

## Chapter One

### 1.0 Introduction

Translation is a mental activity in which we render the meaning of a given linguistic discourse from one language into another. It is known that the quality of translation does not require just good command of foreign language; it also requires excellent knowledge of the field in which the translation is to be done. From this point we can say that involve a number of different types of texts related to different fields such as technology, science, economy, medicine and so on. According to has been mentioned this study will be concerned with medical translation.

Medical translation concerns a number of subject areas including pharmacology, medical rescue system, surgery, obstetrics, pediatrics, psychiatry, internal medicine, oncology and other fields of specialty as well as other disciplines such as law or administration. (Karwacka. March 2017).

A number of texts are translated due to regularity requirements concerning new medical products and medical devices or new applications of pharmacological products. What also generates the demand for translation of medical texts is need to be conform to the formal requirements applicable to clinical trial registration and product or making new drugs, which involves translating the registration documents and other necessary materials to the local languages. New findings are published in English, which means that a number of research reports are translated. The demand of medical translation is also the result of emigration. What is more translators prepare medical files for patients who seek medical help outside their own country of residence. But sometimes translators of medical texts face challenges, some of which are the subject of the study. They include medical terminology, lexical equivalence of medical texts, readability and quality issue.

This study focus on identifying the difficulties of translating medical discourse encountered by Sudanese translators, as it aims at exploring the main problems that translators may face when rendering medical discourse into Arabic and to prove that translators of medical discourse are not required to have a good linguistic knowledge only but also he must have a medical background as well. Therefore, the researcher believes that the best person who fits to be translator of medical discourse is a person who has a medical background as well as linguistic competence.

### **1.1 Statement of the Study Problem**

After a variety of investigations during MA courses and through close observation about medical translation, the researcher noticed that Sudanese MA students of translation face a number of challenges when rendering medical discourse into Arabic, some of which are considered in this study. They include medical terminology, lexical equivalence of medical texts, readability and quality issue. Also it has been noticed that almost all of medical terms used mainly in medical field are borrowed from Latin and most of the scientific methods that characterize modern Western medicine are traceable to classical Greek. Despite the fact that some of the circulated terms have no equivalents in Arabic as well as that medical language tends to have many abbreviations in which the translator is required to find out what these abbreviations stand for. Therefore, it seems that medical register is characterized by distinctive linguistic features that require careful attention by any translator.

### **1.2 Objectives of study**

This study will focus on some linguistic problems encountered by Sudanese MA students of translation when rendering medical discourse into Arabic which will be the primary concern of this study. The researcher will try to achieve the following objectives:

1. Identifying the difficulties of written or oral medical discourse genres encountered by medical translators.

2. Identifying the semantic and syntactic differences between English and Arabic medical discourses.
3. Exploring the main problems that may arise from translating medical discourse into Arabic.
4. Suggesting new remedies for solving these problems.

### **1.3 Questions of the study**

This study attempts to find answers to the following questions:

1. To what extent do Sudanese MA translation students face linguistic hurdles in rendering the medical terminologies into Arabic?
2. To what extent are MA courses satisfactory for providing good knowledge about medical translation?
3. How do translation teachers view the performance of MA students of translation?
4. What are the most common strategies adopted by Sudanese MA students of translation in translating medical terms from English into Arabic?

### **1.4 Hypotheses of the Study**

This study set out to test the following hypotheses

1. Sudanese MA students of translation are not familiar with medical terminologies when rendering the text into Arabic.
2. Sudanese MA students of translation are not familiar with the medical lexical equivalence when rendering the text into Arabic.
3. MA courses and materials do not enable MA students of translation to be good at translating medical texts into Arabic.
4. The translation of medical texts into Arabic creates a great challenge for MA students of translation.

### **1.5 Significance of the study**

This study is significant for scholars in the field of translation, students of English language, translators and linguists.

For the lecturers, it is expected that this study will give them knowledge about translation problems encountered by Sudanese MA students of

translation in rendering medical discourse into Arabic, and it helps them to satisfy the learners' needs based on their procedure used thus more effective teaching- learning process can be design.

The result of this study will give information about medical translation problems which can be a start point for researchers to study further in medical translation field.

The result of this study can be used as source to help investigating students' challenges in translating medical terminologies into Arabic, because ignorance of medical terminologies may result in awkward translation even failure.

It can be used as consideration in choosing material in translation text to help student understand suitable equivalent to sentence and translation units of the medical text.

It is also important because it points out the actual practice of translators reports to when they have to match solutions for semantic gaps with both specialized and non-specialized audience needs

## **1.6 Methodology of the Study**

The researcher uses both the descriptive-analytical method in order to tackle the problems and try to find possible solutions for them. The researcher will follow two main tools for the needed data collection.

Translators will be chosen purposely to represent the open access texts for they are mostly requested to translate medical documents into Arabic. The sample texts will be selected from medical books related to different medical areas, thus these samples represent limited access to text type. And a questionnaire will be distributed to a research sample drawn mainly from translation teachers.

## **1.7 Limits of the Study**

This study is limited to investigate linguistic hurdles encountered by Sudanese translators in rendering medical discourse into Arabic particularly

in the area of obstetrics and gynecology. So, it is beyond the capacity of this research to cover all the areas of specialty in the medical domain. 70 MA students of translation (35 males and 35 females) will represent the sample of this study. This is during the year (2019-2020) and 4 professional translators will be selected to participate in judging the quality of the translated text. And the questionnaire will be distributed to 40 teachers for they are required to give precise opinions and view the performance of Sudanese MA students of translation.

### **1.8 The Design of the Study**

The thesis made up of five chapters. chapter one is about the basic of writing and comprises an introduction, the problem statement, the objectives and the questions of the study, definitions of terms, significance of the study and limitations of the study. Chapter two involves the theoretical and the empirical literature. The third chapter is about the methods and the procedures used in this study. Chapter four comprises the discussion of analysis and the results. Chapter five summarizes the conclusions of the whole.

### **1.9 Definition of Terms**

The following terms and abbreviations are being used in this study would be explained just for the purpose of this thesis.

ALPAC: Automatic Language Processing Advisory Committee

BC: Before Christ

BE: Basic English

CAT: Computer Assisted Translation

EFL: English as a Foreign Language Education

FME: Fundamental Medical English

ICD: Informed Consent Document

ICF: Informed Consent Form

IBM: International Mission Board

LSP: language service providers

MAT: Machine Assisted Translation

MAHT: Machine-Aided Human Translation

NGOs: Non-governmental Organizations

PCC: Patient-Centered Care

SL: Source Language

SME: Specialized Medical English

TL: Target Language

TM: Translational Medicine

PM: Personalized Medicine

USA: United State of America

WHO: World Health Organization

## **Chapter Two**

### **Literature Review and previous studies**

#### **2.0 Introduction**

This chapter consists of two parts. Part one reviews the literature related to the translation in general such as definitions, concepts, history, theories, types, techniques, strategies and methods of translation. Moreover it reviews the most important approaches and models that were created by the pioneers in the domain of translation such as Nida, Peter Newmark, and Baker etc. As it also reviews literature related to the medical translation, while part two points out the previous studies that were conducted on this field.

#### **2.1 Definition and concepts of translation**

Nowadays as the distance between people and nations has been reduced by science and technology, translation became more important. It is a means of international cooperation and national integration. Through translation people can bridge the geographical distance and culture, so knowledge, trends, ideas, literary development and thought of one nation can be transferred to the others.

At this point it is necessary to present precise definitions and concepts of science and art of translation.

Oxford dictionary (1974) defines translation as: a) “the process of translating words or text from one language into another” b) “a written or spoken rendering of the meaning of a word or text in another language”, “the conversion of something from one form into another”.

Translation according to Encyclopedia Britannica (2012) is “the act or process of rendering what is expressed in one language or set of symbols (source text) by means of another language or set of symbols (target text)”.

It has been given a variety of definitions by scholars and linguists. The theorists define translation according to its nature whether it is free or literal, exact or natural, or to the recent tendencies in semantics that considers translation as a communicative act.

Catford (1963) considers translation as a linguistic process that is an operation performed on languages substituting a text in one language for a text in another. Consequently to Catford translation is “the replacement of textual material in one language (SL) by equivalent textual material in another language (TL)” Catford definition relies to a large extent on comparative linguistics.

Nida and Taber (1982), Translation is considered as a process that consists of the operation of transference in which the purpose is to produce an effect on the TL reader. This means reproducing in the receptor language the closest natural equivalent of SL text. Therefore, they defined translation as “the reproduction in receptor language of the closest natural equivalent of source language message, first in terms of meaning and second in the terms of style”.

Nida’s (1980) definition is drawn upon Chomsky’s generative-translational model which analyzes sentences into a series of related levels governed by rules which all have their roots in linguistics where the text considered being the ultimate unit of analysis.

According to Newmark’s (1988) “translation is a matter of an exercise in applied linguistics”. He also states that translation is a craft consisting in the attempt to replace a written message or statement in one language by the same message or statement in another language.

Seleskovitch (1977) regards translation as a movement from linguistic meaning to sense and from sense to expression of sense. He notes that, in translation there are always seems to be an attempt to adjust the expression of sense to the linguistic meaning of original language.

Thus, as it is seen definitions of translation varies due to the different perspectives that were given by various scholars and linguists.

Foster (1958) Translation is a mental activity in which a meaning of given linguistic discourse is rendered from one language to another. It is the act of transferring the linguistic entities from one language in to their



equivalents in to another language. Translation is an act through which the content of a text is transferred from the source language in to the target language.

According to Ghazala (1995), "translation is generally used to refer to all the process and methods used to convey the meaning of the source language into the target language".

Ghazala's definition focuses on the notion of meaning as an essential element in translation. That is, when translating, understanding the meaning of source text is vital to have the appropriate equivalent in the target text thus, it is meaning that is translated in relation to grammar, style and sounds.

According to Wikipedia, the free encyclopedia (2012), "Translation is the communication of the meaning of a source-language text by means of an equivalent target language text. The English language draws a terminological distinction (which does not exist in every language) between translating (a written text) and interpreting (oral or signed communication between users of different languages); under this distinction, translation can begin only after the appearance of writing within a language community".

According to Hermans (1999) noted that, translation can and should be recognized as a social phenomenon, a cultural practice. He said that we bring to translation both cognitive and normative expectations, which are continually being negotiated, confirmed, adjusted, and modified by practicing translators and by all who deal with translation.

## **2.2 History of Translation**

The history of translation has been a topic that is long been debated by scholars and historians.

Encyclopedia Britannica (1987), Translation exists because men speak different languages. There is no doubt that since the existence of language and the use of that language among people, there has been a dire need for translation. Before the invention of defusing writing, translation was instantaneous and oral. The earliest known documentary evidence of

translation was found Babylon in Iraq which was one of the most famous city of antiquity, (it was the capital of Southern Mesopotamia from the early second millennium BC, and the capital of Neo-Babylon Empire in the sixth and seventh centuries BC).

Hakeem A (1989) stated that, during the reign of Hammurabi (the sixth and best known of the Amorite dynasts), the population of Babylon was multilingual. This created a need for translators to translate legislative decrees. Part of translator's work was to collect and classify lists of words in different languages (dictionary), some of the old dictionaries were written on mud tablets and Nineveh tablets.

Kwint (2016) stated that, it is widely accepted that translation predates the Bible. The bible tells of different languages as well as giving insight to the interaction of speakers from different areas. The need for translation has been apparent since the earliest days of human interaction, whether it is for emotional, trade or survival purposes. The demand for translation services has continued to develop and is now more vital than ever, with businesses acknowledging the inability to expand internationally or succeed in penetrating foreign markets without translating marketing material and business documents.

Kwint (2016) noted that, the word 'translation' comes from a Latin term which means "to bring or carry across". Another relevant term comes from the Ancient Greek word of 'metaphases' which means "to speak across" and from this, the term 'metaphase' was born, which means a "word-for-word translation". These terms have been at the heart of theories relating to translation throughout history and have given insight into when and where translation has been used throughout the ages.

Religion played such a critical role in translation development that the church even names Saint Jerome as the patron saint of translation.

According to André Lefevere (1992) the growth of Translation Studies as a separate discipline is a success story of the 1980s. The subject has developed

in many parts of the world and is clearly set to continue developing well into the 21st century. Translation studies bring together work in a wide variety of fields, including linguistics, literary study, history, anthropology, psychology and economics.

### **2.2.1 History of Translation in the Western world**

Jacobsen (1958) stated that, writings in translation go back to the Roman and claims that translation is a Roman invention, though translation is as old as language itself. He also added that, the translator's role is a bridge for "carrying across" values between cultures has been discussed since Terence, (a Roman playwright who adapted Greek comedies into Roman in the 2nd century BCE). The debate relating to sense-for-sense translation vs word-for-word translation also started around that time

According to Merie Lebert (2017) the translation of the Hebrew Bible into Greek in the 3rd century BCE is regarded as the first major translation in the Western world. The dispersed Jews had forgotten Hebrew, their ancestral language, and needed the Bible to be translated into Greek to be able to read it. This translation is known as the "Septuagint", (a name that refers to the seventy translators who were commissioned to translate the Hebrew Bible in Alexandria, Egypt). The "Septuagint" became the source text for later translations into Latin, Coptic, Armenian, Georgian and other languages. Related biblical texts in Hebrew were also translated into Greek in Alexandria during the two following centuries.

As Zakhir (2008) pointed out, the invention of printing techniques in the 15<sup>th</sup> century developed the field of translation and helped in the appearance of early theorists.

Bassnett-McGuire (1980) noted that, the activity of translation has a long-standing tradition and has been widely practiced throughout history, but in our rapidly changing world its role has become of paramount importance. Nowadays, knowledge in which cultural exchanges have been widening, has been increasingly expanding and international communication has been

intensifying, the phenomenon of translation has become fundamental. It can be for scientific, medical, technological, commercial, legal, cultural or literary purposes, today human communication depends heavily on translation and, consequently, interest in the field is also growing.

### **2.2.2 History of Translation in the Arab world**

Hakeem (1989) stated that, during the Pre- Islamic period, the Arabs were not isolated because a great trade route passed along the flak of Arab Peninsula; it had contacts along its borders with the Egyptian, Greco-Roman and Indo-Persian. The influence of Northern and Central Arabia's relations with other nations and cultures is best shown in the considerable number of loan words from Persians, Aramaic, Syriac, Greek and Latin found in classical Arabic. The Lakhmide (in Al-Heera, Iraq) formed the connection between the Arabs and the Persians, while the Gassanids (in Al-Sham) formed the connection between the Arabs, Greeks and Romans. When Islam was established in Al-Madeenah Al-Munawarah, the prophet Mohammed (peace be upon Him) asked some of his companions to learn foreign languages so that he could communicate with non-Arabs. He asked (Zayed Ibn Thabit to learn the language and writing system of Hebrew or Syriac. Omer Ibn Alkhatib, the second Caliph, ease considered the first person to start the Arabization process during the first Islamic period. He founded (Dewan Aljund) (Department of Soldiers) to record the names of soldiers and their salaries. He also founded (Dewan Al-Bareed), (the post office), both Dewans were adapted from the Persian.

Hakeem (1989) also added that, when reached the Byzantine Empire (currently Istanbul)and Persia, the civilization of their nations affected the Arabs in many aspects, particularly the translation movement (of books) became highly active at that time Khalid Ibn Yazeid Al Amawi (the grandson of mu'aawiyah)was the first person who initiated the interest in translating non-Arabic books of knowledge. He learnt Chemistry and Astrology, Then he ordered the translation of many books in those two fields into Arabic. Baghdad

was the greatest ever translation centre, which served as a one-way transfer of learning and sciences from the Arab World into Europe.

Sofer (1999) mentions the Islamic and Arab major contributions to the field of translation, it played a critical role in making Islam the standard bearer of civilization as Medieval Europe was sinking into ignorance and backwardness. Islamic scholars served as a bridge between antiquity and the modern world. Many of its branches have grown on the trunk of Islamic culture, which through translation added a great deal to it in areas such as Mathematics and Medicine.

Mai Nour (2014) stated that, Arabic translation has its deep roots in the ancient history of mankind. Arabic cultures have always had an intrinsic role in spreading knowledge and science across nations throughout the ages. Arabic translation dates back to the 2<sup>nd</sup> century, when Arabs translated Persian history into Arabic, and it went through several stages of transformation since then. From mere interpretation among the Arab traders and neighbouring countries, through the era of prosperity and enlightenment during the Islamic golden age and lastly in the modern age embracing technology and globalization.

Mai Nour (2014) also added that, Arabs started to pay attention to translation with the rise of Islam, as Prophet Mohammed encouraged his followers to learn foreign languages and translate the Quranic verses and Islamic beliefs and teach them to other nations. Then it reached its peak during the 1st Abbasid Period and the establishment of the city of Baghdad, especially at the time of Caliph Al Mamoun, who built Bait Al Hikma (House of Wisdom), which was the greatest institute of translation at that time. During that time, the major Islamic capital cities of Baghdad, Cairo, and Córdoba became the main intellectual centres for science, philosophy, medicine, trade, and education, and scholars from different parts of the world sought to learn and transfer knowledge to and from Arabic. They were keen on translating the knowledge of the ancient civilizations into Arabic and Persian. Later on, all of

this knowledge which the Arabs developed was translated into western languages like Turkish, Hebrew and Latin.

### **2. 3 Significance of translation**

Roxana ((2016), Translation is important as a source of knowledge diffusion of every kind by understanding the development of every aspect of culture in other civilizations; people can also enrich their understanding of their own culture. Knowledge of the target culture is crucial for successful English Arabic translation

According to Abmber Burrow (2018), the skills of translation are becoming ever more important and desirable. Today's multicultural and multilingual society demands effective, efficient, and empathetic communication between languages and cultures.

She also added that, translation is necessary for the spread of information, knowledge, and ideas. It is absolutely necessary for effective and empathetic communication between different cultures. Translation, therefore, is critical for social harmony and peace. Translation is also the only medium through which people come to know different works that expand their knowledge. Translation enables effective communication between people around the world. It is a courier for the transmission of knowledge, a protector of cultural heritage, and essential to the development of a global economy.

Dingwaney and Maier (1995) stated that, Translation is not merely an interlinguistic process. It is more complex than replacing source language text with target language text and includes cultural and educational nuances that can shape the options and attitudes of recipients. Translations are never produced in a cultural or political vacuum and cannot be isolated from the context in which the texts are embedded

As David Katan (2004) noted, the translator is a bilingual mediating agent between monolingual communication participants in two different language communities' Therefore translators not only have to be

intermediaries between different language systems, but also have to be intercultural mediators.

Nida (1976) noted that, Translation as a process of conveying messages across certain linguistic and natural boundaries are an inevitable communicative activity. Translation is a mean of integration at national and international level. It may bridge the gap between different cultures. The knowledge changing trends, novel ideas, literary development and intra-community exchange of thoughts, all this is possible through translation. All major historical events and revolutions were delivered to the world of translation into different languages.

Moreover, translation helps in understanding the influence of one language on the other in a better way, as it involves comparison and contrast which enable the reader or the listener to explore the potential weakness of both source and target language. Translation trains the translators to search for most appropriate words to convey what is meant.

## **2.4 Types of Translation**

There are a bewildering number of different types of translation.

### **2.4.1 Scientific translation**

The translation of scientific research or documents relates to it.

Nida (1964) stated that, it is not easy at all to translate scientific terms that emerged in western developed countries languages into a language of third world countries which are still having financial and social problems.

Byrne (2006) claims that, scientific translation primary goal is to deliver scientific information; it aims at presenting well expressed information that may be used easily, properly and effectively. He referred to scientific translation as a communicative service, which offers new information for new audience, since scientific translation regarded as communication service; it

certainly involves three main people, which are the author, the translator and the reader.

Ghazala (1995) states that scientific translation is mainly about translating terms in the fields of science and technology of all kinds medicine, physics, chemistry, mathematics, computer science ... etc from one language into another. It is also considered as a technical translation where the main goal is to identify the situation described in the original. The predominance of the referential function is a great challenge to the translator who must have a good command of the technical terms and a sufficient understanding of the subject matter to be able to give an adequate description of the situation even function is a great challenge to the translator who must have a good command of the technical terms and a sufficient understanding of the subject matter to be able to give an adequate description of the situation even if this is not fully achieved in the original.

#### **2.4.2 Legal Translation**

According Wikipedia (2020) Legal translation is the translation of language used in legal settings and for legal purposes. Legal translation may also imply that it is a specific type of translation only used in law, which is not always the case. As law is a culture dependent subject field, legal translation is not necessarily linguistically transparent. Transparency in translation can be avoided somewhat by use of Latin legal terminology, where possible, but in non-western languages debates are cantered on the origins and precedents of specific terms, such as in the use of particular Chinese characters in Japanese legal discussions. In transparency can lead to expensive misunderstandings in terms of a contract, for example, resulting in avoidable lawsuits. Legal translation is thus usually done by specialized law translators. Conflicts over the legal impact of a translation can be avoided by indicating that the text is "authentic" i.e. legally operative on its own terms or instead is merely a



"convenience translation", which itself is not legally operative. Courts only apply authentic texts and do not rely on "convenience" translations in adjudicating rights and duties of litigants.

As it has been stated in Bee Happy (2020), there are many kinds of legal document translations that should be handled in a different method. The first type is legal document. The judicial text should also be translated in a special method. And some people also confuse the term with sworn translations. Many people do not know the right description of each and cannot distinguish among the three types of translations. Some people believe all of them are similar.

As Wilss (1994) stressed Legal translation is a special type of LSP translation involving cross linguistic communication in the legal context. Many aspects of translation, in particular in the field of LSP, transcend cultural boundaries and are, in some sense, universal. Simplifying somewhat, translation can be depicted as a domain of socio-culturally determined linguistic behavior with both culture-specific and universal components. In contrast to other types of LSP translation, such as medicine, science or technology, legal translation tends to involve more culture specific than universal components.

### **2.4.3 Economic Translation**

Hometkovksi (2008) stated that, the translation of economic text is highly demanded at banks, companies, professional accounts, and multinational corporations etc. this kind of translation confronts many difficulties in term of vocabulary elements, lexical, morphological or syntactic usage, most terms are composed of several lexical units, thus difficulty consisting not only in the declination of nouns, plural formation, verb conjunction, but also in the correct order of all elements constituting the compound unit. He says that, Knowledge of the terminology is not enough for

a good translation, but it is an important aid to obtain a specialized translation, as the terminology defines and systemizes the concept.

Usually for translating economic terms, the translator uses specialized bilingual and multilingual terminology sources for choosing the appropriate equivalences and contexts of use to confirm the correct term choice. Therefore, the quality of translation in this field should clarify accurately the content of the source text keeping its style and used form as being dealt with by native speakers of the target language, which involve identifying the semantic fields and the appropriate terminology as well.

#### **2.4.4 Literary Translation**

Literary translation implies the translation of all genres of literature, which include prose, drama and poetry.

