. However, learning how to apply the word analysis technique is a big challenge to most of the students studying in the field of health and medicine. Using dictionaries and the internet with little knowledge of how the medical terms are created and formed may take a long time and effort with humble results.

This paper focuses on the challenges facing the students of the college of Health Sciences in learning and translating medical terms they encounter in their academic study. By analyzing some of the compound medical terms to their original segments, the Health Sciences College students in Gharyan University may be in a better position to understand and use these terms in their future career.

I.1. Problem

Health Sciences College students in Gharyan University find it difficult to translate and understand the meaning of many of the medical terms they are exposed to along their four years of study. This could be due to the complex structure of these terms and the different meanings of the elements that compose the terms. This may negatively impact the performance of their academic study and later affect their future career.

1.2. Research questions

This research work is trying to answer the following questions:

1. Are the study participants able to translate some given English medical terms into Arabic?
2. Are they able to analyse the given medical terms to their segments and give their meaning?
3. What are the strategies used by the study participants to translate the given medical terms?
4. What are the obstacles faced by the study participants when translating the English medical terms into Arabic?

I.3. Aims

4th year Health Sciences College students in Gharyan University study English medical terminology as an obligatory course, which they have to pass in order

to graduate and join the working market with confidence. Keeping that in mind, this paper tried to help the targeted students to:

1. Help the study participants to translate any medical terms into Arabic language.
2. Analyse the medical terms to their individual segments to facilitate their translation.
3. Discover the strategies the study participants used to translate the medical terms into Arabic.
4. Diagnose the obstacles the study participants face in their process of translating medical terms into Arabic.

I.4. Significance

To understand and be able to translate medical terms into Arabic for 4th year students studying EFL in the colleges of Health Sciences is paramount. Most of the obligatory medical/health courses assigned to them are taught in English which means that their academic progress is based on their ability to understand and translate many medical terms into Arabic.

The expected results of this study will help in diagnosing the obstacles the study participants face in translating medical terms into Arabic and suggesting strategies to help in learning and translating medical terms.

This study is a humble contribution by the researcher to the teaching of ESP. It is hoped that the results may shed some light on the importance of explicit teaching of the medical terms to the HSC students in Gharyan University, which English university lecturers may benefit from.

I.5. Scope of the study

4th year university students from the College of Health Sciences in Gharyan University are the participants of this study. They are studying medical terms as an obligatory course in the academic year (2022-2023). The participants are from both anesthesia and laboratory departments. The syllabus assigned for both departments is similar and the participants are taught by the same lecturer, (the researcher of this study).

II. Study background

Medicine is defined by Mousavinasab (2011) as the science and art of healing. It encompasses a variety of health care practices evolved to maintain and restore health by the prevention and treatment of diseases. Hence a medical term is a word or a portion of language used specifically in the medical and health fields. As Davis (1985, p.60) stated, "...a medical term refers to words, compounds, abbreviations and acronyms that are related to medicine." It is believed that analyzing medical terms into their basic segments help in understanding their full meaning, which may be different from their individual meaning.

English language borrowed many medical terms from old Latin and Greece which were the major source of the medical terms used in contemporary European languages such as English, French, Italian and Spanish. Word formation and derivation are common strategies of adding new vocabulary to languages and English is no exception. As stated in Hutton (2002, p.1), most of the medical term roots used in English nowadays are derived from Greek or

Latin words; whereas other roots are of Arabic, Anglo-Saxon or German origins.

Medical terms are composed of what linguists call *morphemes*, which are attached to the root of the compound word. These morphemes could be prefixes or suffixes. For example, the term (*hypothermia*) is structured of two morphemes- the initial part (*hypo*) which means *low*, and the end part (*thermia*) which means *temperature*. So as written in Oxford dictionary, the full meaning of this term means a dangerous condition in which the body has an abnormally low temperature. On the other hand, if the morpheme *hypo* is replaced by *hyper*, the meaning will be *above* or *over*. This means that changing the prefix may change the meaning of the compound medical term.

In the process of forming the medical terms, in most cases the vowel (*o*) is inserted between the prefix and the suffix to guarantee a smooth transition. For example, (*Myoplasty*), which means surgical repair of a muscle, has two morphemes- the first is *my* and the second is *plasty*. Here, the letter (*o*) is inserted between the two phonemes for easy pronunciation.

Students studying in medical and nursing colleges are exposed to medical terms related to the names of diseases such as measles, leprosy and cancer; conditions such as pneumonia, depression, and conjunctivitis; parts of the body such as lungs, heart, and stomach; symptoms such as fever, constipation and diarrhea; and medical equipment such as nebulizer, MRI (Magnetic resonance imaging), and sterilizers.

The mentioned above students also need to learn about the abbreviations and acronyms used in the health environment such as HIV (human immune deficiency virus), MSU (mid-stream urine sample), and CVA (cerebrovascular accident). The increasing number of these abbreviations is used by health personnel in their written and oral communication. New university graduates who join the work in hospitals and private and public clinics usually face a serious challenge in understanding and using these abbreviations especially in their early working days.

When analysing medical terms to their origins, it can be said that, basically, they are classified into three groups: a. words which are taken from ordinary English vocabulary; b. words which are taken from another language; c. words which have been invented. (Argeg 2015, p.60)

In terms of the segments that build up the medical terms, most of them have two or three parts: root, suffix and prefix. Hutton (2006, p.2) defines roots as “the basic medical words. More are derived from early Greek and Roman (Latin) words. Others have their origins in Arabic, Anglo-Saxon and German.” For example, the Greek noun (nephros) which means (kidney) is the root of the term nephropathy which means (disease of the kidney). A prefix is the segment which is found at the initial part of the word. Each prefix adds a new meaning to the word it is attached to. For example, the prefix (anti) which means (against) is the first segment in the medical term (antibiotics) which means (the substance that can destroy or prevent the growth of bacteria and cure infections). And finally, suffix is the segment which is found at the end of the medical term and

gives it a new meaning. For instance, the suffix (logy) which means (the study of) in the term (laryngology) can have the meaning “the study of the causes and treatments of disorders of the larynx” (Mosby’s Medical, Nursing and Allied Health Dictionary, 1998, p.917)

Translation is defined by Argeg (2015, p.18) as “the process of establishing equivalence between the source language (SL) and the target language (TL).” It is the job of the qualified translator to find the exact equivalence in the source language which is the most challenging stage of translation. Finding the exact neologism and equivalence, when translating medical terms from English to Arabic, can be difficult for terminologists and specialists especially with the large number of terms that continually enter the language of medicine and health field.

Translating medical terms into Arabic needs experience and full knowledge of the etymology and meanings of the word segments. Ismail (2001, p. 68) argues that “out of over 90 schools of medicine in the Arab world, only 5 teach in Arabic others use English apart of medicine schools in Tunisia, Morocco, Algeria and Lebanon they use French.” It is highlighted by El-Wifati (2016, p.5-6) that translating medical terms becomes much easier once the translator gains experience in the proceeds of the word-formation of medical terminology and methods of decoding its morphemes. However, English as any other

language has its own grammatical, lexical and textual systems which distinguish it from Arabic that is completely different from English.

As highlighted by Bell (1991, p.36) “experienced translators need to know (a) how propositions are structured (semantic knowledge), (b) how clauses can be synthesized to carry propositional content and analyzed to retrieve the content embedded in them (syntactic knowledge), and (c) how the clause can be realized as information-bearing text and the text decomposed into the clause (pragmatic knowledge).

A large number of English-Arabic dictionaries and glossaries have been published to help translators in doing their job successfully. Aljarf (2018, p.102) counted many medical dictionaries such as “The Unified Medical Dictionary (UMD), Babylon's Medical Dictionary, Hitti's Medical Dictionary, KudoZ open glossaries (KOG), Medical Dictionaries of the Arabic Language Academy, Medical Dictionaries of the Arabization Center in Morocco” . These publications were published by the assistance of private and public organizations.

Different from other scientific terms, medical terminology presents problems which are different from other specialized domains, particularly the problem of determining the exact neologism or equivalent. For example, Argeg (2015) found that her study participants lack experience and practice in translating medical terms because the dictionaries they used have not been updated for a long time. “The problem is that many technical and scientific terms such as

abbreviations, collocations, compounds and new terms cannot be found in such dictionaries as dictionaries are not usually up-dated from time to time.” (Ibid. p.41)

To summarise, it can be said that learning and translating medical terms is not an easy task to do because of the complex structure and the etymology of most of the medical terms. Most of the studies reviewed above came to the conclusion that students studying medicine and nursing found difficulties in learning and translating the medical terms they exposed to in their academic study. The next part of the study will present the procedure conducted to collect the data needed for answering the research questions.