Johnson (1999) describes literature as an apparently nebulous body of knowledge in oral or written form, an imitation of life, which reflects civilization and culture that covers every angle of human activities, culture, tradition and entertainment.

According to New mark (1988), a literary translator generally respects by taking into account the language structure, and the content whatever the nature of the text is.

Kelly (1979:42) writes that, a good literary translator has three major tasks ahead on him:

- A) He must understand the theme and the style of the original text.
- B) He must be able to reconcile the different linguistic structures of the texts.
- C) He must be able to reconstruct the original linguistic structures in the target language.

Lefevere (1988) maintains that, literature is one of the systems which constitute the system of discourses (which also contains disciplines like physics or law) usually refers to as a civilization or society. Literature for Lefevere is a subsystem of society and it interacts with other systems. He observes that there is a control factor in the literary system which sees that, this particular system does not fall too far out of step with other systems that make up society.

He observes that the system of literature is not deterministic, but it acts as a series of constraints on the reader, writer or rewriter. The control mechanism within the literary system is represented by critics, reviewers, teachers of literature, translators and other rewriters who will adapt works of literature until they can be claimed to correspond to the poetics and the ideology of their time.

#### **2.4.5 Machine Translation**

Andrea S. (2003), Machine translation (MT) has been both praised and criticized since the 1930's when it was first introduced. Today, MT much improved since then, is a vital tool for the human translator, although not without its problems. One important unresolved issue is the success of MT for different text types.

J.E. Holmström (1951) said that, "The resulting literary style from machine translation would be atrocious and fuller of 'howlers' and false values than the worst that any human translator produces". However, the idea that machines could be employed in some form of translation survives today and has arguably done so for the last 60 years since its birth in the mid-1930s, which incidentally predates that of the computer. The mid 30s saw the birth of a revolutionary idea, supported by the French-Armenian Georges Artsrouni and the Russian Petr Troyanskii: machines used as translation tools (Hutchins, unpublished). The latter not only envisioned an "automated bilingual dictionary", but also a "scheme for coding Interlingua grammatical roles". To

imagine that all this happened before the invention of the first computer is almost unthinkable.

The report that ALPAC (Automatic Language Processing Advisory Committee) produced in (1966) claimed that “there is no immediate or predictable prospect of useful machine translation”.

In (1975), Chomsky wrote: “as for machine translation and related enterprises, they seemed to me pointless as well as probably quite hopeless”.

Gross (1992) explains that, there are two main problems with machines and natural languages. The first is related to context and cultural issues. Computers are not able (currently?) to perceive the contextual and pragmatic information that humans can. Similarly, they are not aware of cultural differences which often surface in linguistic exchanges.

Arnold et al (1994) also support this point. The second is to do with the function of language. Conveying meaning is just one use of human language, but in addition there are several others such as: humor, establishing solidarity, sharing emotions and feelings without needing to convey any actual information, etc. Plays, poetry, advertising, newspaper articles and song’s lyrics are difficult to translate even for humans; hence for the reasons mentioned above, computers cannot provide quality translations for any of these pieces.

#### **2.4.6 Journalistic Translation**

Carmelita R. (2013) stated that, journalistic translation is a field that requires expertise using various techniques based on the context of the subject matter and in-depth knowledge of both the source and target languages. The journalistic translator must know and deftly control the different documentary sources of information in order to avoid misunderstandings in the translation. At the same time journalistic texts have their own conventions. The journalistic translator should be aware of these conventions and possess the necessary competence so that these texts work in a new linguistic and cultural

context. On occasions the translator needs to work like a journalist, and in some cases these specialized translators are journalists themselves.

She added that, these translators for instance must take into account that many plays on words cannot be directly translated into the foreign language as the meaning will be lost. They must therefore be able to reproduce the nuances of the source text in the target language in such a way that the translation remains true to the original.

Roberto Volden (2015) noted that, Journalistic translation has managed to establish itself as a subarea of research within Translation Studies, as the entries in the major encyclopedias and handbooks attest. Translation contributed to the birth of journalism in seventeenth-century Europe through a number of weekly and monthly pamphlets and bulletins. Additionally it was a cornerstone in news agencies and forged independence movements in the Americas.

#### **2.4.7 Computer Assisted Translation**

According to Wikipedia\_(2011), Computer assisted translation (CAT), also referred to as machine assisted translation (MAT) or machine-aided human translation (MAHT), is the use of software to assist a human translator in the translation process. The translation is created by a human, and certain aspects of the process are facilitated by software; this is in contrast with machine translation (MT), in which the translation is created by a computer, optionally with some human intervention. CAT tools are typically understood to mean programs that specifically facilitate the actual translation process. Most CAT tools have as following:

- (a) The ability to translate a variety of source file formats in a single editing environment without needing to use the file format's associated software for most or all of the translation process.
- (b) Translation memory.
- (c) Integration of various utilities or processes that increase productivity and consistency in translation.

Sam Yip (2018) stated that, Computer-Assisted Translation tools are also abbreviated as CAT tools. A CAT tool is software designed to help translators deliver translation faster and more efficiently. A CAT tool makes it easier to translate a document between languages by using a number of features such as: translation memory, automatic translation following glossaries, automatic translation quality checks, machine translation, and other automation technology.

He added that, there are many CAT tools out there, and traditionally most of these tools work offline on computers. Recent technologies, however, have led to an increasing number of cloud CAT tools where translators can access anywhere as long as they have an internet connection. At its core, a CAT tool breaks down text and document into “segments” and present the segments in a convenient way to make translation easier and faster. These segments will be worked on by a translator and stored in a database, known as “translation memory”, so that it can be re-used when similar text appears in the future. In recent years, with the breakthrough of AI technology, CAT tools also incorporate machine translation to generate a draft translation, enabling the translator to focus on post-edit instead of translating from scratch. All these features save a lot of time and also ensure consistent translation over time.

#### **2.4.8 Interpreting**

According to Newmark (1996), the information to be converted in translation can be written or oral (spoken) text. Professionally, the term translator is confined to the written text and interpretation to the spoken text. Thus, a translator translates a written text while an interpreter translates an oral text. The conversion process can be performed between any pair of related or unrelated languages or dialects regardless of time, space or any other relationships between them.

Keith (1983) noted that, Interpreters and translators are often discussed together because they share some common traits, e.g. both need a special

ability known as language combination. This enables them to be fluent in at least two languages and express thoughts and ideas clearly. Although some people do both interpreting and translating yet they are two different professions each requiring a distinct sort of skills and aptitudes and most people are suited for one or the other. Strong research and analytical skills, mental dexterity and an exceptional memory are also important. Interpreting is usually one of two forms: simultaneous or consecutive translating.

#### **a) Simultaneous Interpreting**

Keith (1983) stated that, this type requires interpreters to listen and speak at the same time. Usually, the interpreter begins to convey a sentence being spoken while the speaker is still talking. Simultaneous interpreters should be familiar with the subject that they are able to anticipate the end of the speaker's sentence. This type of interpreting is required at international conferences and used sometimes in court.

Keith (1983) added that, Historically, simultaneous interpreting is one of the newest types of translation which appeared around 1952 credit for the invention of it is given to the American businessman Edward Fillane .The earliest equipment (microphone, earphone and switching equipment) was manufactured by IBM in USA. President Eisenhower's interpreter Leon Dostert pioneered the development of its technology. The real need for simultaneous interpreting became evident during Nuremberg Trial in which English, French, Russian and German languages were used. This significantly reduced the time needed and improved the accuracy of translation.

#### **b) Consecutive Interpreting**

In this type, the interpreter listens to a section of speech then either summarizes it or relays the gist. This is more useful for one to one meetings and small groups. In contrast to simultaneous interpreting immediacy, consecutive interpretation begins only after the speaker has verbalized a group of words or sentences. Consecutive interpreters often take notes while

listening to the speaker, so they must develop some form of taking note or short-hand interpreter system.

Interpreters usually work at conferences that involve non-English speaking attendants. This includes international business and diplomacy. Although conference interpreter may work for any organization that afford foreign languages speakers usually, interpreters sit in soundproof booths, listening to the speakers through headphones and interpret into a microphone what is said. The interpreted speech is then relayed to the listeners through headsets. When interpreting is needed for only one or two people, the interpreter sits behind or next to the participant and whisper a translation of the proceeding.

## **2.5 Theories of Translation**

It might be useful to refer briefly to different views on this matter put forward by linguists and translation theorists.

S. Chau (1984) noted that, “it can be misleading to talk about translation theories as such as if there are properly developed theoretical models or entities carefully considered by practitioners, one is repeatedly reminded that there after all no significant translation theories the very existence, possibility and value of translation theories have been thrown into doubt”.

Catford (1965) argues that, 'the theory of translation is concerned with a certain type of relation between languages and is consequently a branch of Comparative Linguistics'. He distinguishes between different types of translation equivalence, i.e. textual equivalence and formal correspondence. He would naturally be concerned with translation equivalence as an empirical phenomenon. In other words, he is interested in formal correspondence. Unlike textual equivalence whose preciseness depends on the intuition of a competent bilingual informant or translator.

Nida's (1969) theory of translation consists of the three procedures of analysis, deep structure transfer, and restructuring. His refined theory includes



one more stage, namely testing. Analysis consists essentially in back-transformation to a near-kernel level. In this stage, the SLT must be read and studied carefully, and meaning must be extracted. Nida devises several stages of analysis, though in practice they overlap. They are:

- (1) lexico-grammatical features of the immediate units.
- (2) Discourse context.
- (3) Communicative context.
- (4) Cultural context of the SL.
- (5) The cultural context of the receptor language.

Nida (1969), in developing a theory of translation there are so often a number of wrong concepts that constitute problems for the study of interlingual communication: First, the idea that translation is a science and second, the assumption that translation depends on a theory of language that includes all classes of texts, audiences, and circumstances of use. Translation is not a separate science, but it often does represent specialized skills and can also require aesthetic sensitivity. Skilled translators must have a special capacity for sensing the closest natural equivalent of a text, whether oral or written. But translation is essentially a skill and depends largely on a series of disciplines, such as linguistics, cultural anthropology, philology, psychology, and theories of communication. In contrast with the various sciences, such as physics, chemistry, and biology, translation is an activity that all bilingual people can engage in without special studies of technical procedures. As efficient bilinguals they quickly sense the degrees of equivalence in comparable texts.

Bell's (1987) Discussions about theories of translation are too often concerned with distinctions between literary and nonliterary texts, between prose and poetry, or between technical articles on physics and run-of-the-mill commercial correspondence. But in order to understand the nature of translation, the focus should not be on different types of discourse but on the processes and procedures involved in any and all kinds of interlingual

communication Furthermore, a theory of interlingual communication should not be restricted to discussions between translating and interpreting (whether consecutive or simultaneous), since interpreting differs from translating primarily because of the pressures of time and exigencies of the setting.

The following is Nida's (1969) discussion which focuses mainly on translation theories from different perspectives. These theories are important for each translator to be aware of, for their crucial role in translation process as well as the assessment and evaluation of translation quality in this domain.

### **2.5.1 Philological Theories of translation**

Also called pre-linguistic evolved before the development of modern linguistics, approximately before the Second World War. They were formulated at a time when philology was the discipline that shouldered the responsibility of studying language. Philological theories of translation focus primarily on literary texts taking no interest in other fields such as science and technology, commerce, and law. Philological theories of translation deal with the problem of the equivalence of literary texts by comparing and contrasting the SL and the TL. They also focus on the literary quality, i.e. the form of the text and its stylistic features and rhetorical devices. One of the major preoccupations of philological theories of translation is the discussion of literary works of high quality such as Shakespeare's works.

Nida (1969), the philological perspective on translation in the Western World goes back ultimately to some of the seminal observations by such persons as Cicero, Horace, Augustine, and Jerome, whose principal concerns were the correct rendering of Greek texts into Latin. In the seventeenth and eighteenth centuries in Europe the philological orientation in translating focused on the issue of "faithfulness," usually bound closely to the history of interpretation of the text, something which was especially crucial in the case of Bible translations. For the most part, arguments about the adequacy of translations dealt with the degree of freedom which could or should be

allowed, and scholars discussed heatedly whether a translator should bring the reader to the text or bring the text to the reader.

Octávio Paz (1971) and Mounin (1963) helpfully described and discussed a number of the essential features and limitations of the philological perspective on translating literary works. Octávio Paz has the special gift of being able to discuss issues of literary translation with the touch of a literary artist, which indeed he is. And Georges Mounin has a way of delineating diverse opinions and judgments so as to perform an elegant balancing act.

### **2.5.2 Philosophical theories of translation**

George Steiner (1975) is considered as one of the most pioneer proponents of this theory. He claims that his book “After Babel” is the first systematic investigation of the theory and practice of the translation since the eighteenth century. He views the act of translation as a psychological and intellectual activity for the translator. He introduces his approach and defines it as “the investigation of what it means to understand oral speech or written text, and attempt to diagnose the process in terms of a general model of meaning”. Steiner divided his hermeneutic motion as follows:

First: incorporation or appropriate use.

Second: restitution or fidelity.

Third: trust or faith

Consequently, he focuses on the act of translation in the context of culture, time and human communication across barriers.

George Steiner (1975), the most prominent proponent of these theories, claims that his book *After Babel* is the “first systematic investigation of the theory and practice of translation since the eighteenth century. He primarily emphasizes the psychological and intellectual functioning of the mind of the translator. He elucidates that meaning and understanding underlies the translation process, averring that a theory of translation is essentially a theory of semantic transfer from SL into TL. He defines his hermeneutic approach as “the investigation of what it means to understand a piece of oral speech or

written text, and the attempt to diagnose the process in terms of a general model of meaning”.

Steiner (1975) looks upon the act of translation in the context of human communication across barriers of language, culture, time and personality, thus subdividing this motion into four stages (or moves). The first move is termed trust or faith, which consists of the translator’s assumption that the source text contains ‘a sense to be extracted and retrieved into and via his own language, although this is generally an unconscious action. The second move is referred to as the aggression, penetration or decipherment, in which the translator “invades, extracts and brings home” the meaning of the original. The third move is termed ‘incorporation, embodiment or appropriative use. Translation can introduce new elements into the target linguistic and cultural system. The fourth and final stage or move is labeled compensation, restitution or fidelity. The translator must or to restore in his language what he has failed to recover from the original text.

### **2.5.3 Linguistic theories of translation**

These are Nida’s (1976) theories which based on a comparison of linguistic structures of source and receptor texts rather than on a comparison of literary genres and stylistic features: These theories developed as a result of the great development in modern linguistic theories, and the tendency to study language scientifically. The findings of these linguistic theories were applied to other related areas such as language teaching and translation. However, little benefit came out of these theories, since they were confined to the study of idealized constructions, with meaning left out of account.

Nida (1969), since translating always involves at least two different languages, it was inevitable that a number of persons studying the issues of translation would focus upon the distinctive features of the source and receptor languages. Important studies of diverse linguistic structures by such persons as Sapir, Bloomfield, Trubetskoy, and Jakobson laid the foundation for a

systematic study of the functions of language. Then the analysis of languages outside of the Semitic and Indo-European families by linguist-anthropologists provided the creative stimulus for seeing interlingual relations in new and creative ways.

Chomsky (1965, 1972) and his colleagues added a dynamic dimension to language structure through the use of transformations. All this led to the publication of a number of books on translating which have focused primary attention on the correspondences in language structures.

#### **2.5.4 Sociolinguistic Theories of Translation**

According to Nida (1964), this emerged out of the dissatisfaction with linguistic theories of translation and the growing interest in communication. Such interest resulted from the work of anthropologists who recognized the role of text recipients in the process of translation.

According to Nida and Taber (1969), it is only a linguistic translation that can be considered 'faithful', because it "is one which only contains elements which can be directly derived from the ST wording, avoiding any kind of explanatory interpolation or cultural adjustment which can be justified on this basis".

Newmark (1981) states, "attempts to produce on its readers an effect as close as possible to that obtained on the original. Semantic translation attempts to render, as closely as the semantic and syntactic structures of the second language allow, the exact contextual meaning of the original. These two approaches can best be illustrated in the following figure. Pertinent to linguistic theories is Newmark's binary classification of translation into semantic and communicative, which somehow resembles Nida's formal and dynamic equivalence. "Communicative translation,"

#### **2.5.4 Equivalence Theory of Translation**

Baker (1992) maintains that equivalence is a central concept in translation theory. Proponents define equivalence as the relationship between ST and TT that allow TT to be considered as a translation of the ST in the first

place. She addresses the complex issue of equivalence by adopting more neutral approach when she argues that the equivalence is a relative notion because it is influenced by a variety of linguistic and cultural factors. She acknowledges the importance of individual words during the translation process, since the translator looks firstly at the word referring to its complex nature and because often a single word can have different meanings in different languages. Consequently parameters such as number, gender and tense should be taken into consideration when translating a word.

Baker (1992) stresses that differences in grammatical structures may significantly change the way the information or message is carried out, as a result the translator may be forced to add or delete information in the TT because of the lack of specific grammatical categories. Some of the major categories that often pose problems for translators are number, voice person, gender, tense and aspect. She also argues that the feature of texture is immense importance for the translators since it facilitates their comprehension and analysis of the SL and helps them to produce a cohesive and coherent text in the TL. She adds that the term implicative is used to refer to what is implied and to literal meaning. In other words, the focus of interest is not on what explicitly said but on what is intended or implied in a given context.

Baker (1992) proposes the following strategies for translation problems of equivalent:

- A)** Using an item of similar meaning and form: it conveys roughly the same meaning as that the SL and consists of equivalent lexical items e.g. (superordinates hyponyms and more neutral/ less expressive words).
- B)** Using an item of similar meaning but dissimilar form: the item consists of different lexical items.
- C)** Translation by paraphrase: expressing the meaning of item in other words because no match can be found in the TL or because of differences in stylistic preference of the SL and the TL e.g. (using a loan word or loan plus explanation).

**D) Translation by omission:** a component of the word might be omitted in the TL because it is compensated somewhere in the text, it cannot be easily paraphrased for stylistic reason.

**E) Translation by illustration.**

This theory is considered as the milestone in linguistic theories. Many theorists believe that translation basically depends on some sort of equivalence due to the classification of the (words sentences, of text level). it must be noticed that equivalence in Arabic and English is unattainable on all levels.

Vinay and Darbelnet (1995) have viewed equivalence oriented translation as a procedure which replicates the same situation as in the original. They also suggest that if this procedure is applied during the translation process, it can maintain the stylistic impact of SL text on the TL text.

Kenny (2001) stipulates that, proponents of equivalence based theories of translation usually define equivalence as the relationship between ST that allows the TT to be considered as a translation of the ST in the first place.

House (1997) maintains that, “the attack against the concept of equivalence in the field of translation studies has slightly dated touch definitions of equivalence based on formal, syntactic and lexical similarities alone have actually been criticized for long time and it has long been recognized that such narrow views of equivalence fail to recognize that two linguistic units in two different languages may be an ambiguous in multiple ways. Formal definitions of equivalence have further been revealed as deficient in that they cannot explain appropriate use in communication. This is why functional, communicative or pragmatic equivalence have been accredited concepts in contrastive linguistics for a long time, focusing as they do on language use than structure.

Pym (2010) makes his contribution to the concept of equivalence by pointing out there is no such thing as perfect equivalence between languages and it is the always assumed equivalence. Particularly for Pym equivalence is a relation “equal value” between ST segment and TT segment and can be

established on any linguistic level from form to function. He goes on to distinguish between natural and directional equivalence. Natural equivalence exists between languages prior to the act of translating and it not affected by directionality. He argues that although there are usually many ways of translating the strategies for directional equivalence are reduced into two opposing poles; one adhering to SL norms and the other to TL norms.

Werner Koller (1979) is considered as one of the most prominent German scholars working in the field of translation studies. He distinguishes five types of equivalence a) Denotative equivalence involving the extra linguistic content of a text. b) Connotative equivalence relating to lexical choices. c) text-normative equivalence relating to text types. d) Pragmatic equivalence.

### **2.5.5 Skopos Theory**

The word Skopos derived from Greek as a term for the purpose of translation. The theory concentrates on the contextual factors such as the culture of the intended readers of the target text and basically on the function of with regard to the culture of those readers.

Baker (2005) noted that, according to Skopos theory, translation is the production of a functionally appropriate target text based on an existing ST and the relationship between target texts is specified according to the Skopos translation.

Vermeer (1989) says that, we can distinguish between three possible kinds of purpose in the field of translation: the general purpose which aimed at by the translator in the translation process the communicative purpose which aimed at by the target text in the target situation and the purpose that aimed at by a particular translation strategy or procedure.

In order to avoid the conceptual confusion Nord (2001) have proposed a basic distinction between intention and function. "Intention" is defined from the point of view of the sender who wants to achieve a certain purpose with the text. Thus the best intentions do not guarantee a perfect result, particularly



in case where the situations of the sender and the receiver differ considerably. This distinction is particularly useful in translation where the sender and the receiver belong to different cultural and situational settings. Because of this separation of sender and the receiver intention and function may be analyzed from two different angles. Vermeer also explains the Skopos rule as following: Each text is produced for a given purpose and it should serve this purpose.

## **2.6 Techniques of Translation**

Factual knowledge is the knowledge of the subject and specific terminology of the text we are translating. Procedural knowledge is the knowledge of methods and techniques to transfer the meaning from one language to another. So translator has to become interested in knowing a little bit more about translation and its nuances.

### **2.6.1 Direct Translation Techniques**

According to St. Jerome, Manchester, (1997) direct translation techniques are used when structural and conceptual elements of the source language can be transposed into the target language. Direct translation techniques include:

#### **A. Borrowing**

Borrowing is taking of words directly from one language into another without translation. Many English words are borrowed into other languages for example software in the field of technology and funk in culture. English also borrows numerous words from other languages; (abbatoire, café, passé and résumé) from French; (hamburger and kindergarten) from German; (bandana, musk and sugar) from Sanskrit.

#### **B. calque**

A calque or loan translation is a phrase borrowed from another language and translated literally word-for-word. It is often used in specialized or internationalized fields such as quality assurance. Some calques can become

widely accepted in the target language such as (standpoint, beer garden and breakfast) and (Casa Blanca from English flyweight and White House). The meaning of other calques can be rather obscure for most people, especially when they relate to specific vocations or subjects such as science and law. An unsuccessful calque can be extremely unnatural, and can cause unwanted humor, often interpreted as indicating the lack of expertise of the translator in the target language.

### **C. Literal translation**

A word-for-word translation can be used in some languages and not others depending on the sentence structure. Sometimes it works and sometimes it does not.

## **2.6.2 Oblique Translation Techniques**

According to St. Jerome, Manchester (1997), oblique Translation

Techniques are used when the structural or conceptual elements of the source language cannot be directly translated without altering meaning or upsetting the grammatical and stylistic elements of the target language. Oblique translation techniques include:

### **A. Transposition**

This is the process where parts of speech change their sequence when they are translated (blue ball becomes boule bleue in French). It is in a sense a shift of word class. Grammatical structures are often different in different languages. And this requires that the translators must know that it is possible to replace a word category in the target language without altering the meaning of the source text.