III. Research methodology

Considering the research problem which stated that Health Sciences College students in Gharyan University find it difficult to understand the meaning of many of the medical terms they are exposed to in their four years academic study due to the complex structure of these terms and the different meanings of the elements that compose the terms. To collect the quantitative data needed for this study, the following procedure was followed:

1. Selecting the research sample. All of the students studying in the 4th year of College of Health Sciences in Gharyan University will participate in this study.

2. Testing the sample about their ability to translate a number of given medical terms into Arabic, analysing them to their basic segments and giving their individual meaning.
3. Asking the study participants to complete a questionnaire with some items inquiring about the strategies the participants used to analyse some given medical terms into their individual segments.
4. Analysing the collected data by using the SPSS computer software.

III.1. Research questions

The data collected by this work will answer the following questions:

1. Are the study participants able to translate some given English medical terms into Arabic?
2. Are they able to analyse the given medical terms to their segments and give their meaning?
3. What are the strategies used by the study participants to translate the given medical terms?
4. What are the obstacles faced by the study participants when translating the English medical terms into Arabic?

III.2. Participants

4th year university students studying health sciences in the College of Health Sciences are the participants of this study. The total number participated in this study was ninety six. (94.8 percent) of the participants were female students and only 5.2 percent were male ones. Most of the students joining the College of Health Sciences are females. This could be attributed to the social belief that

nursing is a feminist profession. The average age of the study participants is about twenty two years. In general, their ages vary from twenty to twenty four years old. Their English level is about intermediate since all of the participants passed three obligatory medical English courses which were given to them along their three years of study. The researcher asked for the consent of the participants and all of them accepted to participate when they were informed that giving their names are optional.

Number	Minimum	Maximum	Mean
96	20.00	24.00	21.97

Table (1) Minimum, maximum and mean age of the study participants

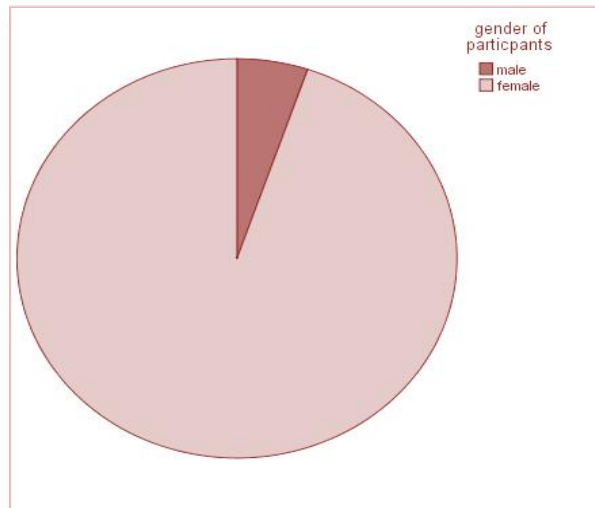


Figure (1) Gender of the study participants

Gender	Frequency	Percent	Valid percent
Male	5	5.2	5.2
Female	91	94.8	94.8
Total	96	100.0	100.0

Table (2) Gender of the study participants

III.3. Instruments

To collect quantitative data needed for the study, the following instruments are conducted:

1. Some medical terms were given to the study participants to translate into Arabic. Those terms have been given to the students along their four years' academic study as a part of their English syllabus.
2. This was followed by asking the study participants to analyse the given terms into their basic segments and giving their individual meaning. An example was given to guide the participants to the correct process that should be used.
3. A questionnaire focusing on the strategies used by the participants to translate the medical terms they face in their academic study was given to the study participants to complete. The items focused on the strategies used for translation such as using context clues, using dictionary or asking their tutor.

III.4. Data analysis

The SPSS computer software was used to analyse the quantitative data collected by the instruments mentioned above. In this section the test results and the questionnaire responses are analysed in details:

1. Regarding the terms given for translation, the test was marked out of ten. The minimum mark achieved was two out of ten and the maximum was 10 out of ten. However, the average mark achieved was about five. Fourty three participants (i.e. 57%) obtained less than five marks and sixteen participants (i.e.16.6) obtained five marks. The rest (i.e. 26.4 %) of the participants obtained more than five marks. It is clear that the percentage of the participants who achieved good marks is less than the participants who achieved poor marks.

Table (2) Minimum, maximum and the average of the translation test marks

Number	Minimum	Maximum
Average 96	2.00 4.97	10

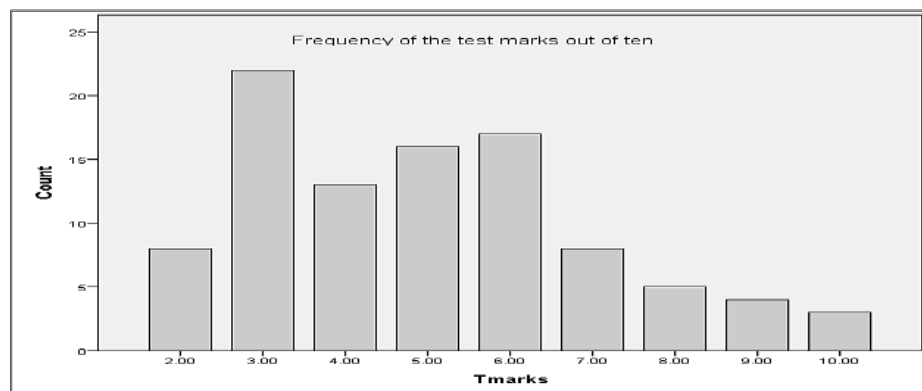


Figure (2) Frequency of the translation test marks

2. In the second part of the test, the participants were asked to analyse the medical terms given to them for translation. The result of this test was as follows:

The maximum mark achieved by the study participants was 10 out of ten, the minimum was zero and the mean mark was (2.8), which is very low. Sixty seven participants (i.e. 69.8%) obtained less than the passing mark which is five. Ten participants (i.e. 10.4) obtained five out of ten and only (19.8%) of the participants obtained more than five marks. The percentages stated above give vivid idea about the poor performance of the participants in this test.

	Number	Minimum	Maximum	Mean	Std. Deviation
Word Analysis Mks	96	.00	10.00	2.8125	2.90304
Valid N (listwise)	96				

Table (3) Word analysis test marks

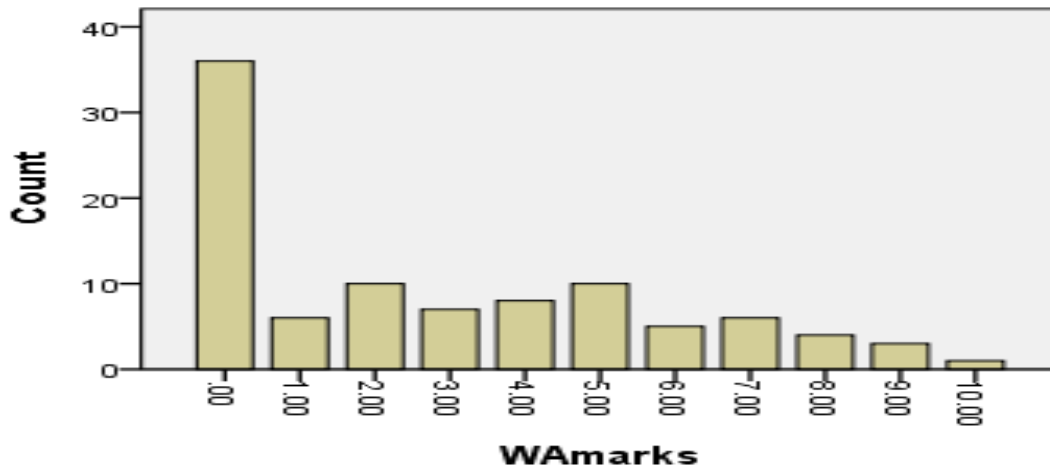


Figure (3) Frequency of word analysis test marks.

3. The second part of the study instruments was a questionnaire. The items of the questionnaire focused on the strategies used by the study participants to translate and analyse the medical terms given to them in the translation test analysed above. The results analysed quantitatively as follows:

-The first item of the questionnaire asked the study participants about the strategies they used when translating medical terms into Arabic”. (35.4 %) of the participants stated that they used the context clues to analyse the given English medical terms into Arabic, (30.2%) of the participants adapted the technique of word analysis, and (31.3%) checked the dictionary for the correct translation.