### **B. Modulation**

Modulation consists of using a phrase that is different in the source and target languages to convey the same idea. It changes the semantics and shi

fits the point of view of the source language. Through modulation, the translator generates a change in the point of view of the message without altering meaning and without generating a sense of awkwardness in the reader of the target text. It is often used within the same language.

### **C. Reformulation or Equivalence**

Reformulation is to express something in a completely different way, for example when translating idioms or advertising slogans. The process is creative, but not always easy.

### **D. Adaptation**

Adaptation occurs when something specific to one language culture is expressed in a totally different way that is familiar or appropriate to another language culture. It is a shift in cultural environment. It involves changing the cultural reference when a situation in the source culture does not exist in the target culture (for example France has Belgian jokes and England has Irish jokes).

### **E. Compensation**

In general terms compensation can be used when something cannot be translated, and the meaning that is lost is expressed somewhere else in the translated text. Peter Fawcett defines it as: "making good in one part of the text something that could not be translated in another".

## **2.7 Models of Translation**

In this research, models will be classified according to aspects that emphasized most. Some models may concentrate on traditional grammar and formal linguistics, and others may focus on the cultural aspects of translation.

Casagrande (1954), notes that translation models may be classified according to the translators' aim to maintain his translation since "the difference in purpose and materials may affect both the character of the end product and the process of translating".

Perhaps the discussion of the various models of translation may help and support finding an appropriate and suitable model for evaluating the standard of translation in term of quality. The researcher concentrated on specifically on Julianne House Model considering it as a yardstick for the suggested model in the assessment of quality in the translation. Moreover, the researcher reviews the related models that serve the aims of this thesis not claiming that all the aspects have been covered, but attempted to create holistic and a systemic sequence of logical facts and realities in the field of translation studies.

### **2.7.1 The Grammatical Model**

This model basically based on the notion of replacement. As Chau (1984) noted that, language is considered as an “objective code with demonstrable structure and translating is viewed a purely linguistic operation. He argues that the distinctive feature if this operation is its identification of translating with grammatical transfer, so that comparative grammar apparently becomes only the means of the TT.

Translation according to this approach is the transfer of the SL grammar structure with little respect to the use of other aspects of language.

### **2. 7.2 The Christiane Nord’s Model**

This model is considered as a holistic one as it not restricted to any specific text type it does not contain any reference to specific characteristics of source or target language, it is independent on translator’s level of competence and it valid for both directions

Nord (1991) model of text analysis in translation consist extra textual and intra textual factors which should be analyzed both in a source and target text and consequently compared. She considers functionality “the most important criteria for translation” She also states that the deciding factor here is

conversely a function or skopos of TT which comply with the initiators needs.

Her model is divided into the following steps:

A) TT skopos analysis.

B) Source text analysis:

- Determining whether the source text is compatible with the requirements for the prospective target text.
- Detailed analysis focus on the elements of particular import for TT production.

C) Final structure of the target text.

Nord (1977) says that “if the translator succeeded in producing a functional text conforming to initiators’ needs the text will be congruent with TT skopos.

### **2.7.3 Jean Darbelnet’s Model**

Jean Darbelnet (1977) identifies nine parameters for any translation assessment. The list of the parameters as follows:

A) To illustrate the overlap.

B) Accuracy of individual translation units (error analysis).

C) Accuracy of translation as a whole (text function).

D) Idiomatic (lexis).

E) Correctness of target language (error analysis, medium).

F) Tone (intonation, sender).

G) Cultural differences (recipient, responsibility).

H) Literary and other artistic allusions (not particularly relevant for technical text).

### **2.7.4 Christopher Waddington’s Model**

Christopher Waddington (2001) explores TQA. Different methods of evaluating translation in which he compares four various methods used at different universities around the world. These methods are qualitative error

analysis attempting to provide an objective evaluation of students' translations. But one of the methods takes into account the negative effect of error on the overall quality of translation.

### **2. 7.5 Jamal Al-Qinai's Model**

Jamal Al-Qinai's (200) endeavors to develop an empirical model for TQA based on objective parameters of textual typology, formal correspondence thematic coherence, reference cohesion pragmatic equivalence and lexicasyntactic properties, so this model is similar to Nord's one. Al-Qinai's model formed a list of concrete parameters to test both the source and the target language accordingly they relatively match each other.

### **2. 7.6 The Cultural Model**

This approach is based on the theory of language which defines meaning in terms of its cultural context. Due to this point of view language is considered as culture, translation describing and explaining world views of one nation to another.

Casgrade (1954) states that, the attitude and values, the experience and traditions of people become involved in the freight of meaning carried by language; in this effect the translator does not translate language but translate cultures. Moreover Casgrade says that in spite of various difficulties standing in the way of translation, the fact remains that information is effectively communicated across language barriers- intentions of speakers expressed in one language and are comprehended and appreciated. If there is a loss of information in this process of switching codes, it must be remembered that much information is also lost in messages transmitted between members of the same speech community, particularly if they belong to sub-cultures of status group.

## **2. 7.7 Julianne House Model**

House (1977) introduces some functional concept in her book translation quality assessment and discusses the concept of equivalence which captures a double binding relationship both to its source and to the communicative conditions of the receiving lingua culture. The author states that “equivalence is related to the preservation of meaning across two different languages and then deals with the semantic pragmatic and textual aspects of meaning particularly important for translation”. She defines translation as “the replacement of a text in the source language by a semantically or pragmatically equivalent text in the target language”. The author also differentiates functions of language versus functions of texts. She reviews different proposals for the notion of function of language (Malinowski: 1923), (Ogden and Richards: 1946), (Karl Buhler 1956), (Roman Jakobson: 1960), (Dell Hymes: 1968), (Karl Popper: 1972), (Hallyday: 1973).

Regarding her Model translation quality assessment, House begins by stating that the function of a text is the application or use which the text has in the particular context of situation. Now the situation itself can be divided into manageable parts or use (situational dimensions). She underlies the importance of meaning in translating and distinguishes between three aspects of meaning: the semantic, the pragmatic and the textual. The author follows Crystal and Davy (1961) for analyzing the parts of a situation:

- A.** Individuality: Dialect , Time
- B.** Discourse
- C.** ( Simple / Complex ) Medium (Speech, Writing )
- D.** ( Simple / Complex )Participation ( Monolog , Dialog)
- E.** Province: Status, Modality , Singularity

The author adapted Crystal and Davys model collapsing model by collapsing the three sections A, B, and C into two sections: Dimensions of language user and Dimensions of language use.

**A. Dimensions of language user**

1. Geographical
2. Social class
3. Time

**B. Dimensions of language use.**

1. Medium : Simple / Complex
2. Participation : Simple / Complex
3. Social Role Relationship
4. Social Attitude
5. Province

House then explains the modifications she has made to the original dimensions of situation proposed by Crystal and Davy. she defines the basic criterion of functional match for translation equivalence “ a translation text should not only match its source text in function but employ equivalent situational dimensional means to achieve that function i.e., for a translation of optimal quality it is desirable to have match between source and translation text along these dimensions which are found in the course of the analysis to contribute in a particular way to each of the two functional components ideational and interpersonal of the texts function”.

House describes the method of operation “outlining the method of analyzing and compar5ing text by indicating how the various situational dimensions of the model are realized syntactically, lexically, and textually drawing eclectically on a number of concepts deemed useful for the establishment of linguistic correlates to the situational dimension.



## 2. 7. 8 Texts Typological Model

This model incorporates concepts and makes use of insights from other areas such as discourse analysis, pragmatics, semiotics and contrastive text logy.

Chau (1984) does not consider text typology as a separate model, but rather as a feature of the interpretative model. The distinctive feature of text typological model is its view of a text as an actual representation of a certain text type. The translator should be introduced to a number of basic notions such as structure, texture and context.

According to Halliday and Hasan (1976:2) texture is the way various elements of a discourse hang together to form bigger chunks of language. Structure refers to how a text is organized.

In general terms, we can define text type as any set of texts, which share common characteristics in terms of lexis, grammar, structure and function.

Neubert (1968) classified text types on the basis of their transtability to four categories as follow:

- A. Exclusively SL- oriented texts.
- B. Primarily SL-oriented texts.
- C. SL –and- TL oriented texts.
- D. Primarily or exclusively TL-oriented texts.

Reiss (1976) distinguishes three text types:

1. Informative: A text involved in the communication of content e.g. (scientific reports or news reports).
2. Expressive: A text the aim of which is the communication artistically organized content.
3. Operative: A text the aim of which is the communication of content with a persuasive character.

Werlich (1967) develops a more elaborate classification, distinguishing five types of texts:

- A. Exposition:** Is the type of textual communication which the encoder chooses for presenting either constituent elements which can be

synthesized into a composite concept or those constituent elements into which concepts or mental constructs of phenomena can be analyzed.

- B. Narration:** Is the type of textual communication in which the encoder more or less selectively deals with factual and or conceptual phenomena in time.
- C. Description:** Is the type of textual communication in which the encoder more or less selectively deals with factual phenomena in space.
- D. Argumentation:** Is the type of textual communication in which the encoder proposes relations between propositions in explicit or implicit or implicit opposition to alternative proposition.
- E. Instruction:** Is the type of textual communication in which the encoder tells himself (in sender-directed instructions) or others (in receiver-directed instructions) what to do. He uses linguistic communication in order to plan the future behavior of himself or others.

Hatim (1984) has also drawn on Werlich's text type classification presenting a text typology along similar lines. Exposition text types accordingly are reduced to three major types:

1. **Expository texts:**
  - a. Descriptive: is used to describe objects and relations in space.
  - b. Narrative: is used to narrate events.
  - c. Conceptual: is used analyze and synthesize concepts.
2. **Argumentation text:** are used to evaluate events, entities or concepts with the aim of making a case or putting forward a point of view. it can be subdivided into:
  - A. Overt argumentation** a letter to the editor could be mentioned as an example.
  - B. Covert argumentation:** an example of this can be the implicit argument in an editorial.
  - C. Instructional text :**

Their aim is to planning and directing future behavior of the addressees.

Test typological model may be an appropriate approach to translators. Due to its eclectic nature in incorporating insights from other models and as results of its ability to provide systematic guidelines about the process of translating, it could be considered as the most effective promising model.

## **2.8 Assessment of Models**

From the above discussion of the models of translation one can conclude that none of these models is adequate to be adopted on its own as model of translating. They are all limited to some specific area of assessment in translation and that reflect clearly the various perspectives of translation scholars towards this issue. But a little bit improvement is noticed through the development of these models especially those who are tackling and assessing both source and target language.

Williams (2004) mentions ten reasons for the current chaos in translation quality assessment:

- A.** Many models are designed with specific types of texts in mind, so the model may not apply to other types of text.
- B.** There is disagreement over whether or not to include in the model factors that are extraneous to the quality of the translation such as deadlines, difficulty of the source text, end use and competence of evaluators.
- C.** The notion of quality of the translation that the service providers have may not match the needs of the end user. The example provided by Williams is using standard French to translate a text for technicians with Canadian Armed Forces.
- D.** There is no uniformity in the assessment of language errors. For example, some consider types, spelling and punctuation to be serious because these are the errors that are usually detected by the reader, while other evaluators may think that these are trivial errors.
- E.** There is disagreement over the level of accuracy required. While some can accept minor shifts of meaning as long as the core message is conveyed, others insist on total fidelity.

**F.** Translation quality assessment that is based on error detection requires considerable human resources. Therefore, it is sometimes performed through “sampling” which refers to the analysis of samples of translation rather than whole texts. This may result in overlooking serious mistakes that are not in the samples.

Translation quality assessment is often based on quantification of errors. Therefore, translation services providers develop assessment grids, which have several quality levels depending on the number of errors detected. The problem with these grids is that they do not provide many levels of errors seriousness. As a result, two translations may be allotted the same grade, though one is better because its errors are slightly less serious.

**G.** Even when the seriousness of errors is finely graded, the same error will have different seriousness ratings in two different types of text.

**H.** Translation assessment models usually determine parameters against which the quality of the translation is to be assessed. Assuming that a fair assessment of each parameter is made, how can we reach an overall quality rating for the translation?

**I.** The design of the translation quality assessment scheme will vary depending on the purpose of the scheme. For example, in training institution, the design of the scheme will differ according to whether the purpose is formative evolution (to provide feedback in support of the learning process) or summative evaluation (To provide evidence of translation competence so that the student passes a course or graduate).

The final stage in the process of translating is testing. It includes accuracy of rendering, readability, stylistic equivalence, etc. But in Nida’s view, it is dynamic equivalence rather than verbal correspondence which should be the focus of attention. The length of the translation compared to the original is also important. According to Nida (1969), there is a tendency for all good translations to be somewhat longer than the original. Cultural and

linguistic redundancies are ascribed by Nida to the desire of the translators to include all information stated in the original communication.

Nida (1969) applied certain methods to test ease of comprehension, predictability and readability. One such method is the cloze technique where the degree of predictability, i.e. to guess the right word in the appropriate context, and readability of text are measured, a concept derived from information theory.

Nida also suggested other practical tests such as: reaction to alternatives, explaining the contents, reading the text aloud, and the publication of sample material, all of which proved to be very helpful and easy to apply.

Nida, concludes that the ultimate criterion in distinguishing good translations from bad translations is dynamic equivalence. In translations which use the Dynamic Equivalence Method, on the hand, the form is structured to preserve the same meaning by deploying different syntax and lexicon. In bad translations which use formal correspondence, on the other hand, the form is preserved by sticking to the same word classes and word order while the meaning is lost or distorted. Bad translations also result from using techniques like paraphrase by addition, or skewing of the message.

## **2.9 Methods of Translation and Text Types**

Translation methods are highly important for the translator and the evaluator of translation. These methods determine for the translator the exact process that he would follow in his translation depending on the type of the translated text. On the other hand the evaluation of translated text would be easy due to the followed method in the final product of the translation.

### **2.9.1 Text Analysis Method**

Frey and Krep (1999) pointed out that, textual analysis is the method of communication. The purpose of textual analysis is to describe the content, structure and functions of the message contained in texts. they further states that, the important considerations in textual analysis include selecting the

types of texts to be studied acquiring appropriate texts and determining which particular approach to employ in analyzing them. The four major approaches of textual analysis are rhetorical criticism, content analysis, and interaction analysis and performance studies.

According to Snell Hornby (1988) there are two different model of text analysis “from lower linguistic levels to higher linguistic levels” and “from higher linguistic levels lower linguistic levels” the former refers to the analysis of the lexical level of the text. In the first model, the analysis is carried out from lower linguistic level to higher ones up to the highest level of all that is the textual level. In contrast in the second model the text is conceived as a contextualization semantic unit and the analysis is carried out from the higher linguistic levels down to the lowest lexical level.

Hatim and Manso (1997) refer it subsequently to “translator abilities” such as factors or abilities which refer to the processing skills that should be developed when analyzing the source text recognizing inter text (genre, discourse and text), locating situation (register) inferring intentionality organizing texture (lexical choice syntactic arrangement cohesion) an structure and judging informality (dynamic syntactic) in terms of the estimated impact on source text readership.

### **2.9.2 Sense for Sense Method**

This is the oldest norm of translation it fundamentally means translating the meaning of each sentence before moving on to the text and stands in normative opposition to word for word translation (also known as literal translation) which means translating the meaning of each lexical item in sequence.

Nida’s (1969) term dynamic and formal equivalence have also been taken to essentially the same thing as sense for sense and word for word translation and Nida did often seem to use them this way: but his original definition of equivalence was rhetorical. The idea was that the translator should translate so

that the effect of translation on the target reader is roughly the same as the effect of the source text once was the effect on the source reader.

Laurence Venutis (1998), concept of domestication or “fluency” is intended to capture something like the ancient notion of sense for sense translation: like Nida’s definition of dynamic and formal equivalence however, Venutis distinction is fundamentally rhetorical in nature focused on structure of syntax (segmentation) but on the relationship between translation and the target readership.

### **2.9.3 Faithful Translation Method**

In faithful translation, translators are faithful not in rendering word o grammatical structures, but rendering the intended meaning. As Newmark (1988) states that, “A faithful translation attempts to reduce the precise contextual meaning of the original within the constraints of the TL grammatical structure”. It is thus faithful in rendering the ST author’s intentions. However, for some purposes these types are not as important as the semantic and communicative translation process which has provoked more suggested controversy and have a number of similarities to approaches suggested by other scholar.

### **2.9.4 Stylistic Accommodation Method**

Aiwei Shi (2003) noted that, Style means all kinds of things. It is defined as “way of writing or performing” the way in which something is written or performed as distinct from the content of the writing or performance. Accommodation in translation emerges in perspectives such as cultural accommodation, collocation accommodation, ideological accommodation and aesthetic accommodation. Style comes only second in priority, it certainly stands very high in importance. It is only natural that good form conveys the content in more sufficient and adequate way. In translation discussion faithfulness in content has always been emphasized and treated seriously, but faithfulness in style seems to pose more difficulties. In literature, style is the novelist’s choice of words and phrases, and how the novelist arranges these

words and phrases in sentences and paragraphs. Style allows the author to shape how the reader experiences the work. For example, one writer may use simple words and straightforward sentences, while another may use difficult vocabulary and elaborate sentence structures. Even if the themes of both works are similar, the differences in the authors' styles make the experiences of reading the two works distinct. Without extensive reading the capture of the so-called style is really a tough challenge.

#### **2.9.4 Literal Translation Method**

Wills (1982) states that, "in the literal translation method, the stylistic structures of the SL text are preserved while the semantic equivalent is preserved in the TL. Furthermore Newmark believes that, literal translation constitutes the basic translation procedures in both semantic and communicative translation. The translation process starts from this point to convey the semantic content of SL material.

Munday (2009) literal translation can be described as a "the close adherence to the surface structures of the ST message both in terms of semantics and syntax" and is less similar to word-for-word translation. However it maintains flexibility in terms of word order and grammatical structure. In lateral translation, the meaning the words is taken from a dictionary without consideration to the context, but the grammatical structure is respected.

Consequently literal translation often involves grammatical transposition e.g (the replacement of part of speech in the ST by different ones in the TT). Thus literal translation shall provide fluent and accurate translation that is easily comprehended by the readers of the target language.

#### **2.9.5. Free Translation Method**

Linda (2011) noted that, free translation is a method to deliver the intended meaning of the source text without paying attention to details such as syntax, style and so on of the original text. Free translation is suitable in case the translation is difficult to be understood or accepted by the readers or the



translation seems not as attractive or powerful as the original text by approach of literal translation.

Mitra (2015) stated that, the purpose of free translation is to keep the source language function, even if general meaning suffers from it. Content must remain unchanged. Certain changes to categories like social and cultural environment, genre or communicative dimension (tonality, dialect) are okay. These changes vary according to the target audience e.g. (if the text is aimed at children), new designation (stage adaptation), change of context or personal choice. This method is the easiest to apply but it doesn't apply for any type of text; before approaching translation "freely", we must take into account the listed categories subject to change.

The crucial problems of translation are often stated in terms of a conflict between formal correspondence and functional equivalence. On the basis of this dichotomy, Nida, and Newmark (1964) subscribe to similar versions of two basic methods of translation: Formal Equivalence VS functional equivalence and communicative translation VS semantic translation. De waard and Nida (1986) substitute the term, {Functional Equivalence} for dynamic equivalence of (These are SL and TL by new mark to author-centered, expressive texts whiles the latter to truth-centered, informative texts and reader-centered, vocative texts. Below is brief review of the text types and their related translation methods.

**Expressive texts:** are those in which the principle language function is expressive, i.e. expresses feeling irrespective of any response. The style is author-centered in being marked by dialectal components which include UN conventional syntax; strange words (archaism, dialect and odd technical terms). This text type involves such materials as (a) serious imaginative literature, namely, lyrical poetry, short stories, novels and plays; (b) authoritative statements ( those having the personal imprint of their authors). Including political speeches and documents, legal documents, scientific

philosophical and academic works written by acknowledge authorities and (c) autobiography, essays and personal correspondence.

Zaky (2001), Style and tone are of great importance when we translate literary texts rather than scientific ones if the aim of the source language text is only to convey a piece of information or some instructions to the reader or audience. The referential meaning of words become quite significant and the effect of style and / or tone diminishes. On the other hand, when the translator deals with SL text that does not only aim at conveying a message but aspires to produce a certain impact on the read/audience through the use of a particular style, the translation of such a stylistic effect is then an essential part of every act of translating not just an ornament that would bestows beauty upon the translated version, but as an indispensable aspect of it, without which the translation ceases to be a translation in the full sense of the word.

**Informative texts:** are those in which the major language function is to convey information about facts, ideas and theories. The style is normally modern-non-regional, on-class and non-dialectal.

The standard format is a text book, an article in newspaper or a periodical, a technical report, a scientific paper a thesis, minutes or agendas of a meeting.

**Vocative texts:** are those in which the main language function is to call the readership to react (i.e. act, think or feel) in the way intended by the text. The style is characterized by grammatical or asymmetrical relationship between the writer and he readership, and by language immediately comprehensible the readership. A vocative text type includes notices, instructions, publicity, propaganda, persuasive writing and possibly popular fiction.

## **2.10 Procedure and Strategies of Translation**

Newmark (1988), mentions the difference between translation methods and translation procedures. He writes that, "While translation methods relate

to whole texts translation procedures are used for sentences and the smaller units of language". Wrong translation procedure may result in awkward translation even the product does not have any sense at all. Some procedures are suitable to apply at certain sentence, but not all are fit for any sentence. It is important to investigate what translation procedures applied by the students so that their characteristic can be identified as a tool to design more effective translation teaching-learning process.

There is nothing in the world of taxonomy and language void of dichotomy, binary opposition seeking certain dimensions and ultimately vary functions and effects. Translation is similar case, and generally number translation procedures are practice. Each discipline has its own peculiar linguistic feature, thus it needs an appropriate approach / procedure for translating its text.

Newmark (1988b) proposes the following different translation procedures:

- a) Transference: it is the process of transferring an SL word to a TL text.
- b) Naturalization: it adapts the SL word first to the normal pronunciation, then to the normal morphology of the TL.
- c) Cultural equivalent: it means replacing a cultural word in the SL with a TL one.
- d) Functional equivalent: it requires the use of a culture-neutral word.
- e) Descriptive equivalent: in this procedure the meaning of the CBT is explained in several words.
- f) Descriptive equivalent: in this procedure the meaning of the CBT explained in several words.
- g) Synonymy: it is a "near TL equivalent." Here economy trumps accuracy.
- h) Through-translation: it is the literal translation of common collocations, names of organizations and components of compounds. It can also be called: calque or loan translation.