Table (4) Strategies used in translating medical terms

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	3	3.1	3.1	3.1
Using context clue	34	35.4	35.4	38.5
Valid Using word analysis	29	30.2	30.2	68.8
Using dictionary	30	31.3	31.3	100.0
Total	96	100.0	100.0	

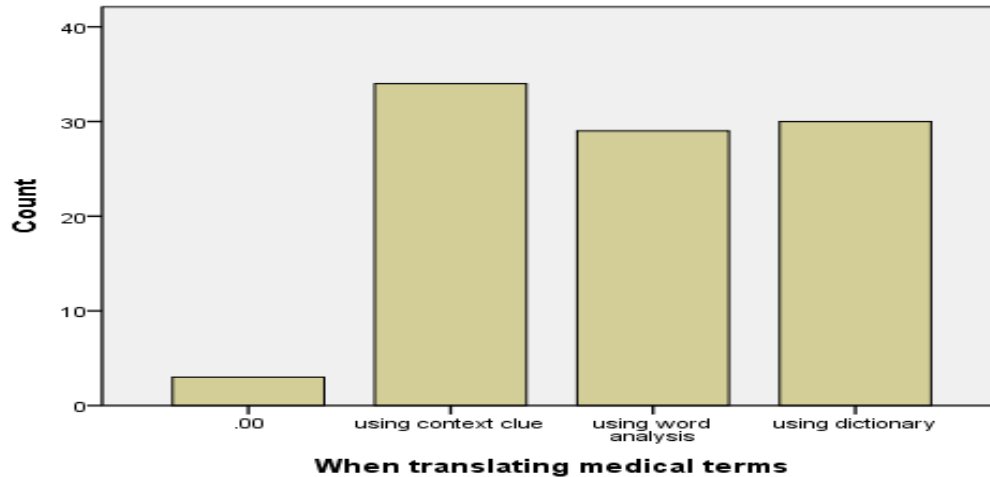


Figure (4) Strategies used for translation

-The second item was about analyzing the medical terms into their individual segments. Three options were given: reading about the history of the medical term, using the dictionary to obtain the meaning of the word segments, and asking senior knowledgeable authority such as teacher or colleague. Seven participants (i.e. 7.3%) emphasized the importance of checking the origin of the individual segments of the term in order to form the total meaning of the term, while five participants (i.e. 5.2) preferred to ask their teacher or colleague.

However, eighty one participants (84.4%) chose the easy way which is consulting bilingual dictionary.

Table (5) Analysing words to their components

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	3	3.1	3.1	3.1
Using etymology	7	7.3	7.3	10.4
Valid Using dictionary	81	84.4	84.4	94.8
Asking teacher/colleague	5	5.2	5.2	100.0
Total	96	100.0	100.0	

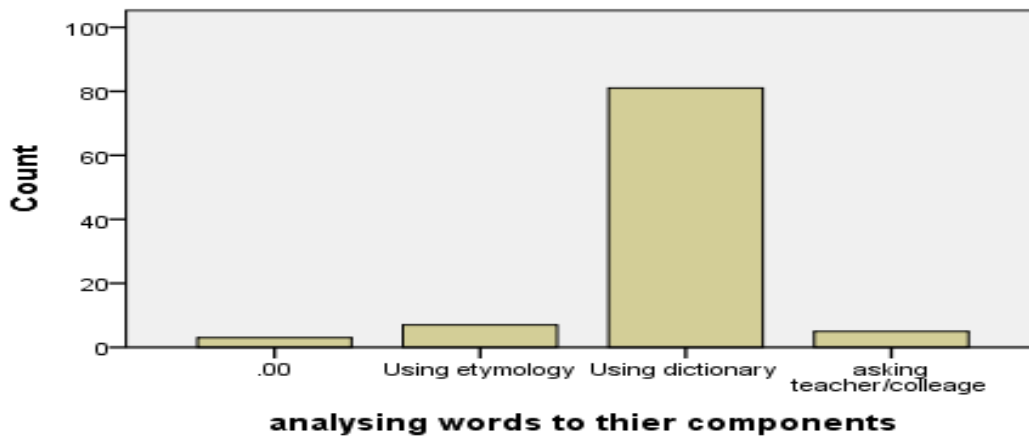


Figure (5) Analysing medical terms to their components

-The third item was about the type of dictionary the participants prefer to consult. More than half of the participants (i.e. 54.2%) preferred to use bilingual dictionaries because it is easy and fast, while only three participants (3.1%) prefer to consult monolingual dictionary. The pragmatic ones (i.e.40.6 %) of the participants stated that they consult both types of dictionaries. Yet, two

participants (i.e.2.1%) had no response. It is clear that consulting the monolingual dictionary is the most difficult option for most of the study participants.