- i) Shifts or transpositions: it involves a change in the grammar from SL to TL, for instance, (i) change from singular to plural, (ii) the change required when a specific SL structure does not exist in the TL, (iii) change of an SL verb to a TL word, change of an SL noun group to a TL noun and so forth
- j) Recognized translation: it occurs when the translator "normally uses the official or the generally accepted translation of any institutional term."

Jean Paul (2003) and others have given different kind of translation procedures, but each procedure appears with its own complexity. Each of the procedure can be used on its own, but many involve one or more of the other methods. Generally, translation has a free choice for translation namely direct/literal translation and oblique/indirect translation. It is important to note pointed out by Nabovok (2003) in his essay 'problem of translation' that, the term "free translation" smaks of knavoy (flavor of dishonest). It is when the translation sets out to render the 'spirit' not the textual sense that the translator begins to defame the author. The clause 'smaks of knavery ant turanny' denotes that free translation is not appreciated and reliable, so it is to be avoided to maintain the axiom of fidelity and faithfulness to the original text.

Nabovok (2003) regards 'a flavor of dishonesty' as trickery and injustice where a translator paraphrases it with subjectivity. Nevertheless, the clumsiest literal translation is more useful than the prettiest paraphrasing.

In some translation tasks, it is possible to replace the SL message elements by the TL elements, but translation of medical text may come across certain linguistic problems in the TL. In the light of Nabovok's findings, direct/literal procedures of translation include (literal, borrowing and calque). And he noted that in direct procedures all of the translation categories may or may not be amalgamated.

## **2.11 Problems of Translation**

Roxana (2016) through translation, people are introduced to different languages and ways of thought. It is important to understand the relation between language and culture in order to train translators and interpreters.

Delisle (1988), indicates "What truly distinguishes translation is that it takes place in the context of the relations between two cultures, two worlds of thought and perception"

Newmark (1981) argues that there is a cultural value in translation. Language is partly the reflection of a culture. Translators like linguists tend to define culture as the sum of people's customs and ways of thinking.

According to Dr. Miremedi (1991) translation problems are divided into two main categories: lexical problems and syntactic problems.

### **A. Lexical problems**

In the interpretation of lexical problems, Miremedi states that although words are entities that refer to objects or concepts, a word in one language may not be substituted with a word in another language when referring to the same concepts or objects.

He divides lexical problems into five subcategories:

#### a) Straight/ denotative meaning

This kind of meaning refers to those words of the source text that can be Matched with those of the target text "without missing images" (e.g. mother, father, etc).

b) Lexical meaning: Lexical meaning refers to words or phrases which seem to be equivalent, although in that situation this may not be the case; the translator must be aware of the intention beyond the words in order not to misrepresent the author's message.

c) Metaphorical expression: This subcategory refers to the problematic issues of translating idioms and similar expressions. Broeik (1981) quoted by Dr. Miremedi (1991) offers the following suggestions for translating idiomatic expressions:

1. Distinguishing between ordinary expressions and metaphors
2. Having access to the resources of translating a single metaphor
3. Being aware of different contexts and their constraints on using metaphors

4. Correctly realizing the constraints on the translation, and rendering the Message.

d) Semantic voids: This subcategory includes those words and/or expressions that represent concepts that cannot be found in other special communities. The close equivalents may be found, although the exact equivalent cannot.

According to Dr. Miremedi (1991), this may happen in two cases, subjects to extra-linguistic factors such as those words that have referents in a certain speech community but not in others, and subject to intra-linguistic factors such as those concepts that may exist in two language communities but the structure of their use may be completely different, Dagut (1931) believes, as Dr. Miremedi (1991) mentioned, that this case occurs when the systems of lexicalization of shared expressions are different from each other.

## **B. Syntactic problems**

Syntactic problems are the other main category of translation problems.

As Nida (1975) quoted “one can find no two languages that have the exact identical systems of structural organizations (i.e. language structure varies from one language to another)”. These differences include:

a) Word classes: Languages differ from each other in the internal word formation of language classification.

b) Grammatical relations: This difference exists among the languages in the way that a constituent of a sentence functions within that sentence.

c) Word order

d) Style

e) Pragmatic aspects

Considering all these problems, a translator is expected to convey the message of the source text to target readers; however, there is no completely exact translation between any two languages.

Werner (1961), the degree of approximation between two language systems determines the effectiveness of the translation.

Roxana (2016) Translation is important as a source of diffusion of knowledge of every kind. By understanding the development of every aspect of culture in other civilizations, people can also enrich their understanding of their own culture. Knowledge of the target culture is crucial for successful English Arabic translation. Poor comprehension may arise from lack of insight into the target culture. There is a mismatch in cultural norms and beliefs between the Arab and Western cultures. Each different language has its own individuality, which makes it distinctive and peculiar to the people who speak it. Words denote things and put them in a distinct category of thought. As a result, differences between languages are not only related to the linguistic system, but involve differences in the speakers' interpretation and understanding of the world they live in. Languages classify knowledge in various ways for the purposes of speech.

As-Sayyd (1995) Translation problems can be divided into linguistic problems and cultural problems: the linguistic problems include grammatical differences, lexical ambiguity and meaning ambiguity; the cultural problems refer to different situational features. A difficulty in translation work is what found when she conducted a study to compare and assess some problems in translating the fair names of Allah in the Qur'an. She pointed out that some of the major problems of translation are over-translation, under-translation, and untranslatability.

As-Sayyd (1995) added that Culture constitutes another major problem that faces translators. A bad model of translated pieces of literature may give misconceptions about the original. While Zidan (1994) wondered about the possible role of the target culture content as a motivating variable in enhancing or hindering the attainment of linguistic, communicative and, more importantly cultural objectives of EFL (English as a Foreign Language education).

El Zeini (1994) identifies six main problems in translation from Arabic to English and vice versa: these are lexicon, morphology, syntax, textual

differences, rhetorical differences and pragmatic factors. All types of translation involve loss or gain of meaning. Translation also causes skewing of meaning while decoding and encoding ideas. This results from the choice of the nearest equivalent.

Bassnett (1991) Equivalence in translation should not be approached as a search for sameness, but as dialectic between signs and structures within and surrounding the source language and the target language text. As complete equivalence is not possible, there is always the question of loss and gain.

Nida (1969) discusses in detail the difficulties encountered by the translator when faced with the terms or concepts in the Source language that do not exist in the target language.

Catford (1965) distinguishes two types of untranslatability, linguistic and cultural. Linguistic untranslatability occurs when there is no lexical or syntactic substitute in language for the source language item. This is the result of the differences between the source language and the target language.

Catford (1965), Cultural untranslatability is due to the absence in the target culture of a relevant situational feature for the Source language text. Translation is not an isolated endeavor; it is a part of an ongoing process of intercultural transfer: a transfer across linguistic and cultural boundaries. The translator has to present the aspects of social culture that is unfamiliar to the receiving audience. They consist of elements of the material culture like food, dress and tools, factors of social structures like customs and law, features of the natural world like weather, flora and fauna, and social functions like festivals, rituals and ceremonies. Such elements of the source culture have no equivalents in the receptor language. The translator may transfer the source culture item untranslated into the Target language he may transcribe the item in the Target language and provide an explanatory footnote for the readers of the receptor culture.



Nakhallah (2016) noted that, Difficulties and Problems arising from translation process fell into four categories as following:

**A) Cultural difficulties:** Include the proper or improper usage of certain word, phrases based on the culture of a given society as well as specification of the society itself such as the education system, health care system, societal or religious taboos.

**B. Conceptual /Semantic difficulties:** Are those that arise in conveying the meaning of statement in a foreign language.

**C. Idiomatic difficulties:** Correspond to the use of certain phrases, or the means of conveying ideas that are unique to a particular region, country or society.

**D. Grammatical difficulties:** Include difficulties linked for and based on for instance to the grammar of a given language.

There are many other translation problems as they were published on (Translation Day: 20018):

### **1. Structure of the Language**

The structure of sentences in English and other languages may be different. This is considered to be one of the main structural problems in translation. The culture practiced by the speakers of each language may also be vastly different. In many languages, certain terms may be completely absent. This is one of the most common challenges faced by a translator on its daily basis, also one of the main reasons why translation is difficult. For example, “in English the adjective is placed before the noun, but in French the adjective comes after the noun. In Arabic and some other languages, the subject pronoun is part of the verb, and that determines the subject gender and the voice of the sentence”.

## **2. Cultural Differences**

The culture practiced by the speakers of each language may also be vastly different; often, colloquialism is woven into formal language, making the translator's task very difficult indeed. The larger the region where the language is spoken, the more the dialects there are likely to be, and the more colloquial words you are likely to find except in technical documents translations, legal document translations, or translations of medical transcripts. For example, the British are famous for their dry, biting sarcasm, which is their brand of humor. However, this kind of sarcasm may not be appreciated in not just a country speaking a different language, but even another country where they speak English.

## **3. Missing Terms**

Missing terms are very common translation issue. In some languages, certain terms may be completely absent this has also to do with culture, as those objects may not be used by the people, or those actions or activities may not be permitted or simply not performed. This is a potentially difficult situation for the translator, and poses another important structural problem worth of discussion. Let's suppose the term child adoption has no related word in another language, because such a thing just doesn't take place in that area.

## **4. Words with Several Meanings**

There are several words in the English language that have different meanings based on the way they are used in the sentence. Words are sometimes spelled alike and pronounced alike, but have different meanings, like break (a plate) or take a coffee break. Words that have the same spellings but different pronunciations like to lead a conference, or a lead pencil. There are also words that have different spelling but have the same pronunciation, like break and brake, grate and great, and so on. There are hundreds of such words in English,

and also idioms, metaphors, similes and so on. However, those words may be different in other languages.

## **5. Lack of Technical Knowledge**

Regarding technical knowledge, translators are first and foremost, linguists though they do have good knowledge of certain subjects, they are usually not the top experts in the field. In fact it's very rare that you find a say, doctor, who is also an expert linguist. Translators usually specialise in certain niches, and gain subject matter expertise.

## **6. Limited Time**

Limited time is the most common problem that translators face every single day, because most clients need the translated work quickly; they have no time to lose. If it is a straightforward document, then you may be able to finish it within the deadline. But when it is a technical or legal document full of technical terms or if there is a lot of dialect and colloquialism involved, it could take longer. This can be very stressful for you as a translator, when your client is breathing down your back to get the translated documents. But sometimes that may not be enough for some types of specialized translation; some documents may be full of technical jargon, or talk about specific procedures or activities in detail. This can pose a problem for translators.

## **7. Personal Challenges**

Personal Challenges, as opposed to linguistic challenges, are those arises because of the environment around the translator. There are many benefits on being a translator, but sometimes some of those benefits may also bring problems. For example, being a translator involves a very independent working schedule. This means the translator can work anytime he wants, even from home, but he still has deadlines and time requisites. If he does not handle

his working time correctly he might find himself working 24/7. So, a translator may face several other challenges in the line of work.

## **2.12 Translators Competence and Qualifications**

According to Anthony Pym (2011) Translation competence is defined by as “the knowledge, skill and attitude to become competent”. The competence consists of two competent: declarative knowledge (know that) and operational knowledge (know how). The term can be substituted by more specific expression (skill, knowledge and disposition with degrees of expertise operative within all.

Stanfield (1992) says that, competence should be divided into two different skills: accuracy (of transfer ST content into the TT) and expression (quality of translator’s expression.

Etienne Dolet (1509) published a short outlines of transplantation principles as following:

- A.** The translator must fully understand the sense and the meaning of original author, although he is at liberty to clarify obscurities.
- B.** The translator should have a perfect knowledge of both SL and TL.
- C.** The translator should avoid word-for-word rendering.
- D.** The translator should forms of speech in common.
- E.** The translator should chose and order words appropriately to produce the correct tone.

Al-Hasnawi (2010) discriminate six characteristics taken from the London Institute of Linguistics that the scientific translator should have:

- A.** Broad knowledge of subject matter of the text to be translated.
- B.** A well-developed imagination that enables the translator to visualize the equipment or process being described.
- C.** Intelligence, to be able to fill the missing links in the original text.
- D.** A sense of discrimination, to be able to choose the most suitable equivalent term from the literature of the field or from the dictionary.

**E.** The ability to use one's own language with clarity, conciseness and precision.

**F.** Practical experience in translating from the related field.

According to Bthany Thivierge (2002), "the work of scientific translator is to achieve one primary goal and that is to write information in clear, concise and accurate manner". He claimed that there are nice requirements that a scientific translator should observe:

**A.** Work appropriate for intended audience.

**B.** Respect for the choices that that made by the author.

**C.** Respect for the reference.

**D.** Understanding the science.

**E.** Understanding of languages.

**F.** Constructive question.

**G.** Suitable work for publication.

**H.** Familiarity with current practise.

**I.** Timely exchange of work.

Roger T. Bell (2000) lists several competences a professional translator requires: grammatical, sociolinguistic, discourse and strategic competence.

**A.** Grammatical competence requires knowledge of code rules, vocabulary, word formation, pronunciation / spelling and sentence structure.

**B.** Sociolinguistic competence involves the necessary knowledge and ability to produce and understand context, utterances to perceive the real meaning intended by the subject, the status of participants, the purpose of interaction etc.

**C.** Discourse competence involves the ability to combine form and meaning in order to obtain written or oral texts of different genres with a unitary character.

Nord (1991), strategic competence involves mastery of communication strategies, with the purpose to improve communication in translation task".

Discussing the qualifications of potential translator, Nida (1981) expresses his agreement with TT specialists, pointing out “it is extremely difficult to test in advance what a person’s potential as a translator may be despite the various tests available. However, it is possible to predict with great accuracy what a trainee’s future success is likely to be on the basis of a few weeks’ participation in a training program.

Although many writers have discussed TT and the prerequisites of good translators, the proposed terms such as (talent, intelligence and creative imagination) are too vague to form a clear description of how they can be acquired.

There is disagreement over qualifications of the translation teacher. But there a few points which most TT writers agree upon regarding the requirements of the translation teacher; he should be a professional translator.

As Keiser (1978) criticizes quiet number of schools pretending to train interpreters where there is no one conference interpreter among faculty, and where most of teachers have never been at an international conference in addition to their vocational skills.

Wilss (1982) lists five qualifications required from the translation teacher:

- A. A comprehensive transfer competence.
- B. An awareness of SL/TL surface divergences.
- C. An interest in TI problems.
- D. The ability to adapt learning theories to the field of TT.
- E. The ability to develop translational achievement test for controlling the translation learning progress.

### **2.13 Formal Training of Translators**

According to Keith (1989), even if some practicing translators still harbor some skepticism about the usefulness of training programs, very few of them actually express their views formally.

Pilley (1962) was one of the last to do so. Since then most discussion has centered on the question of how to train translators realize that the majority of translators have never followed any translation or interpreting training.

According to Citroen (1966), After all, the majority of the translators active at present have never had a direct schooling for the trade they play, nor have they ever felt a need for it. Some have been educated as linguists, others are persons who have learned languages abroad, and many are gifted people who managed to master the required skills in their own ways. But Citroen goes on to argue in favor of formal training by saying that if we give the matter some thought, there seems little difficulty in choosing between, on the one hand, a training at a qualified school where student translators and interpreters are enabled to acquire, in a few years' time, the exact basic information they need for the satisfactory pursuit of their chosen profession, and on the other hand, the many largely unguided study required by their elders to reach a satisfactory standard of competence with no way to check whether such a standard has actually been achieved.

One important issue, as Chau (1984) points out, is what TT is expected to do. "As many translation educators realize, it is not that students can actually be taught how to translate, but at least they can be guided to understand the principles of good translation"

There are only a few articles published in opposition to formal training of translators. C. Schmitt's (1966), *the self-Taught Translator* is one of these publications. He argues that it is unnecessary for the translator to follow any formal training claim that translation is a skill which cannot be acquired. In other words, either a person has got it or has not. Some of the opponents of formal training take the view, that teaching translation skills is like training somebody how to drive.

Schmitt (1966) said, those writers who object to TT claim that translating is an art which cannot be systematically taught. According to him, the activity of translation requires an innate ability plus experience, which are the major qualifications of the translator. It takes real inborn aptitude to become a good translator.

Nida (1981), agrees with Schmitt saying that ‘translators are born not made’. It goes without saying that translating! Interpreting as a profession has gained enormously from development in the linguistic sciences, and, consequently, has been widely recognized. However, only a few will argue nowadays that inborn qualities are not essential for a professional translator or interpreter. The attitude of most translators and TT writers is that while a great deal of inherent qualities is essential for a translator, translators! Interpreters need a certain degree of training in order to perfect their performance.

## **2.14 Medical Translation**

It is the translation of healthcare, medical product, pharmaceutical and biotechnology materials. Medical translation is a very broad term covering a wide variety of specialist areas and materials everything from patient information to regulatory, marketing and technical documents. This translation type has numerous potential sub-categories medical device translations and clinical trial translations.

### **2.14.1 Definitions and concepts of medical translation**

Medical translation concerns a number of subject areas, including pharmacology, medical rescue system, surgery, obstetrics, pediatrics, psychiatry, internal medicine, oncology, cardiology and other fields of specialty, as well as other disciplines, such as law or administration.

According to Wikipedia (2010), medical translation is the practice of translating various documents training materials, medical bulletins, drug data sheets, etc for health care, medical devices, marketing, or for clinical,



regulatory, and technical documentation. Most countries require that companies and organizations translate literature and labeling for medical devices or pharmaceuticals into their national language. Documents for clinical trials often require translation for local clinicians and patients and regulatory representatives. Regulatory approval submissions typically must be translated. In addition to linguistic skills, medical translation requires specific training and subject matter knowledge because of the highly technical, sensitive, and regulated nature of medical texts.

Henry Fischbach (1962) medical translations may be broadly divided into two main categories, depending on their purpose: information or promotion, although this is not to imply that the two are mutually exclusive. A medical communication may indeed, ideally should inform as it promotes, and, of course, vice versa. But, by and large, a text intended solely for internal information need not be as highly polished stylistically as one prepared for external promotion. The two are chiefly distinguished by the inclusion subtle or otherwise of a sales message.

He also added that Translation enters into the picture whenever the source used: clinical papers, package inserts, direct mail, and all other printed matter; slide projections or motion pictures, broadcast commentaries, recordings and patents language and the target language differ, regardless of the communication medium. A good translation is the rewriting in the foreign language of the ideas contained in the original. Indeed, we might even say that a good translator ought to be as good a writer as the one who wrote the original.

Bernadine Racoma (2017) noted that, medical translation is translating various types of documents, such as training materials for healthcare, medical device or pharmaceutical fields, marketing or clinical, regulatory, and technical documentation. Many doctors engage the services of medical translators for their patient records, prescriptions, medical history and diagnoses that are written in another language. It is not just about working

with doctors, as there are several other areas where it is needed. For example, in labels and literature pertaining to pharmaceuticals and medical devices sold locally to be translated into the language they commonly use. The translation of medical text is very important for clinical trials in order for patients, local clinicians and representatives of regulatory organizations to understand them. Likewise it is usual for regulatory approval submissions to be translated.

Bernadine Racoma (2017) added that, the process for medical translation involves many steps. It normally starts with the extraction of the text from the source or the original document. The text would then be converted into the target language. After the text been translated, an editor would check it to ensure that the translator followed the medical terms and meaning based on the medical terminology approved by client or the industry. For example, medical translation English to Spanish should use the form of Spanish that is officially recognized in the target country. The editor will also check the voice and the style mirrors that of the source document. After the editor checks and approves the translation, it would be put back into its original format, for example, as an e-learning program or web page or Word document.

She also added that, the translation of medical texts considers the various requirements and rules that pertain to the source texts. Medical translation is very specialized and needs more attention, such as subject matter expertise to be able to accurately translate various documents, from labels to leaflets, to medical journals to patient journals, to training materials to patents.

#### **2.14.2 Brief History of Medical Translation**

According to Montgomery (2009), the scientific world is predominantly English speaking and major scientific journals publish papers in English.

Fischbach (1998) stated that, long before English became the lingua franca of science, Latin was the dominant language of medicine as of the 2nd century,

while Greek remained the language of instruction for medical students until the 3rd century.

McMorrow (1998) noted that, Greek and Latin shaped the conventions of scientific (not only medical) writing for over 2000 years. All the great civilizations kept records of medical findings and translation has for a long time supported the dissemination of medical knowledge. As Greek medical advances were imported to Rome, Physicians translated medical writings to other languages as well, which included Syriac, Arabic, Farsi, and Hebrew.

McMorrow (1998), in the 7th century Baghdad had one of the most prominent medical schools, which was also a school of translators. The works of Persian and Arab physicians were translated into Latin at Toledo School of Translators. Despite the significant role in translation, the Arabic influence on the language of medicine is relatively small and mainly concerns botanic names or names of herbs. The 13th century marked the beginning of the second wave of translations of Greek manuscripts, which were now rendered directly and more accurately.

He added that, “Latin had a life of about 800 years in academic medicine”. In the Middle Ages both Latin and Middle English were acceptable in medical communication: Latin in academic instruction and Middle English as the vernacular language. Changes in medical knowledge and language have overtaken changes in political and social context during the past 200 years. A major change in medical terminology is well under way, one that will not wipe out the classical heritage, but enfold it with many layers of heterogeneous material.

McMorrow (1998), also added that, the modern language of medicine employs modern derivatives of Greek and Latin words “with no concern for etymological purity” The corpus of Greek and Latin terminology is still the base of the contemporary medical language, which also uses new eponyms, acronyms and trade names.

Jack Segura (1998) observes that, “Arab armies brought with them a treasure trove of medical and scientific knowledge from Ancient India, Persia, Egypt, Greece and Syria.” Arabs acted as intermediaries in disseminating medical knowledge, including the Greek medical heritage.

Ofer Tiroth (2019), Translations of ancient texts can provide fascinating insights into years gone by, not just as a result of the translations themselves, but also thanks to when and where they date back to. A recent discovery of two pages of calfskin vellum provide a wonderful example of this, as the medical translation proves a direct connection between Medieval Ireland and the Islamic world.

### **2.14.3 Medical language**

Henrik R Wulff (2004), there is no recognized discipline called medical linguistics, but perhaps there ought to be one. The language of medicine offers intriguing challenges both to medical historians and to linguists. Classical scholars have analyzed the contents and language of the most ancient medical records in great detail, but the later development of medical terminology has received much less attention.

Henrik R Wulff (2004) added that, the oldest written sources of western medicine are the Hippocratic writings from the 5th and 4th centuries bc, which cover all aspects of medicine at that time and contain numerous medical terms. This was the beginning of the Greek era of the language of medicine, which lasted even after the Roman conquest, since the Romans, who had no similar medical tradition, imported Greek medicine. But during the Middle Ages a third language gained importance as many of the classical Greek medical texts were translated into Arabic. Scholars from the Arab world also made original contributions to medical literature, and a few Arabic terms e.g. (*nucha*) found their way into western medicine. However, at the time of the renaissance, when Greek was no longer widely understood, both Greek and Arabic works were translated into Latin, and the era of medical Latin began. Then followed the era of the national medical languages, such as medical English (i.e.

ordinary English with the admixture of medical terms), medical French, medical German, medical Italian and many others. A few of these, especially French, German and English, replaced Latin as vehicles for international communication, but most of the others were only used nationally. The national medical languages had much in common since most of the medical terms were derived from medical Latin, but there were systematic differences that still persist. In Germanic languages such as the German, Dutch and Scandinavian ones, anatomical terms and disease names are often imported directly with their correct Latin endings, e.g. (*nervus ventriculi*), whereas the same terms in Romance languages are usually naturalized according to the norms of each particular language.

He also added that, today, all the most influential medical journals are written in English, and English has become the language of choice at international conferences. We have entered the era of medical English, which resembles the era of medical Latin in that; once again, medical doctors have chosen a single language for international communication. Whereas in former times new medical terms were derived from classical Greek or Latin roots, now they are often, partly or wholly, composed of words borrowed from ordinary English.

Gotti (2008), genres used in expert-expert communication such as discharge summaries, case studies and case notes, imaging reports and research papers use numerous specialized terms whose semantic value is taken for granted. Expert-lay communication covers package leaflets, informed consent documents, patient factsheets, which use (or should use) less complex terminology).

Askehave & Zethsen (2000), the main characteristics of specialized medical texts include terminology and syntactic features, such as nominalization, heavy pre and post modification, long sentences, use of passives and third person.

#### **2.14.4 Medical Terminology**

Caduceus (2019) stated that, Medical terminology is the language used to describe components and processes of the human body, medical procedures, diseases, disorders, and pharmacology. Simply put, it is the vocabulary that medical professionals use to describe the body, what it does, and the treatments they prescribe. The words within this system usually have prefixes, root words, combining vowels, and suffixes. These elements are combined to create specific terms that help describe various conditions of the human body. The term “pericarditis,” for example, is used to describe inflammation in the outer layer of the heart. We can break the term down into three component parts: peri-card-itis and each part of the word tells us something about the condition. The prefix “peri” means “surrounding,” the root word “card” means “heart,” and finally “it is” means inflammation.

Caduceus (2019) added that, the history of medical terms goes all the way back to the ancient Greeks, specifically Hippocrates. According to the National Institutes of Health, the oldest recorded medical writings are the Hippocratic records from the 4th and 5th centuries BC. Greek and Latin words are still used in modern medical terminology, building on this tradition. In fact, it's thought that the Greek physician Galen's writings, which have influenced the world of medicine for almost 1,500 years, are the main reason so many Greek words persist in medical terminology today. Other languages made their way into the lexicon as well: During the Renaissance period, the first anatomists used Latin words to describe the structures of the human body as they were discovered. Arabic was added during the middle ages, as scholars of the language held roles as medical instructors at the time. From 1650 to 1850, Latin was also considered the language of the educated, contributing to its use in medical texts and instruction. Much of modern medical terminology was formulated during this period.

### **2.14.5 Problems of Medical Translation**

According to Albion (2018) medical translation can be very challenging. It requires more advanced skills due to the need to be highly precise, clear and accurate. A translator cannot afford to mix up terms because it could, quite literally, be a matter of life and death. Medical terminology is especially different with varying spelling in the different language variants. It also includes a lot of abbreviations which can differ from language to language. In addition, medical translators can also face considerable challenges in understanding medical procedures and knowhow. The following are the procedures which translators should put on consider.

#### **A. Localization**

Medical technology is evolving around the globe. Many medicines and equipment are manufactured in different countries and then exported. Thus, the relevant documentation needs to be translated into a range of target languages (often including English) alongside the language of the manufacturer's home country. The exponential rise in the number of medical concepts and the quantity of research has made medical translation and localization all that more complex and demanding.

#### **B. Knowledge and language**

In medical translation, a linguist needs to be equally an expert in medical knowhow and the target language. Translating medical documents and texts is highly complex due to the many special terms which are difficult and cannot necessarily be translated directly into the different languages. This field is so unique that even bilingual doctors and nurses are not advised to translate medical texts. Only specialist professionals can perform this type of translation in such a way as to avoid mistakes, prejudice and common knowledge that can cloud such a translation.

## **C. Intensive training**

Medical translators undergo intensive training that is both time consuming and expensive. A regular translator cannot do medical translation even if they are fluent in the language and know the common phrases and idioms. There have been several reported cases of deaths due to lack of an appropriate medical interpreter at a number of hospitals around the world. As a result, only a linguist who has undergone intensive training in medical translation should be entrusted with the task.

### **A. Target audience**

One of the greatest challenges facing a medical translator is to translate the texts and documents in a way that meets the needs of two distinct target audiences, patients or laymen and doctors and other medical professionals. Depending on the target audience a translator will use different terms. For example, the term 'Varicella' means Chicken Pox. Depending on who is he/she translating for, the medical translator would either use the term Varicella for doctors and Chicken Pox for the lay audience.

Diego Alfaro (2005) noted that Medicine is a field of knowledge in accelerated scientific and technological development that each year incorporates a large number of new terms into the medical lexicon. Because of the need to quickly update their knowledge, health professionals learn directly in the original language of the publication and stick to it in daily usage.

He added that, it is only much later on that the first attempts to translate these terms start to timidly appear, and this leads to further problems: for a lot of words, it is not easy to find suitable corresponding terms in the target language, thus making translation difficult. This process is often carried out by medical students who have no translating experience and little knowledge of the source language, or especially of the target language. They can also be



carried out by professional translators who are not familiar with the associated vocabulary or medical practice, resulting in seriously distorted meanings.

Howard Waitzkin, Theron Britt (1989), in the discourse of medical encounters, social problems arises frequently. Such problems typically derive from work and economic insecurity, family life and gender roles, aging, and conditions that foster substance use or other self-destructive behavior. The structure of medical discourse tends to marginalize the social issues that generate personal troubles in everyday life. Long-range strategies to alter medical discourse aim toward basic modifications of power and finance in the larger society of which medicine is a part; such strategies seek to change the contextual issues that create personal troubles on the individual level.

Denise Recalde (2017) noted that, what set medical translation apart from other technical translations in terms of difficulty is its multiple registers. In the field, many body parts and diseases have one name in a more elevated medical register and another in a lower colloquial register. Examples include "thorax" versus "chest," and "pertussis" versus "whooping cough". Medical translation is considered especially difficult because the translator needs to know how the body works, how a disease evolves, etc. One could argue that a translator working on an electrical engineering text on power transmission systems would also have to grasp how the system works.

According to Peter Newmark (1979), the reason different medical registers exist is due to historical reasons and because different medical fields evolved separately. The medical language register in European languages is a jungle of synonyms different words being applied to the same condition, depending sometimes on whether the point of view is anatomical, clinical, or pathological, and sometimes on when and where the expression is used.

## **2.15 Discourse**

MacDonald, Malcolm (1994) defined discourse as a symbol system which has an ideological effect. This effect is linked to the maintenance of the interests of hegemonic social groups.

According to Merium Webster (2019) discourse means the use of words to exchange thoughts and ideas.

Roy, C (2000) defined discourse as “the language as it is actually uttered by people engaged in social interaction to accomplish a goal Language beyond the level of grammatical sentences”.

Stubbs (1983) “Discourse has coherent meaning for someone who knows the language in use, and how context determines meaning”.

Nida (1964) *noted that, some* universal models of discourse are very important for translators and interpreters. The four most important classes of discourse are narration, description, argumentation, and conversation. Narration includes novels, stories, personal experiences, history, biography, while description describes the features of complex entities or events, and argumentation is primarily a collection of reasons for or against some development, while conversation is clearly the least regulated. Conversations by politicians can be exceptionally complex because no one knows the rules and each participant is usually seeking his or her personal advantage.

### **2.15.1 Medical Discourse**

James M. Wilce (2009), discourse plays an important role in medicine, and medical discourse in the broadest sense (discourse in and about healing, curing, or therapy; expressions of suffering; and relevant language ideologies) has profound anthropological significance. As modes of social action, writing and speaking help constitute medical institutions, curative practices, and relations of authority in and beyond particular healing encounters.

MacDonald, Malcolm (1994), medical discourse is paradigmatic of Basil Bernstein's model of pedagogic discourse. Pedagogic discourse is constructed

according to the intrinsic grammar of the pedagogic device. This comprises distributive, re-contextualizing and evaluative rules.

Gotti (2008) Medical discourse comprises a range of forms of communication uses the term specialized discourse as “the specialist use of language in contexts which are typical of a specialized community stretching across the academic, the professional, the technical and the occupational area of knowledge and practice”. Three factors are of crucial importance; the user, the domain of use and special application of language. Medical language is used in expert-expert and expert-lay communication, with characteristic features varying from genre to genre, depending on the communicative situation and its participants.

Howard Waitzkin (1989), in the discourse of medical encounters, social problems arise frequently. Such problems typically derive from work and economic insecurity, family life and gender roles, aging, and conditions that foster substance use or other self-destructive behavior. The structure of medical discourse tends to marginalize the social issues that generate personal troubles in everyday life. Long-range strategies to alter medical discourse aim toward basic modifications of power and finance in the larger society of which medicine is a part; such strategies seek to change the contextual issues that create personal troubles on the individual level.

Bauman (1999), Beyond cultural particularity, grasping the significance of medical discourse requires exploring particularities of genre, rejecting over general reference to discourses and invocations of narrative that erase the specificity of local genres. Discourse comes already packaged in relation to genres, discourse types or rules that emerge in activity systems such as clinical encounters and are structurally oriented to expectations; so that performances gain conventionalized reception.

Berkenkotter (2008), specialized discourse genres arose in modern Europe along with sciences such as medicine in histories for which we must account if we are to contextualize medical discourse.

Waitzkin (1991), medical discourse inspired two streams of work beginning in the 1960s, one is U.S based (The Natural History of an Interview project) the other is macro-analytic (The ethnography of communication, emerging at the same time) describing local ways of speaking in general, rather than focusing on curing. Face-to-face interaction of patients and physicians remains the focus of what emerged as conversation analysis (CA).

Yuliia Lysanets (2017) states that, within the framework of written medical texts, case reports are traditionally classified into one of the major groups of medical discourse (along with research papers, review articles, and editorials. As a matter of fact, medical case reports constitute a highly valuable genre of medical literature, since “there is nothing like a good case study for arousing interest, gaining attention, ensuring encouragement, and enabling participation” [Case reports are commonly considered “stepping stones” for further clinical research: “prospective, retrospective and observational randomized controlled trials are always constructed on the basis of data obtained from individual patients”

Apart from their significant role in the dissemination and promotion of medical knowledge, case reports are also valuable in terms of their pedagogic and ethic potential due to their “inextricable connection between narrative and moral knowledge and experience” It is crucial for medical professionals to take into account all these peculiarities in order to be able to produce effective English language since they are an indispensable tool for the dissemination of medical knowledge all over the world.

Mirora (2020) mentioned different types of medical translation as following:

- A. Medical Documents:** They cover any and all reports regarding the healthcare industry. Examples of such documents include package inserts, medical articles, analyzes, clinical trials and discharge reports, medical reports, marketing authorization application files, patient information leaflets/informed consent forms, and medical literature files.
- B. Medical Equipment:** The translation of user guides for devices and equipment used by hospitals and healthcare providers are examples of such documents. When translating these documents, it is necessary to master the product terminology.
- C. Medical Products:** Sometimes, patients may have to use medical products temporarily or permanently. Therefore, it is very important to translate the user guides of medical products to the target language by using simple language. Translation of these documents in a way that almost everyone can understand makes patients' lives easier.
- D. Texts in Psychology and Psychiatry:** Texts in the psychology field should also be translated by a medical translation professional.
- E. Pharmacy:** All reports in this field should be translated into the target language by qualified professional translators in the fields of drug information, patents, marketing authorizations and marketing authorization approvals.

### **2.15.2. History of Medical Discourse**

Henrik R Wulff (2004), the oldest written sources of western medicine are the Hippocratic writings from the 5th and 4th centuries BC, which cover all aspects of medicine at that time and contain numerous medical terms. This was the beginning of the Greek era of the language of medicine, which lasted even after the Roman conquest, since the Romans, who had no similar medical tradition, imported Greek medicine. Most of the doctors practicing in the Roman Empire were Greek, and the works by Galen of Pergamum, from the 2nd century AD, were for centuries valued as highly as the Hippocratic ones.

The Greek legacy comprises numerous names of diseases and symptoms, such as catarrh (downflow, diarrhea, throughflow, dyspnoea, (bad breathing), melancholic (pertaining to black bile) and podagra (a foot trap).

Henrik R Wulff (2004) stated that, during the Middle Ages a third language gained importance as many of the classical Greek medical texts were translated into Arabic. Scholars from the Arab world also made original contributions to medical literature, and a few Arabic terms found their way into western medicine. However, at the time of the renaissance, when Greek was no longer widely understood, both Greek and Arabic works were translated into Latin, and the era of medical Latin began. During the subsequent centuries almost all important medical works were published in Latin. Medical Latin continued to be ordinary Latin with the admixture of numerous Greek and Latin medical terms. Gradually, however, the national languages gained ground at the expense of Latin.

Henrik R Wulff (2004) also added that, the Latin era was followed by the era of the national medical languages, such as medical English, medical French, medical German, medical Italian and many others. A few of these, especially French, German and English, replaced Latin as vehicles for international communication, but most of the others were only used nationally. The national medical languages had much in common since most of the medical terms were derived from medical Latin, but there were systematic differences that still persist. In Germanic languages such as the German, Dutch and Scandinavian ones, anatomical terms and disease names are often imported directly with their correct Latin endings, and English speaking doctors also accept direct loans with Latin endings.

Françoise Salage (2014), the birth and rise of the English for Medical purposes field is related to the mid-twentieth century emergence of English as the lingua franca of scientific communication in general, and of medicine in particular. The evolution is now well documented in a number of publications

s.1A few telling figures: by the end of the 1980s, some two million medical papers were published by about 25,000 medical journals, 15,000 of which all Anglo-American were considered 'serious' journals. By the year 2000, over five million medical papers were published annually.

Montalt, Vicent; Karen Zethsen & Wioleta Karwacka. (2018) noted that, historically translation and medicine have gone hand in hand. A brief look at history reveals that medical translation has existed since the oldest forms of cuneiform writing on clay tablets in Ancient Mesopotamia. Archeologists have found a dictionary in Sumerian, Ugaritic, Akkadian and Hurrian dating from around 1300 BCE containing medical information in its pre-scientific form. Much later, in fifth century BCE Greece, we find the Corpus Hippocratic, a body of texts that inspired further study and spread to other languages and cultures in subsequent centuries, such as in the work of Galen some 400 years later, whose work was translated into Arabic at the House of Wisdom in Baghdad in the ninth century CE. Between the ninth and the twelfth centuries, Arab translations were in turn translated into Latin, together with commentaries added by other Arab scholars (Montalt 2005).

According to Savage-Smith (2001) medieval and early modern scholars in Europe drew upon Islamic traditions and translations as the foundation for their medical studies. Following Wallis & Wisnovski (2016) medieval textual cultures in general, and medicine in particular, can best be understood as products of dynamic processes of transmission, translation and transformation in which translators played a key role as active agents in reshaping and recontextualizing knowledge and texts.

Montalt (2013), In subsequent centuries, medicine gradually turned into a scientific discipline and made huge progress, generating an ever-increasing amount of information as well as compelling needs for knowledge transference, inter-national communication and translation In recent decades, medical translation and interpreting have become important niches for professional t

ranslators and interpreters. National and international health authorities such as the WHO or the EMA, pharmaceutical companies selling medicines in the global market, medical publishers providing books for the future professionals in myriad languages, medical devices manufacturers for all medical specialties, public and private hospitals and other health centers, biomedical research teams in need to publish their results in international journals in English, and NGOs dealing with complex public health issues – such as those encountered in humanitarian crises are among the many organizations in need of translators and interpreters. Thus, the scope of medical translation is rich and varied in genres ranging from research articles to biomedical patents to fact sheets for patients, terminologies, registers, styles, formats, modes as well as in health cultures and ethical restrictions and dilemmas.

Montalt (2013) also added, this rich scenario for medical translation is further enhanced by three emerging forces that are driving healthcare and biomedical research into new territories: patient-centered care (PCC), personalized medicine (PM) and translational medicine (TM). All three bring to the fore the importance of information transfer, recontextualisation and communication, and therefore offer potential niches for translators and interpreters.

### **2.15.3 Problems of Medical Discourse Translation**

Howard Waitzkin (1989), in the discourse of medical encounters social problems arise frequently. Such problems typically derive from work and economic insecurity, family life and gender roles, aging, and conditions that foster substance use or other self-destructive behavior. The structure of medical discourse tends to marginalize the social issues that generate personal troubles in everyday life.

Howard Waitzkin (1989) added that long-range strategies to alter medical discourse aim toward basic modifications of power and finance in the larger society of which medicine is a part; such strategies seek to change the contextual issues that create personal troubles on the individual level. As



shown by the examples of the Soviet Union, Eastern Europe, and China, social revolution does not necessarily resolve the micro-level contradictions of the doctor-patient relationship. In contrast, the Cuban revolution apparently has succeeded in transforming both the context and the structure of medical encounters. Short range strategies in countries such as the United States involve more direct ways in which patients and doctors can alter their communication. These alterations involve reducing devices of language that maintain professional dominance, avoiding the medicalization of nonmedical problems, attempting not to marginalize contextual issues, and encouraging active attempts to change social conditions that generate personal troubles.

Mirora (2020) stated that, translation in all kinds of specific fields is hard, but medical translation is one of the hardest. Medical translation, which requires more than a standard translation process, concerns not only businesses and their clients but also professionals who work to improve the health and lives of people. Medical translation allows the medical information, but also new discoveries to spread. For this reason, it is of vital importance. In addition to this, medical translation is also used in providing health service to minorities and foreigners. Medical translation is crucial for these aspects and it bears a wide variety of hardships for the translator at the same time. The heaviness of medical terminology, the uniqueness of medical language is one of the main details which make the translator's job difficult. Therefore, it wouldn't be wrong at all to say that not every translator can perform medical translation. Only a translator who is specialized in the field and who has knowledge about medical sector and language can come through this work.

Mirora (2020) also added that, the difficulty of medical translation is in the language that is used. Medical terminology, medicines, the medical condition of patients and diseases that affect them are very specific. The words that are used in this sector are specific to the sector. Understanding these words that are not used frequently outside of the sector requires a great deal of specialty a

and experience. It covers a wide variety of fields. Just like medical doctors have their own field of specializations; medical translators have different fields of specializations as well. Therefore the obligation to apply numerous control processes like editing, proofreading, and to manage this work traffic in the right and reliable way is not an easy job. The task of determining and applying these control points according to the type of the medical device or study can be performed by compatible works between translation companies and their clients. One of the important difficulties of medical translation is that it has a large variety of eponyms. In this context, eponym is naming a disease after a real or an imaginary person. Alzheimer's disease, Parkinson's disease, Behcet's disease, Fallopian tubes, Jefferson fracture are the examples of the mentioned eponyms. Equivalents of these eponyms can be different words in the target language. For example, Fallopian tubes are known as Eileiter in German. At this point, the translator has to have the command of both languages.

Salager (1983), appropriate use of medical terminology is one of the core conditions for successful communication in monolingual and multilingual healthcare communities. Medical terminology is diverse not only in terms of the obvious differences between languages, but also due to differences between registers or communication channels. Some features of medical terminology can be observed across languages: Latin and Greek influences, affixation (e.g. dermatitis, conjunctivitis, gastritis and also fail-failed-failure) eponymy (e.g. Parkinson's disease, Alzheimer's disease) or the doublet phenomenon pairs of words of different origins which are used in different registers, e.g. swelling edema, begin initiate. What seems to be particularly problematic for medical translators and writers is adapting their terminological choices to genre-specific and register-specific conventions.

Salager (1983) divided English medical terms into three groups: basic English (BE), fundamental medical English (FME) and specialized medical English (SME).

Fage Butler and Nisbeth Jensen (2016) initially used a division into technical and semi-technical terms, which was later replaced with a five category division: dictionary-defined medical terms, co-text-defined medical terms, medical initialisms, medication brand names and colloquial technical terms. In each of those divisions the lay/expert differences serve as axes of division and each of those divisions accounts for the fact that units from the general register are used in medical communication.

## **Part two: Previous Studies**

In order to ensure a better understanding to the development of this work, this part sheds light on some recent studies.

### ***Study one***

Dr. Abdalhameid Marhoum Alla Allah (2016). A conducted study entitled: Problems of Medical Translation in Sudan.

Medical fields witness major advancements which make them vast ever expanding and developing which places special emphasis on the need to translate them in the best possible manner where translation serves in conveying the similar meaning which is paramount importance due to the severe and may be fatal damages which can result from inaccurate translation due to the importance of the translator or lack of the appropriate measures taken to make medical text, reports, package inserts or any other medical literature legible and well understood by users or consumers.

The study centered on some medical translation problems in Sudan. The study tries to explain the form of some medical translation problems in USA, Brazil and Nigeria to elaborate on some of the medical problems in USA give the most clear and varied problems of medical translation as USA is a country of Multilanguages and cultures where many citizens do not speak English as first language. Research, experiment production and training in various fields take place, so the varied problems of medical translation become most evident. In Brazil, which is a country of a large population many problems of medical translation appear though not as much as USA. Nigeria is a third world country and most of the medical problems there are similar to what is in Sudan. The study adopts a qualitative-quantitative approach. In order to find out and identify the real difficulties behind translating medical terms and how they could be approached by experienced translators, the researcher did interviews with some doctors.

### ***Study two***

Ali, H. I. H., Alhassan, A.m & Burma, I. (2019).

The study is aimed to investigate and shed light on some of the challenges encountered by local interpreters and language assistants working for UN peace-keeping missions, operating in conflict zones, namely in Darfur region, western Sudan. The study addresses the following research questions: what are the linguistic, social-cultural, mistrust and communication-related barriers that are encountered by interpreters and language assistants in conflict zones, how they cope with these challenges, and what could be done to train them to handle such challenges and difficulties.

The study adopted a qualitative methodology with semi-structured interviews being the main method of data collection. Twenty participants agreed to voluntarily take part in the investigation by allowing face-to-face interviews. Interview data was transcribed, coded and analyzed thematically. The results of data analysis showed that participants faced a range of challenges that negatively affected their job. They reported difficulties understanding and dealing with some social and cultural issues specific to the region. They also reported some serious life-threatening incidents ranging from physical and verbal attacks. For example, interpreters encountered hostilities from their fellow citizens accusing them of siding with enemy parties involved in the conflicts.

Additionally, communication barriers were reported by participants as being the most salient challenge they experienced even when they interpreted accurately, as they would still encounter communication breakdowns caused by the inherent differences in the indigenous languages and varieties in addition to some cultural barriers. The paper offers some insights and implications for the conflict zones' interpreters' training and professional development.