Table (6) Consulting dictionary for translation

	Frequency	Percent	Valid Percent	Cumulative Percent
.00	2	2.1	2.1	2.1
Using Bilingual dictionary	52	54.2	54.2	56.3
Valid Using monolingual dictionary	3	3.1	3.1	59.4
Using both dictionaries	39	40.6	40.6	100.0
Total	96	100.0	100.0	

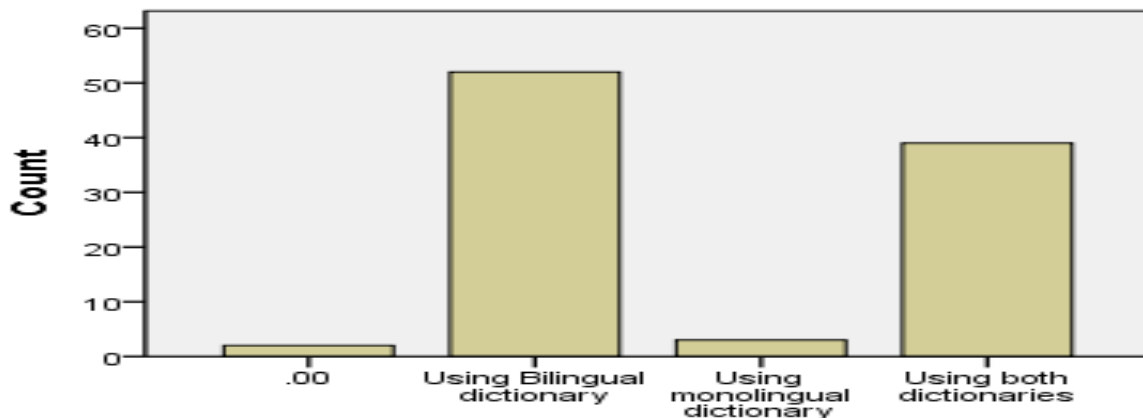


Figure (6) Using different types of dictionaries

IV. Discussion

The results of the study suggested that more than half of the participants failed to translate the given English medical terms into Arabic and the majority failed to analyse and give the correct meaning of the segments that compose most of

the medical terms given to them in the second part of the test. In addition, using bilingual dictionaries is the common phenomenon among most of the study participants. Consulting monolingual dictionaries and seeking the etymology of the medical terms need a high level of English language proficiency. Most of the College of Health Sciences students learn the medical terms by heart, but when they are asked to give the meaning of the segments of the term, whether it is a prefix, root or suffix, they fail to do so.

This is in agreement with Argeg (2015) who found that her study participants lack experience and practice in translating medical terms. Even when consulting dictionaries, students either find it difficult to explain the term or they could not find the abbreviations they try to study. Many medical dictionaries are not updated periodically, while creating new technical and medical terms is a continuous process. Every day new terms are added to the field of health and medicine by the scholars of the field. Bell (1991) emphasized that experience and practice are vital in tackling the hustle of translation. However, El-Wifati (2016) assured that translating medical terms becomes much easier once the translator gains experience in the proceeds of the word-formation of medical terminology and methods of decoding its morphemes.

V. Conclusion and recommendations

It is concluded that translating and learning English medical terms is a serious challenge for most of the College of Health Sciences students because most of the medical terms are borrowed to English language from languages such as Greek or Latin. In many cases, both the spelling and the pronunciation are something new to our students. In addition, many terms are composed of more than one segment which makes it difficult for the learners to obtain the full

meaning of the term that could be different from the individual meaning of the word segments.

Using bilingual dictionaries is the easy way out of translating English medical terms into Arabic; however, many dictionaries are not up-dated periodically which makes it unhelpful in many occasions. Abbreviations and similar equivalence are not available in many bilingual dictionaries. A good background of the SL and the TL is essential in having correct and understandable translation.

It is recommended that students learn about the translation theories and strategies before exposing to the task of translation. Explicit teaching of the strategies needed for translation pave the way for correct translation from English to Arabic in general and translating the medical terms in specific. Teaching students the basic morphological theories with the focus on affixes and the meaning of word roots can simplify the process of translation and make it easy for the students to translate any medical term. When teaching the medical terminologies which are combined of two or more affixes, students should be able to identify and define prefix, suffix, and the word root. This can be done by using modern technology such as presenting posters on the smart board or using other Relia which can help students enjoy the lesson and eager to learn more about the etymology of the medical terms.

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