### ***Study three***

Shaji. Heba.2013. a conducted study entitled: Terminological Inconsistency in Medical Translation from Arabic into English.

The study tackles the problem of terminological inconsistency in translating English medical terms into Arabic, which is defined as the lack of consistency in the selection of terms or assigning different translations to the same SL terms throughout a text or across relevant texts. The purpose of the present study is to display how factors of terms usability and circulations, the type of the target audience and the context of translation have an important role in lessening terminological inconsistency to a large extent, and, hence, they should be taken into account when determining which type of equivalence should be used to serve as a translation for a single English medical term. The representative data were collected from seven Arabic and translated medical books, two medical dictionaries of Hitti's and the Unified Medical Dictionary (UMD) and 35 drug package inserts (DPIs). Such data sources were chosen in an attempt to compare between the most successful types of translational equivalence in specialized vs. non specialized contexts. Data collection also involved interviews with doctors in which valuable insights about the medical translation process from English into Arabic in general were obtained, and telephone interviews with Palestinian pharmaceutical companies in which a full description of the process of translating DPIs into Arabic was provided. Also, a questionnaire targeting a sample of 100 Arab doctors in Nablus and types of equivalence for English medical terms in both contexts, i.e. Communication among doctors and medical staff vs. doctor patient interaction. The questionnaire also included an open question to give sample population the chance to present their attitudes toward translating medical terms into Arabic. The study has shown that there were five types of terminological inconsistency in relation to the three different types of equivalence, i.e. transliterated, Arabized, and descriptive equivalences. It has been also found that the most used type of equivalence in specialized contexts was the transliterated equivalence while descriptive translations reported the highest rate of circulation in non-specialized contexts. Arabization reported low rates of use in both contexts. The study assessed the validity of the fourth

and latest edition of UMD and has concluded and emphasized its usefulness as it serves as the closest official Arabic medical resource to everyday medical practices. The study has also concluded that approaches of medical translation into Arabic should not be prescriptive but rather descriptive and complying with the Arabic language structure if terminological inconsistency in medical Arabic is to be overcome.

#### ***Study four***

Dr. Misbah M. D. & Du'aa' M. AL-Haj Qasim 2004-2005. A conducted study entitled: Some Problems of Translating English Medical Discourse into Arabic

Medical discourse is a very complicated variety of language. It is usually full of risks and difficulties. A translator is required to exert a great effort to overcome these difficulties and produce an appropriate translation. The present study investigates the semantic, syntactic and lexical aspects of this variety in English and shows how these aspects are realized in Arabic. The study aims at: exploring the main problems that may arise from translating medical discourse, suggesting some remedies for solving them, and proposing new renderings for the texts under discussion if the available translations are unsatisfactory. To achieve these aims, it is hypothesized that the semantic translation of medical discourse is more appropriate than the communicative one. Besides, the translator of medical discourse is not required to have a good linguistic knowledge of both the source and target languages only; rather he must have a medical background as well. Therefore, it is believed here that the best person who fits to be a translator of medical discourse is a person who has a medical competence as well as linguistic competence. To test the validity of these hypotheses, two medical discourses have been selected from a medical book entitled Cancer Pain Relief, which was translated by (the World Health Organization) in 1986. The main findings arrived at are as follows: 1) there are semantic, syntactic and lexical differences between English and Arabic medical discourse. The greatest differences are the syntactic ones (47.2

%). Lexical differences occupy the second place (37.7 %), and semantic differences occupy the third place (15.1 %). These differences resulted in some difficulties through the process of translation which in turn resulted in some shortcomings in the TL texts (see T1, T2).

### *Study Five*

ARGEG, GARSA, MOUSBAH (2015). A conducted study entitled: The Problems of Translating Medical Terms from English into Arabic.

The study tackles the problems of translating medical terms from English into Arabic. It uses an evaluative approach to investigate and discuss the problems and intricacies of translating medical terms from English into Arabic. The purpose of the study is to display the difficulties of translating medical terms and how they were tackled by postgraduate students who are competent in medical translation and professional Arabic translators who work in the medical field. The study adopts a qualitative-quantitative approach. It focuses on different types of medical terms, excluding pharmacy-related terms. In order to find out and identify the real difficulties behind translating medical terms and how they could be approached by experienced translators, the researcher utilized a questionnaire test that included a set of English medical terms to be translated into Arabic by students who were doing a PhD in translation. The same questionnaire was also given to a group of professional Arabic translators. As medical terms are the key components of medical texts, the questionnaire included forty-five diversified English medical terms taken from different medical reports, namely National Health Service (NHS) leaflets and flyers and World Health Organization (WHO) reports for 2007 and 2008. The official Arabic translations of these documents were used to assess the translations given by the subjects in comparison to and contrast with some medical dictionaries and reliable medical websites. The population of the study included 54 postgraduate students (doing PhDs in Arabic translation) in Libyan (the researcher's origin country) and UK universities and 12 Arabic translators working in UK hospitals and clinics.



The results from the data analysis showed that the translation of the medical terms posed real difficulties and challenges for the students and inexperienced professional translators although the experienced professional translators found them comparatively straightforward. Hence, the result highlights the problems of translating medical terms from English into Arabic and the importance of training to work in the medical field as a translator. Also, the study concluded that literal translation, the heavy use of transliteration, inconsistency, the students' lack of sufficient experience and practice in medical translation, and lack of up-to date English-Arabic medical dictionaries are factors that have given rise to problems in medical translation. Also, the study showed that almost no professional translators use CAT tools or MT to help them translate the medical terms.

### *Study six*

ARKADIUSZ BADZIŃSKI (2019). A conducted study entitled: Problems in medical translation among professional and non-professional translators: Collocations as a key issue.

English is currently the lingua franca in medicine, especially due to the development of new terms that combine the medical field with technical areas. The aim of this study is to compare the problems encountered by professional and non-professional translators (physicians) with special attention paid to collocations. Further valuable observations and comments are also added by the respondents. The paper discusses the key position of collocations in the medical register in which the erroneous use of collocations discredits the paper and the researcher, thus hindering the dissemination of medical knowledge. Additionally, some other problematic issues are also highlighted. The author postulates further collocation-related empirical studies with attention paid to the phenomena of both teaching collocations and assessing the competence of the translator in the domain of collocations.

### *Study seven*

Reima Al-Jarf (2018). A conducted study entitled: Multiple Translation Equivalents of English Medical Terms.

Translation of medical texts poses several challenges to undergraduate student-translators due to multiple Arabic equivalents to English medical terms. For medical terms such as clinical, intensive care, polyp, and osteoporosis several Arabic equivalents exist. A sample of English medical terms with multiple Arabic equivalents was collected from several English-Arabic medical dictionaries to find out the types of multiple Arabic equivalents given, the shortcomings of Arabic equivalents, and the difficulties that students have with multiple Arabic equivalents. Two lists of categories with definitions and examples were developed and used in classifying and evaluating the equivalents. In addition, students answered an Arabic medical terminology test and responded to a questionnaire-survey to find out their difficulties. Results of the analysis and evaluation of the Arabic equivalents, medical terminology test, and responses to the questionnaire-survey are reported in detail. Recommendations for translation instruction are also given.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.0 Introduction**

This chapter will describe the methodology of the study. In that it will describe the methods and tools employed the population, samples, and tools of data collection, namely a questionnaire, and test instrument and procedures of data analysis.

#### **3.1 The methodology**

This study is descriptive analytical. It focuses on some linguistic problems encountered by Sudanese MA students of translation in translating medical discourse into Arabic. The researcher will use the descriptive analysis, and quantitative methods by virtue of the questionnaire, and the test as data gathering tools to verify the hypotheses of the study and to find out answers to the questions of the study as stated earlier in chapter one.

#### **3.2 Design of the Study**

As it is known that in any research study, the researcher usually goes through a series of inter-related phases which together make up the design of the study. A research design there for, refers to the general plan of data collection and procedures, which are used in the analysis of data, in order to shed light on the problem under investigation. The aim is to obtain data which serve to answer the research questions thus, a research design in this sense can be defined as the procedures for conducting the study including when, from, whom and under what condition data were obtained. Its purpose is to provide the most valid, accurate answers as possible to the research questions.

This study adopts descriptive analytical method. The aim of such mixed method is to provide quantitative qualitative questionnaire to teachers of translation at Sudanese Universities, and the test which designed for MA students of translation at Sudan University of Science and Technology and University of Bahri students, simple random sampling method was used.

### 3.3 Population of the Study

This includes the samples who respond to the questionnaire, and translation test. The first sample group of this study were teachers of translation at Sudanese universities, they were requested to identify their options in the given questionnaire statements. The second sample group of this study was MA students of translation at Sudan University of Science and Technology and University of Bahri.

MA students of translation were asked to translation medical texts into Arabic.

Table No. (3 – 1) population sample size.

Group	Population	Sample	%
MA students of translation	100	50	20
Total	100	50	20

Source: prepared by the researcher.

Table (3 – 1) shows the total size of the sample of the study which is (100) MA students of translation.

The sample of the study represents approximately (20) of the size of the population of the study and this percentage s statistically considered acceptable.

In order to reach precise results, the researcher was very keen to on taking the samples of the study from different universities.

The sample of the study includes the following:

- 1) MA students of translation according to the experience.
- 2) MA students of translation according to the gender (male – female).

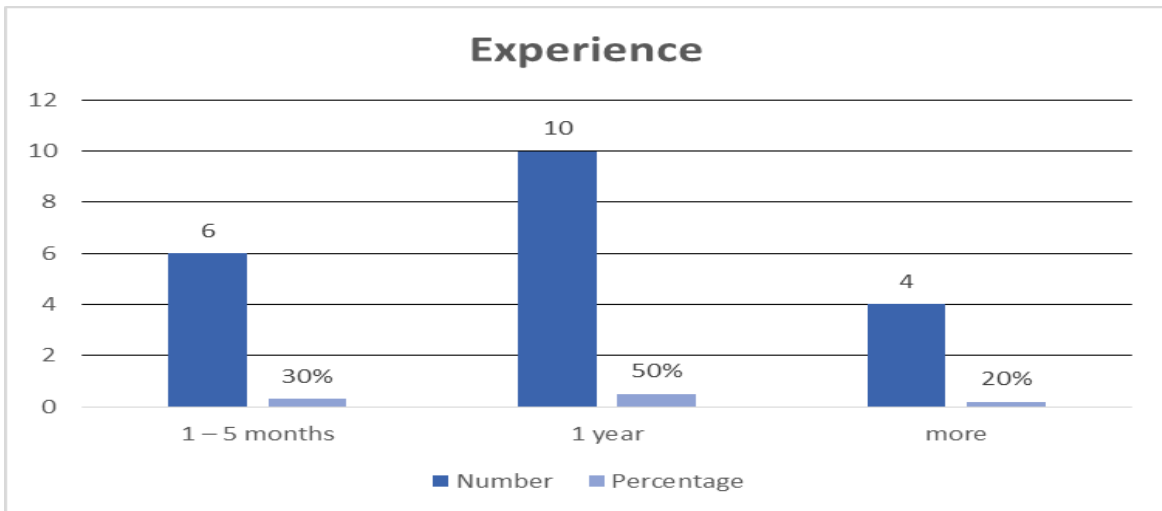
Table NO. (3 – 2): frequency distribution of respondents in study sample

according to experience.

Table NO (3 – 2) Experience

<b>Experience</b>	<b>Number</b>	<b>Percentage</b>
1 – 5 months	6	30 %
1 year	10	50 %
more	4	20 %
Total	20	100 %

Source: outputs of SPSS package



Graph NO. (3 – 1)

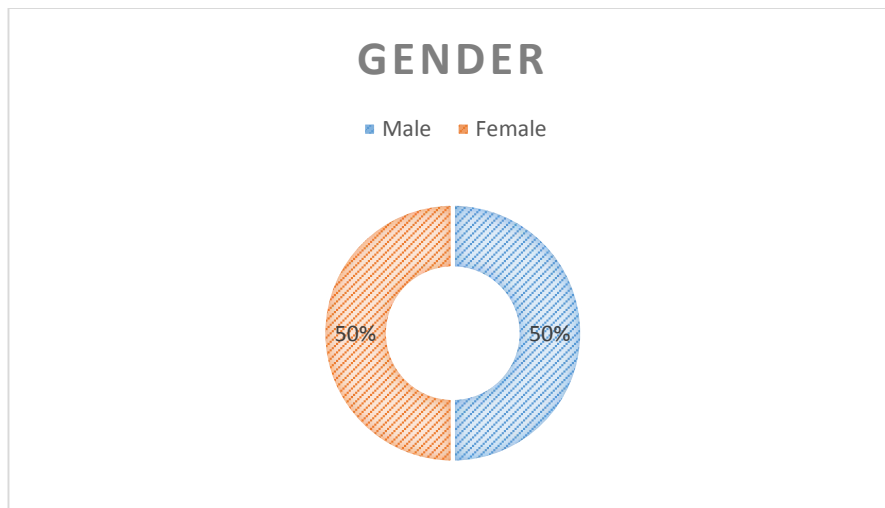
It is very clear from table (3 – 2) and graph (3 – 1) that:

Table (3 – 2) and graph (3 – 1) indicate that the highest percentage for experience years is (1) year experience and the percentage came to 50 %, while those between (1 – 5) month their percentage reached 30% and the lowest percentage of experience reached 20 %. So it can be concluded that the sample of the study lacks experience in translation in general and this will lead to unsatisfactory results on this study.

Table (3 – 3) Gender

Gender	Number	Percentage
Male	50	50 %
Female	50	50 %
Total	100	100 %

Source: outputs of SPSS package.



Graph (3 - 2)

Table (3 – 3) and graph (3 – 22) indicate that the percentage of male came to 50%, then the female reached 50 %.

### 3.4 Data collection Instruments

Choosing a method that enables the researcher to collect relevant information is quiet important, thus selecting the data and gathering tools which apparent to be more suitable and adequate for the study are so crucial. In this study a descriptive analytical method is used. In this study the researcher depends on two tools to collect data about the study. They are; questionnaire and test.

Owen (2006) describes the procedure of data collection as “the process of simplifying and transforming the raw information according to some logical set of procedures or rules”.

### 3.5 Teachers questionnaire

The questionnaire is considered as a tool for gathering data on the topic of the research. It is well known data collection instrument if not most widely used. It is mostly used in survey studies. Where opinions are gathered from certain people about particular issues.

Questionnaire is any written instrument, that present respondents with a series of questions or, statements to which they are to react either by writing out their answers or, selecting their options from among existing answers, so

it is one of the main instrument used in this study, translation teachers. They were requested to identify their options by ticking in the proper place, relating to the mentioned statements. It was 14 statements, extracted from the hypotheses of the study. These statements were about some linguistic problems encountered by MA students of Translation in Rendering Medical Discourse into Arabic. The questionnaire is divided into two parts: the first part includes MA courses and materials. The second part investigates the translation of medical texts into Arabic. The aim of the questionnaire is to see teacher's views about the Rendering Medical Discourse into Arabic. In this study, questionnaire was designed based on the questions of the study. The questions of the study were turned to statements that suggested answers from the teachers at university level who were supposed to select the option which correspond to their opinions.

### **0.5 Population of the Questionnaire**

The populations for this study were university staff members at some Sudanese Universities. The researcher used the simple random sampling to select the population of the study.

### **3.5.2 Sample of the Questionnaire**

The informants were translation teachers at university level. Most of them were full-time teachers. Questionnaire was given to the translation teachers at three other similar universities in the City with the same teaching context. This is important to maintain the validity of the study.

### **3.6 Translation Test**

The translation test is the second tool designed in this study. It is used as a main tool for more clarification for study hypothesis.

#### **3.6.1 The Sample of the test**

The sample of the translation test was MA students of translation at Sudan University of Science and Technology and University of Bahri.



### **3.7 Validity and Reliability**

Validity and reliability are two important criteria for assuring the quality of the data collection procedures. In social science research, Merriam (1998) argues that, all kinds of researches are concerned with producing valid and reliable knowledge in an ethical manner. Validity and reliability are utilized as criteria for judging the quality of this research design.

#### **3.7.1 Validity of the questionnaire**

Validity is the touch stone of all the types of educational research that a researcher tries to ensure. For measuring the validity for the study questionnaire and validation of its statements according to the formulation and explanation, the questionnaire was checked by three PhD holder referees who were specialists in the study field. They recommended adding, omitting, editing some statements. The researcher studied all the recommendations and suggestions and some corrections have been done. The following are the referees and their jobs and their place of work.

Dr. Salah Alkareib Associate professor, Ahfad University for women.

Dr. Amna Elbadri professor, Ahfad University for women.

Dr. Mahmoud Mohammed Ali professor, Sudan University of Science and Technology.

#### **3.7.2 Validity of the Test**

The test was also shown the same referees. Again their suggestions were considered.

### **3.8 Summary**

This chapter presents information about the data corpus used in the Study, including instruments of data collection and methods of presenting data. Besides the research instruments adopted for data collection. Also it's provides a detail description of all the procedures about each instrument, including population, sample, validity and reliability of the instrument.

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.0 Introduction**

This chapter presents the analysis of data obtained from experiment, pre-test, posttest and teachers' questionnaire.

#### **4.1 Analysis of the Experiment**

The analysis of the experiment will focus on answering vital questions the type of linguistic difficulties involved in translating medical terminologies or medical jargons and the effect on the overall standards of the students' interlanguage and knowledge of English. To answer these questions, we computed the mean, standard deviation, standard error and ranges for the pretest- and post-test scores of both experimental and control groups. T-test was computed to find out whether each group had made any progress as a direct result of instruction and practice of translation in general. The following three hypotheses will be verified or confirmed in view of the analysis of the diagnostic test on some selected advertisements from various sources as well as the questionnaire for the tutors.

#### **4.2 Test of the Study Hypotheses**

To answer the study's questions and hence verify its hypotheses, the median will be computed for each question from the diagnostic test, as well as the questionnaire that shows the opinions of the study respondents about the problem in question, namely expanding the issue of translation to cover parts other than headlines to reinforce interlanguage and pragmatic or what is known as pragmalinguistic communicative competence. To accomplish this task five degrees for each answer "strongly agree", four degrees for each

answer "agree", three degrees for each answer "neutral", two degrees with each answer "disagree", and one degree for each answer with "strongly disagree" will be given. This means, in accordance with the statistical analysis requirements, transformation of nominal variables to quantitative variables. After that, we will use the non-parametric chi-square test to know if there are statistical differences amongst the respondents' answers about hypotheses questions. The hypotheses to be tested are as follows:

### **4.3 The Test's Results**

The diagnostic test was administered with the intention of investigating the Translation Constraints and Conventions of Advertising Texts. The texts were drawn from different sources, photocopied and distributed to MA students of translation to attempt translating them. MA students' performance on the diagnostic tests is tabulated below: The test has been designed in a way as to account for the following categories:

### **4.4 Translation procedures**

As far as this section is concerned, three texts have been adopted marked with diverse medical terminologies where students are asked to translate them into Arabic.

#### **Text A**

**Breast cancer** can begin in different parts of the breast. A breast is made up of three main parts: **lobules**, **ducts**, and **connective tissue**. The lobules are the **glands** that produce milk. The ducts are tubes that carry milk to the **nipple**. The connective tissue (which consists of fibrous and fatty tissue) surrounds and holds everything together. Most breast cancers begin in the ducts or lobules. Breast cancer can spread outside the breast through **blood**

**vessels** and **lymph vessels** when breast cancer spreads to other parts of the body.

### **Text B**

**Pelvic inflammatory disease** (PID) is an **infection** of the **female reproductive organs**. It most often occurs when **sexually transmitted bacteria** spread from your **vagina** to your **uterus, fallopian tubes** or **ovaries**. The signs and symptoms of pelvic inflammatory disease can be **subtle** or **mild**. Some women don't experience any signs or symptoms. As a result, you might not realize you have it until you have trouble getting **pregnant** or you develop **chronic pelvic pain**.

### **Text C**

The **COVID-19 pandemic**, also known as the **corona virus pandemic**, is an ongoing pandemic of corona virus disease 2019 (COVID-19) caused by severe acute **respiratory syndrome** corona virus 2 (SARS-CoV-2). The disease was first identified in December 2019 in Wuhan, China. The **World Health Organization** declared the outbreak a **Public Health Emergency** of International Concern on 30 January 2020 and a pandemic on 11 March. As of 12 September 2020, more than 28.6 million cases have been reported in more than 188 countries and territories, resulting in more than 917,000 deaths; more than 19.2 million people have **recovered**.

In translating the three texts the students have been asked to adhere to the following dos and don'ts:

#### **Dos**

- **Use simple words** – write as you'd speak (though avoid swearing or colloquialisms!)
- **Use short sentences** – stick to 15–20 words per sentence

- **Use short paragraphs** – up to 5 sentences per paragraph
- **Use the active voice, not passive** – so it’s ‘the chicken crossed the road’ rather than ‘the road was crossed by the chicken.

**Don’t**

- **Use adjectives and flowery language** – they don’t add any value to your reader so they’re a waste of space (and therefore money)
- **Use jargon and abbreviations** – unless you’re talking to a trade audience and they understand the jargon
- **Be ambiguous** – say what you mean

Table (4 -1)

<b>Parameters</b>	
<b>DOS</b>	<b>DONTS</b>
Use simple words	Use adjectives and flowery language
Use short sentences	Use jargon and abbreviations
Use short paragraphs	Be ambiguous
Use active voice not passive voice	

Table (4.2) Exploring parameters of **simplicity vs. intricacy** as demonstrated by the above text (A) which is mainly on **Breast cancer** and the extent of their rendering into Arabic by MA students:

	Simple	Intricate
--	--------	-----------

Item	Frequency	Percentage	Frequency	Percentage
Sentence (1)	1	2%	49	98%
Sentence (2)	3	6%	47	94%

S e n t e n c e ( 3 )	6	12 %	44	88 %
S e n t e n c e ( 4 )	12	24 %	38	76 %
S e n t e	3	6%	47	94 %

n c e ( 5 )				
T o t a l	50	10 0	50	10 0

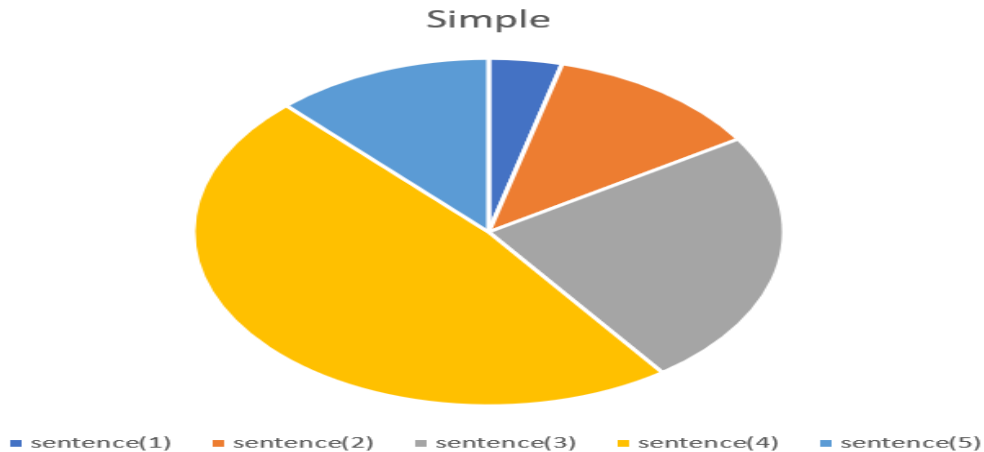
Table (4-2) demonstrates quite clearly that M.A students face difficulty when dealing with the translation of medical jargon. In the first variable (2%) of the participants were able to translate the expression (connective tissues) in sentence (2) correctly, while the majority (98%) fails to provide the exact rendering for the very variable (through **blood vessels** and **lymph vessels**) though it is simple and very undemanding. In the second one, (6%) of the students succeed to give the exact meaning for the transliteration of the words lobules and ducts in sentence (3), whereas (94%) translate the quazi-idiomatic expression (timeless and ahead of its time) incorrectly in the second item, (12%) of the subjects transfer the meaning of the words made up in sentence (3) into Arabic correctly, while (88%) unable to transfer the expression (when breast cancer spreads to other parts of the body.) correctly. In the fourth item, (24%) of the respondents render the meaning of the expression (**Pelvic inflammatory disease**) correctly, while (76%) fail to give the exact meaning of the remaining expressions. In the sixth sentence, (6%) of the subjects translate the expression (**sexually transmitted bacteria**) in

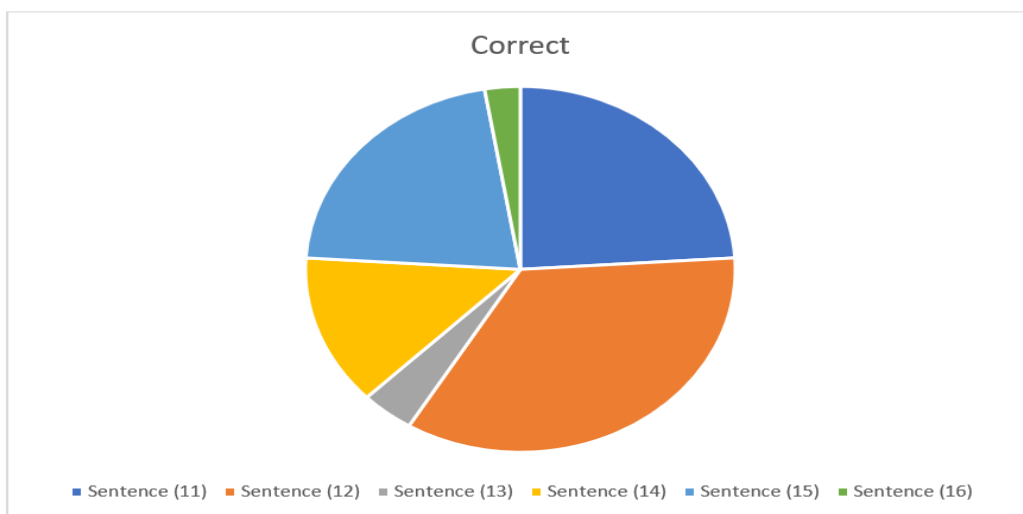


sentence (4) correctly, whereas the majority (94%) of them fail to give the correct translation.

It is cleared that from table (4 - 2) the majority of M.A students encounter a great difficulty in translating advertising expressions into Arabic because of lack knowledge of choosing correct equivalence into the source language and the cultural differences between the two languages (English/Arabic).

This result reflects the sole fact that in order for the students to come to grips with this type of translation which is technical they have to be exposed to different texts from different sources. Print advertising includes display ads, classified ads, direct response ads, brochures and direct mail. A resourceful tutor can easily find his through the internet to such kind of material which can hardly be found as part of syllabus. Tutors should draw their students' attention to the fact that they have to browse through the internet for such materials excessive practice.





These sentences as shown by the figure above have rendered correctly and taken directly from the three texts.

#### **4.5 Analyzing the Questionnaire**

In order to give a full picture of the students rendering of the advertisement s jargon as manifested in different sources newspaper headlines, a questionnaire has to be considered.

##### **(i) Analysis of the Questionnaire**

This chapter is devoted to the analysis, evaluation, and interpretation of the data collected through the questionnaire which was given to 120 respondents who represent the teacher’s community at Sudanese universities namely Sudan University of Science and Technology, Nilain University, Nile Valley University.

##### **(ii) The Responses to the Questionnaire**

The responses to the questionnaire of the 120 teachers were tabulated and computed. The following is an analytical interpretation and discussion of the findings regarding different points related to the objectives and hypotheses of the study.

Each item in the questionnaire is analyzed statistically and discussed. The following tables and figures will support the discussion.

**(iii) Analysis of the Questionnaire:**

A number of questionnaire forms have been distributed to the determined study sample (120), and constructed the required tables for collected data. This step consists transformation of the qualitative (nominal) variables (strongly disagree, disagree, agree, and strongly agree) to quantitative variables (1, 2, 3, 4,) respectively, also the graphical representations were used for this purpose.

**Statement No (1)** MA courses do not include medical courses on bilingual translation:

**(iii) Statistical Reliability and Validity:**

Reliability refers to the reliability of any test, to obtaining the same results if the same measurement is used more than one time under the same conditions. In addition, the reliability means when a certain test was applied on a number of individuals and the marks of every one were counted; then the same test applied another time on the same group and the same marks were obtained; then we can describe this test as reliable. In addition, reliability is defined as the degree of the accuracy of the data that the test measures. Here are some of the most used methods for calculating the reliability:

Alpha-Cronbach coefficient.

On the other hand, validity also is a measure used to identify the validity degree among the respondents according to their answers on certain criterion. The validity is counted by a number of methods, among them is the validity using the square root of the (reliability coefficient). The value of the reliability and the validity lies in the range between (0-1). The validity of the questionnaire is that the tool should measure the exact aim, which it has been

designed for.

In this study the validity calculated by using the following equation:

$$\text{Validity} = \sqrt{\text{Reliability}}$$

The reliability coefficient was calculated for the measurement, which was used in the questionnaire using Alpha-Cronbach coefficient Equation as the following:

For calculating the validity and the reliability of the questionnaire from the above equation, the researcher distributed (20) questionnaires to respondents to calculate the reliability coefficient using the Alpha-Cronbach's coefficient; the results have been showed in the following table.

Table (4 - 3) Calculated results of reliability coefficient.

<b>Scale</b>	<b>Valid ity</b>	<b>Reliabil ity</b>	<b>Num ber of items</b>
<b>Alpha - cronb ach</b>	<b>0.88</b>	<b>0.94</b>	<b>15</b>

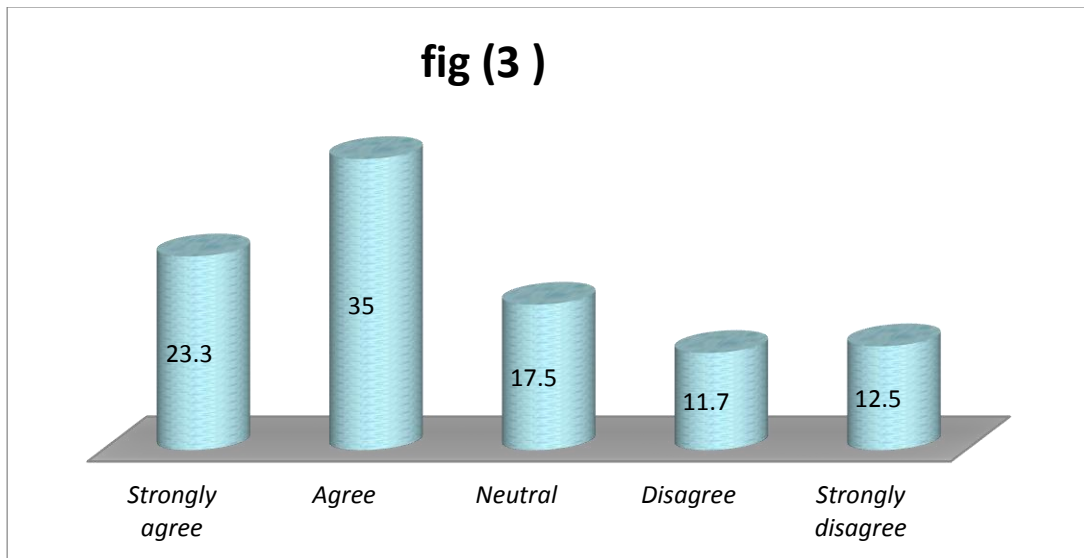
Table No (4 - 4) The Frequency Distribution for the Respondents' Answers of the respondents according to their qualifications

**Statement No (1)** MA courses do not include medical courses on bilingual translation.

Table No (4 - 4) The Frequency Distribution for the Respondent's Answers of Statement No. (1).

<b>Variables</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	28	23.3
<b>Agree</b>	42	35.0
<b>Neutral</b>	21	17.5
<b>Disagree</b>	14	11.7
<b>Strongly disagree</b>	15	12.5
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No (4 - 5) and figure No (3) that there are (28) persons in the study's sample with percentage (23.3%) strongly agreed with " MA courses do not include medical courses on bilingual translation: ” There are (42) persons with percentage (35.0%) agreed with that, and (21) persons with percentage (17.5%) were not sure that, and (14) persons with percentage (11.7%) disagreed. And (15) persons with 12.5% with strongly disagree option.



Despite the fact that translation as a process of conveying messages across certain linguistic and natural boundaries are an inevitable communicative activity courses on MA in translation tend to ignore this important fact of intercultural communication. Translation is a mean of integration at national and international level. Hence, translation experts particularly those working in the field of syllabus design have to pay special attention to this central fact of communication upon designing translation courses. This is sure to bridge the gap between different cultures. The knowledge changing trends, novel ideas, literary development and intra-community exchange of thoughts, all this is possible through translation. All major historical events and revolutions were delivered to the world translation into different languages. Different occasions, ceremonies, meetings and conferences need translators; moreover, translation helps in understanding the influence of one language on the other in a better way, as it involves comparison and contrast which enable the reader or the listener to explore the potential weakness of both source and target language. Translation trains the translators to search for most appropriate words to convey what is meant.

**Statement No (2)** Specialized bilingual medical dictionaries and references are not available to MA students of translation.

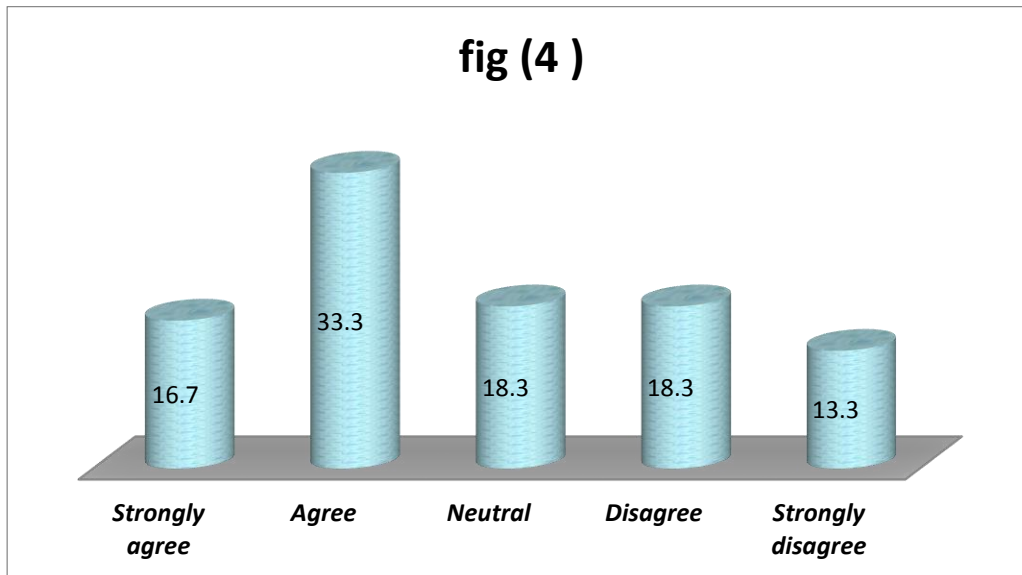
Table No (4 - 5) The Frequency Distribution for the Respondent's Answers of Statement No. (2).

<b>Variable</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	20	16.7
<b>Agree</b>	40	33.3
<b>Neutral</b>	22	18.3
<b>Disagree</b>	22	18.3
<b>Strongly disagree</b>	16	13.3
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No (4 - 5) and figure No (4) that there are (20) persons in the study's sample with percentage (16.7%) strongly agreed with “Specialized bilingual medical dictionaries and references are not available to MA students of translation. . .” There are (40) persons with percentage (33.3%) agreed with that, and (22) persons with percentage (18.3%) were not sure that, and (22) persons with percentage (18.3%) disagreed. and (16) persons with 13.3% are strongly disagree.

Medical translation covers a relatively wider spectrum. In that it is the translation of healthcare, medical product, pharmaceutical and biotechnology materials. Medical translation is a very broad term covering a wide variety of specialist areas and materials everything from patient

information to regulatory, marketing and technical documents. This translation type has numerous potential sub-categories medical device translations and clinical trial translations. Thus it would be difficult to provide specialized dictionaries cater for all these genres.



Medical translation concerns a number of subject areas, including pharmacology, medical rescue system, surgery, obstetrics, pediatrics, psychiatry, internal medicine, oncology, cardiology and other fields of specialty, as well as other disciplines, such as law or administration. However, there are a number of excellent websites that provide good services in relation to medical translation through making electronic dictionaries accessible to students of translation.

According to Wikipedia (2010), medical translation is the practice of translating various documents training materials, medical bulletins, drug data sheets, etc for health care, medical devices, marketing, or for clinical, regulatory, and technical documentation. Most countries require that companies and organizations translate literature and labeling for medical devices or pharmaceuticals into their national language. Documents for clinical trials often require translation for local clinicians and patients and



regulatory representatives. Regulatory approval submissions typically must be translated. In addition to linguistic skills, medical translation requires specific training and subject matter knowledge because of the highly technical, sensitive, and regulated nature of medical texts.

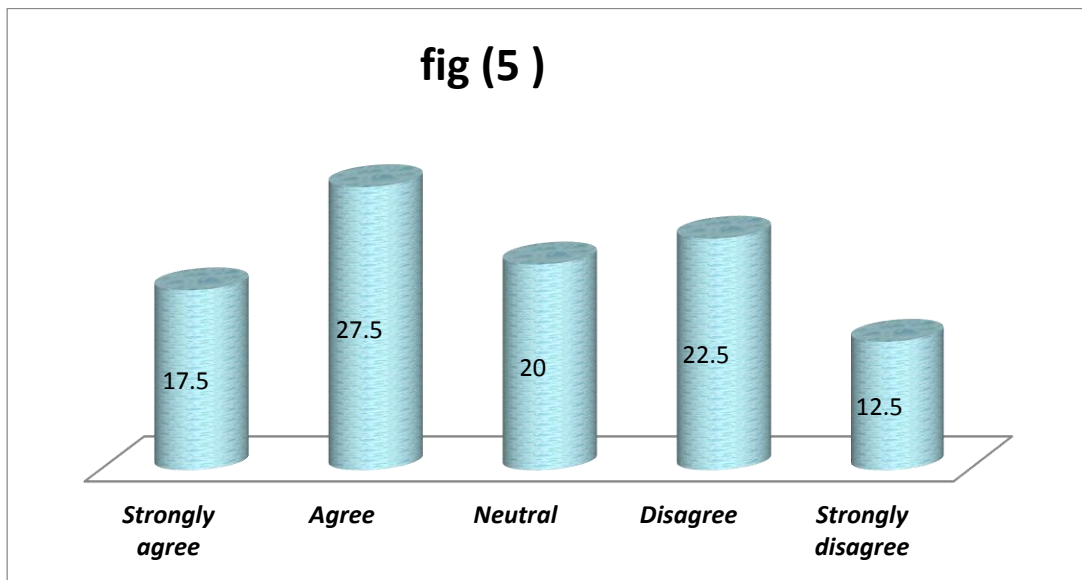
**Statement No (3):** bilingual medical dictionaries and references are not available to MA students of translation.

Table No (4 - 6) The Frequency Distribution for the Respondent's Answers of Statement No. (3).

<b>Variable</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	21	17.5
<b>Agree</b>	33	27.5
<b>Neutral</b>	24	20.0
<b>Disagree</b>	27	22.5
<b>Strongly disagree</b>	15	12.5
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No (4 - 6) and figure No (5) that there are (21) persons in the study's sample with percentage (17.5%) strongly agreed with "Libraries are not well equipped with medical books when looking for background information on a medical topic. "There are (33) persons with percentage (27.5%) agreed with that, and (24) persons with percentage

(20.0%) were not sure that, and (27) persons with percentage (22.5%) disagreed. And (15) persons with 12.5% are strongly disagree.



The problem with medical resources at colleges is a common problem in Africa. This is due to the fact that these African countries are heavily impoverished by colonialists and national rulers and very little fund will go the development of infrastructure. Studying medicine is a costly type of learning that most African universities are incapable of providing running such kind of colleges. So furnishing medical translators with the adequate types of books can be thought of is another dilemma. Historically, universities in the Arab world have been attractive centers of learning.

McMorrow (1998), in the 7th century Baghdad had one of the most prominent medical schools, which was also a school of translators. The works of Persian and Arab physicians were translated into Latin at Toledo School of Translators x. Despite the significant role in translation, the Arabic influence on the language of medicine is relatively small and mainly concerns botanic names or names of herbs. The 13th century marked the beginning of the second wave of translations of Greek manuscripts, which were now

rendered directly and more accurately. Arab scholars have contributed a great deal to this movement. A major change in medical terminology is well under way, one that will not wipe out the classical heritage, but enfold it with many layers of heterogeneous material. So our universities have to be prepared to cope with such kind of change.

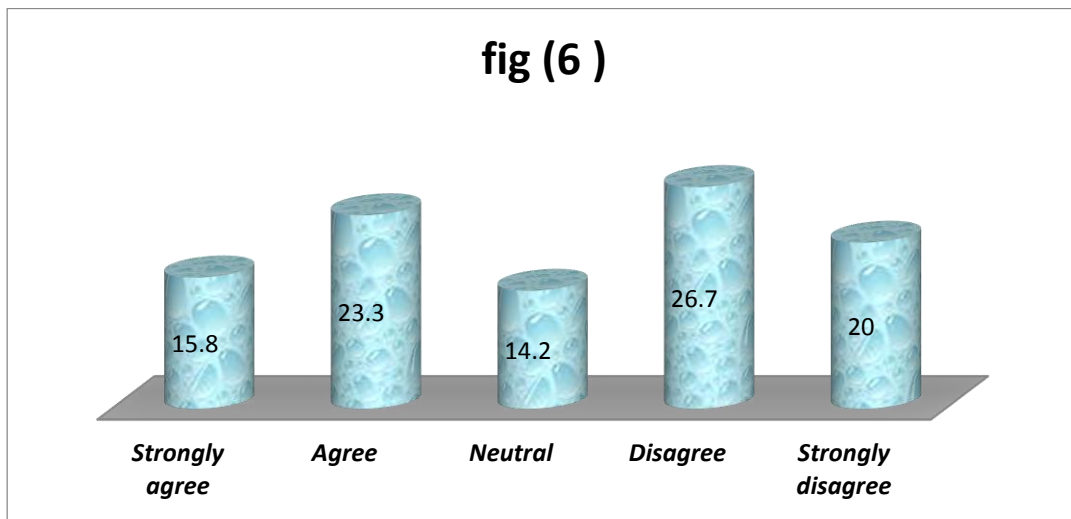
**Statement No (3):** Medical translation involves a number of diverse steps.

Table No (4 - 7) The Frequency Distribution for the Respondent's Answers of Statement No. (4).

<b>Variable</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	19	15.8
<b>Agree</b>	28	23.3
<b>Neutral</b>	17	14.2
<b>Disagree</b>	32	26.7
<b>Strongly disagree</b>	24	20.0
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No (4 - 7) and figure No (6) that there are (19) persons in the study's sample with percentage (15.8%) strongly agreed with "Medical translation involves a number of diverse steps". There are (28) persons with percentage (23.3%) agreed with that, and (17) persons with

percentage (14.2%) were not sure that, and (32) persons with percentage (26.7%) disagreed. and (24) persons with 120.0% are strongly disagree.



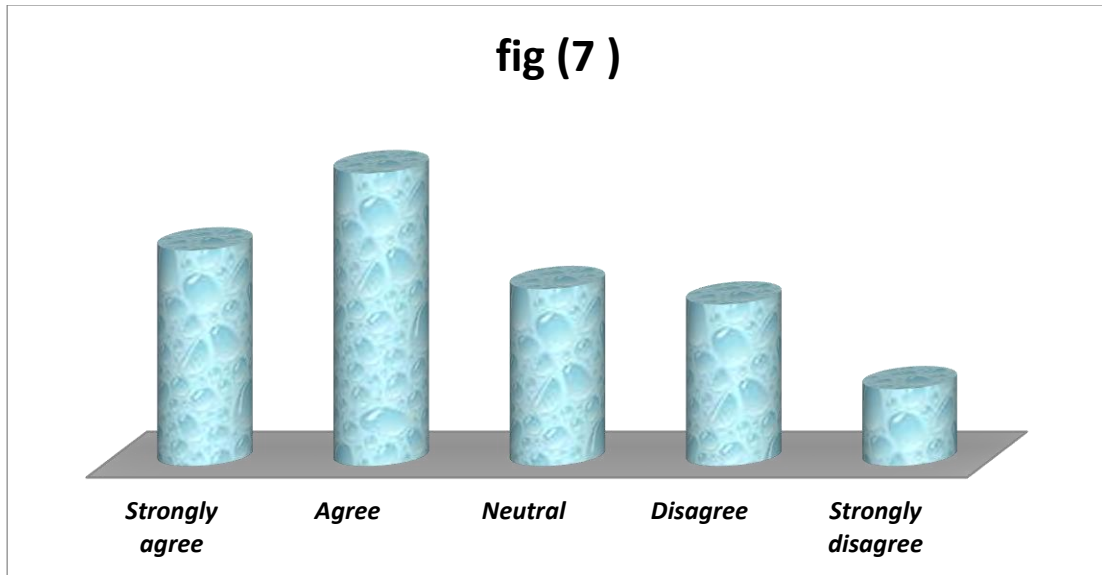
It is true that the process for medical translation involves many steps. It normally starts with the extraction of the text from the source or the original document. The text would then be converted into the target language. After the text been translated, an editor would check it to ensure that the translator followed the medical terms and meaning based on the medical terminology approved by client or the industry. For example, medical translation English to Spanish should use the form of Spanish that is officially recognized in the target country. The editor will also check the voice and the style mirrors that of the source document. After the editor checks and approves the translation, it would be put back into its original format, for example, as an e-learning program or web page or Word document. The translation of medical texts considers the various requirements and rules that pertain to the source texts. Medical translation is very specialized and needs more attention, such as subject matter expertise to be able to accurately translate various documents, from labels to leaflets, to medical journals to patient journals, to training materials to patents.

**Statement No (4):** the scientific world is predominantly English speaking and major scientific journals publish papers in English.

Table No (4 - 8) The Frequency Distribution for the Respondent's Answers of Statement No. (4).

<b>Variables</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	28	25.0
<b>Agree</b>	38	23.3
<b>Neutral</b>	23	19.2
<b>Disagree</b>	21	25.8
<b>Strongly disagree</b>	10	6.7
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No (4 - 8) and figure No (7) that there are (28) persons in the study's sample with percentage (25.0%) strongly agreed with. There are (38) persons with percentage (23.3%) agreed with that, and (23) persons with percentage (19.2%) were not sure that, and (21) persons with percentage (25.8%) disagreed. and (10) persons with 16.7% are strongly disagree.



English became the lingua franca of science; Latin was the dominant language of medicine as of the 2nd century, while Greek remained the language of instruction for medical students until the 3rd century. Modern language of medicine employs modern derivatives of Greek and Latin words “with no concern for etymological purity” The corpus of Greek and Latin terminology is still the base of the contemporary medical language, which also uses new eponyms, acronyms and trade names. Jack Segura (1998) observes that, “Arab armies brought with them a treasure trove of medical and scientific knowledge from Ancient India, Persia, Egypt, Greece and Syria.” Arabs acted as intermediaries in disseminating medical knowledge, including the Greek medical heritage.

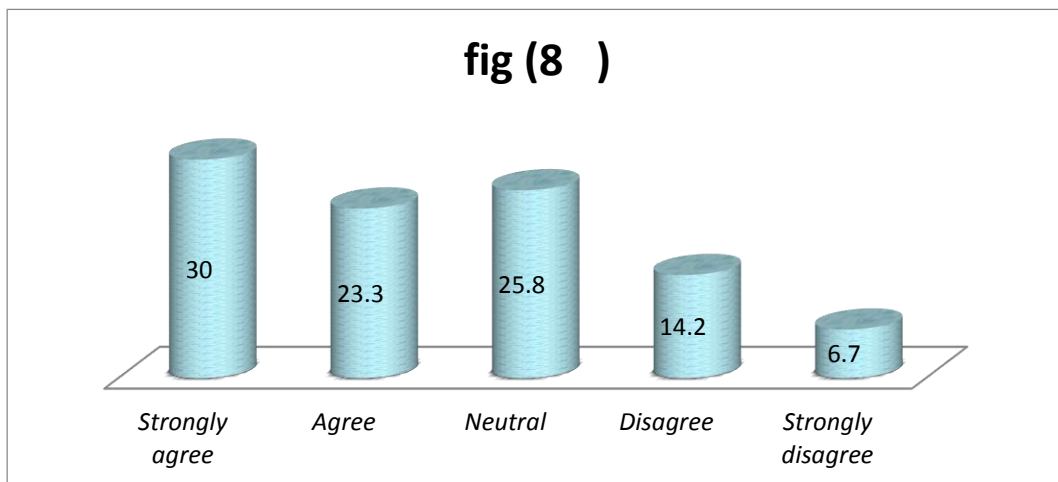
**Statement No (5):** Some linguists claim that there is no recognized discipline called medical linguistics, but perhaps there ought to be one.

Table No (4 - 9) The Frequency Distribution for the Respondent’s Answers of Statement No. (6).

Variable	Frequency	Percentage%
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<b>Strongly agree</b>	36	30.0
<b>Agree</b>	28	23.3
<b>Neutral</b>	31	25.8
<b>Disagree</b>	17	14.2
<b>Strongly disagree</b>	8	6.7
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No (4 - 9) and figure No (8) that there are (36) persons in the study's sample with percentage (30.0%) strongly agreed with " Some linguists claim that there is no recognized discipline called medical linguistics, but perhaps there ought to be one. There are (28) persons with percentage (23.3%) agreed with that, and (31) persons with percentage (25.8%) were not sure that, and (17) persons with percentage (14.2%) disagreed and (8) persons with 16.7% are strongly disagree.



The language of medicine offers intriguing challenges both to medical historians and to linguists. Classical scholars have analyzed the contents and language of the most ancient medical records in great detail, but the later development of medical terminology has received much less attention. The oldest written sources of western medicine are the Hippocratic writings from the 5th and 4th centuries bc, which cover all aspects of medicine at that time and contain numerous medical terms. This was the beginning of the Greek era of the language of medicine, which lasted even after the Roman conquest, since the Romans, who had no similar medical tradition, imported Greek medicine. But during the Middle Ages a third language gained importance as many of the classical Greek medical texts were translated into Arabic. Scholars from the Arab world also made original contributions to medical literature, and a few Arabic terms e.g. (*nucha*) found their way into western medicine. However, at the time of the renaissance, when Greek was no longer widely understood, both Greek and Arabic works were translated into Latin, and the era of medical Latin began.

**Statement No (7):** Medical terminology is the language used to describe components and processes of the human body, medical procedures, diseases, disorders, and pharmacology

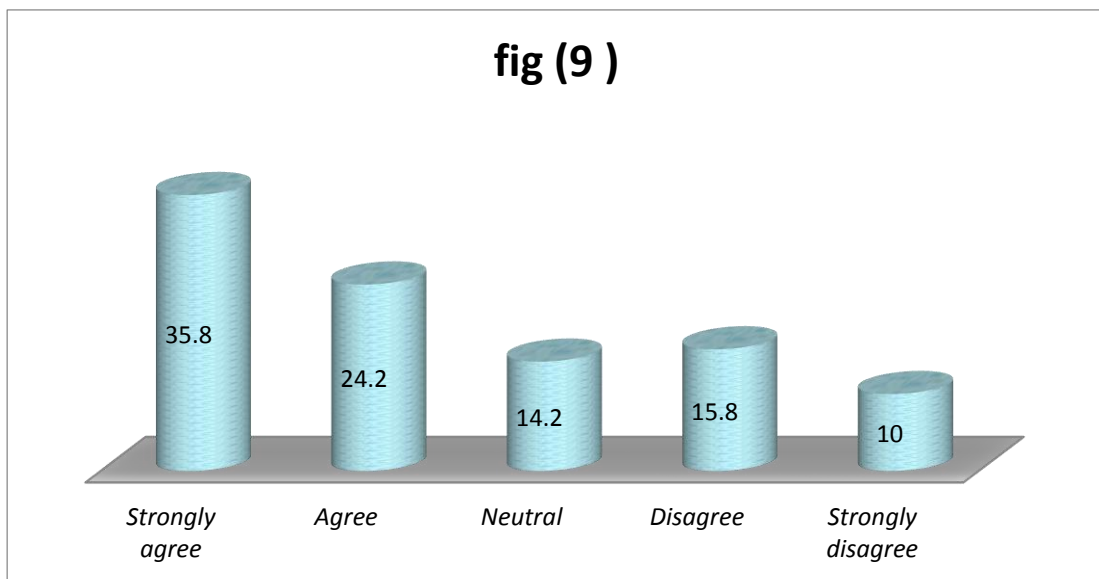
Table No (4 - 10) The Frequency Distribution for the Respondent's Answers of Statement No. (7).

Variable	Frequency	Percentage%
<b>Strongly agree</b>	43	35.8
<b>Agree</b>	29	24.2



<b>Neutral</b>	17	14.2
<b>Disagree</b>	19	15.8
<b>Strongly disagree</b>	12	10

Judging by the table above, it is clear that there are (43) persons in the study's sample with percentage (35.8%) strongly agreed with “Medical terminology is the language used to describe components and processes of the human body, medical procedures, diseases, disorders, and pharmacology “. There are (29) persons with percentage (24.2%) agreed with that, and (17) persons with percentage (14.2%) were not sure that, and (19) persons with percentage (15.8%) disagreed. and (12) persons with 10.0% are strongly disagree.



It is the vocabulary that medical professionals that is used to describe the body, what it does, and the treatments they prescribe. The words within this system usually have prefixes, root words, combining vowels, and suffixes. These elements are combined to create specific terms that help describe

various conditions of the human body. The term “pericarditis” for example, is used to describe inflammation in the outer layer of the heart. We can break the term down into three component parts: peri-card-itis and each part of the word tells us something about the condition. The prefix “peri” means “surrounding,” the root word “card” means “heart,” and finally “it is” means inflammation.

The history of medical terms goes all the way back to the ancient Greeks, specifically Hippocrates. According to the National Institutes of Health, the oldest recorded medical writings are the Hippocratic records from the 4th and 5th centuries BC. Greek and Latin words are still used in modern medical terminology, building on this tradition. In fact, it’s thought that the Greek physician Galen’s writings, which have influenced the world of medicine for almost 1,500 years, are the main reason so many Greek words persist in medical terminology today. Other languages made their way into the lexicon as well: During the Renaissance period, the first anatomists used Latin words to describe the structures of the human body as they were discovered. Arabic was added during the middle ages, as scholars of the language held roles as medical instructors at the time. From 1650 to 1850, Latin was also considered the language of the educated, contributing to its use in medical texts and instruction. Much of modern medical terminology was formulated during this period.

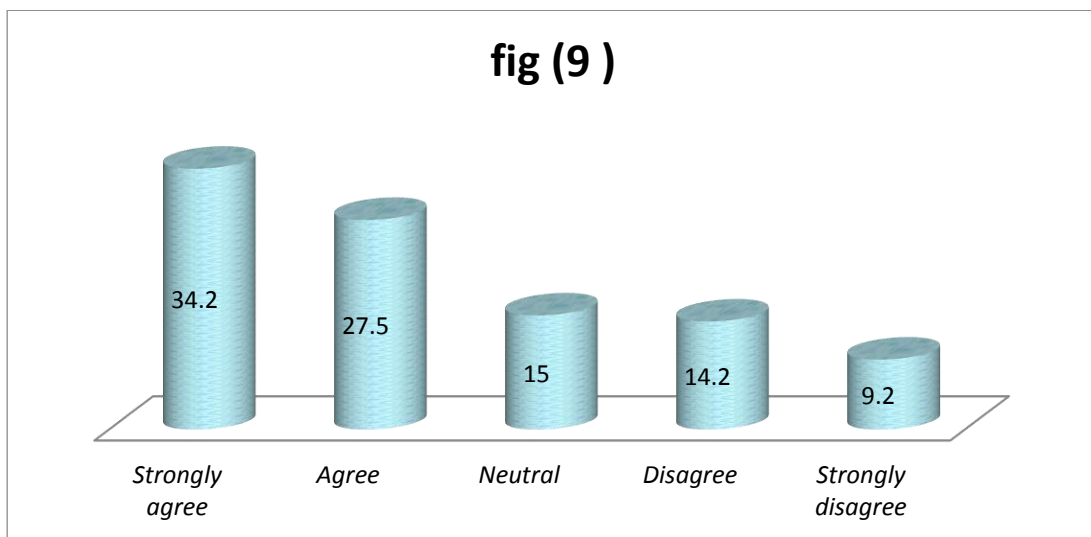
**Statement No (8):** Medical translation can be very challenging.

Table No (4 - 11) The Frequency Distribution for the Respondent’s Answers of Statement No. (8).

Valid	Frequency	Percentage%
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<b>Strongly agree</b>	41	34.2
<b>Agree</b>	33	27.5
<b>Neutral</b>	18	15.0
<b>Disagree</b>	17	14.2
<b>Strongly disagree</b>	11	9.2
<b>Total</b>	<b>120</b>	<b>100</b>

Looking at the above table No (4 - 11) and figure No (9) that there are (41) persons in the study's sample with percentage (34.2%) strongly agreed with “Medical translation can be very challenging”. There are (33) persons with percentage (27.5%) agreed with that, and (18) persons with percentage (15.0%) were not sure that, and (17) persons with percentage (14.2%) disagreed. and (11) persons with 19.2% are strongly disagree.



Medical translation requires more advanced skills due to the need to be highly precise, clear and accurate. A translator cannot afford to mix up terms because it could, quite literally, be a matter of life and death. Medical terminology is especially different with varying spelling in the different language variants. It also includes a lot of abbreviations which can differ from language to language. In addition, medical translators can also face considerable challenges in understanding medical procedures and knowhow. The following are the procedures which translators should put on consideration.

Medical technology is evolving around the globe. Many medicines and equipment are manufactured in different countries and then exported. Thus, the relevant documentation needs to be translated into a range of target languages (often including English) alongside the language of the manufacturer's home country. The exponential rise in the number of medical concepts and the quantity of research has made medical translation and localization all that more complex and demanding.

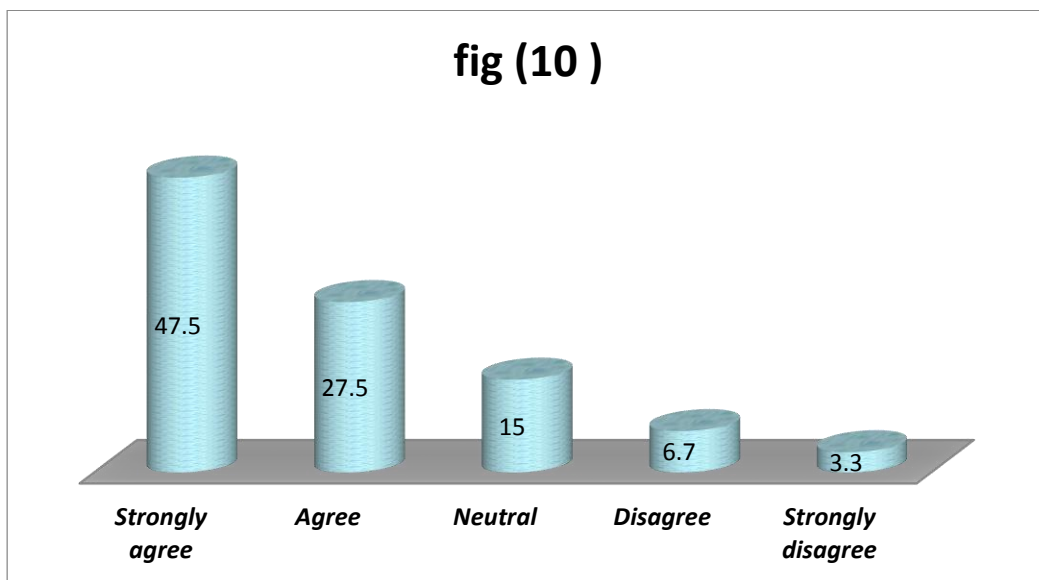
**Statement No (8):** In medical translation, a linguist needs to be equally to an expert in medical knowhow and the target language.

Table No (4 - 12) The Frequency Distribution for the Respondent's Answers of Statement No. (9).

<b>Variables</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	57	47.5
<b>Agree</b>	33	27.5

<b>Neutral</b>	18	15.0
<b>Disagree</b>	8	6.7
<b>Strongly disagree</b>	4	3.3

It is clear from the above table No. (4 - 12) and figure No (10 ) that there are (57) persons in the study's sample with percentage (47.5%) strongly agreed with " In medical translation, a linguist needs to be equally to an expert in medical knowhow and the target language. . .". There are (33) persons with percentage (27.5%) agreed with that, and (18) persons with percentage (15.0%) were not sure that, and (8) persons with percentage (6.7%) disagreed. and (4) persons with 13.3% are strongly disagree.



Translating medical documents and texts is highly complex due to the many special terms which are difficult and cannot necessarily be translated directly into the different languages. This field is so unique that even bilingual doc

tors and nurses are not advised to translate medical texts. Only specialist professionals can perform this type of translation in such a way as to avoid mistakes, prejudice and common knowledge that can cloud such a translation.

Medical translators undergo intensive training that is both time consuming and expensive. A regular translator cannot do medical translation even if they are fluent in the language and know the common phrases and idioms. There have been several reported cases of deaths due to lack of an appropriate medical interpreter at a number of hospitals around the world. As a result, only a linguist who has undergone intensive training in medical translation should be entrusted with the task.

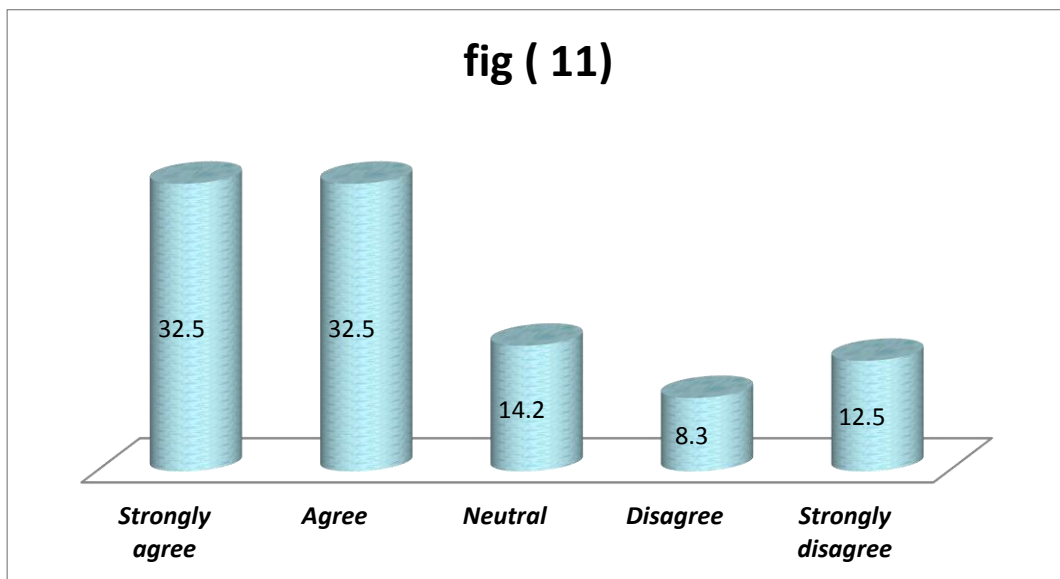
**Statement No (10):** One of the greatest challenges facing a medical translator is to translate the texts and documents in a way that meets the needs of two distinct target audiences, patients or laymen and doctors and other medical professionals.

Table No (4 - 13) The Frequency Distribution for the Respondent's Answers of Statement No. (10).

<b>Variable</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	39	32.5
<b>Agree</b>	39	32.5
<b>Neutral</b>	17	14.2
<b>Disagree</b>	10	8.3

<b>Strongly disagree</b>	15	12.5
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No (4 - 13) and figure No (11) that there are (39) persons in the study's sample with percentage (32.5%) strongly agreed with " One of the greatest challenges facing a medical translator is to translate the texts and documents in a way that meets the needs of two distinct target audiences, patients or laymen and doctors and other medical professionals. There are (39) persons with percentage (32.5%) agreed with that, and (17) persons with percentage (14.2%) were not sure that, and (10) persons with percentage (8.3%) disagreed. and (15) persons with 12.3% are strongly disagree



Depending on the target audience a translator will use different terms. For example, the term 'Varicella' means Chicken Pox. Depending on who is he/s

he translating for, the medical translator would either use the term Varicella for doctors and Chicken Pox for the lay audience.

It was noted that Medicine is a field of knowledge in accelerated scientific and technological development that each year incorporates a large number of new terms into the medical lexicon. Because of the need to quickly update their knowledge, health professionals learn directly in the original language of the publication and stick to it in daily usage.

It is only much later on that the first attempts to translate these terms start to timidly appear, and this leads to further problems: for a lot of words, it is not easy to find suitable corresponding terms in the target language, thus making translation difficult. This process is often carried out by medical students who have no translating experience and little knowledge of the source language, or especially of the target language. They can also be carried out by professional translators who are not familiar with the associated vocabulary or medical practice, resulting in seriously distorted meanings.

**Statement No (11):** What set medical translation apart from other technical translations in terms of difficulty is its multiple registers.

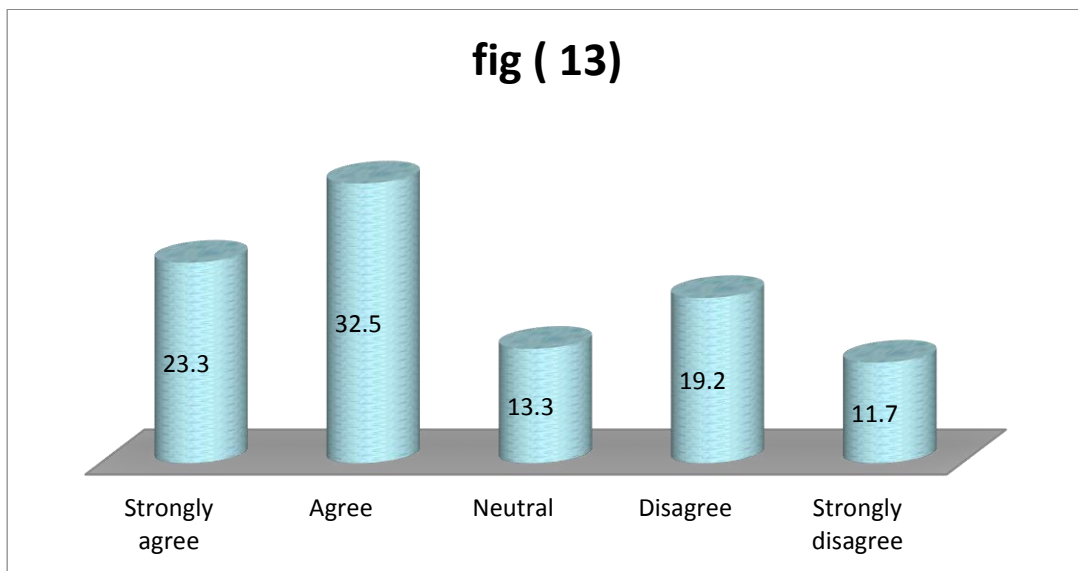
Table No (4 - 14) The Frequency Distribution for the Respondent's Answers of Statement No. (11).

<b>Variables</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	28	23.3
<b>Agree</b>	39	32.5
<b>Neutral</b>	16	13.3



<b>Disagree</b>	23	19.2
<b>Strongly disagree</b>	14	11.7
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No.( 4 - 14) and figure No (13 ) that there are (28) persons in the study's sample with percentage (23.3%) strongly agreed with " What set medical translation apart from other technical translations in terms of difficulty is its multiple registers ". There are (39) persons with percentage (32.5%) agreed with that, and (16) persons with percentage (13.3%) were not sure that, and (23) persons with percentage (19.2%) disagreed. and (14) persons with 11.7% are strongly disagree.



In the field of medicine, many body parts and diseases have one name in a more elevated medical register and another in a lower colloquial register. Examples include "thorax" versus "chest," and "pertussis" versus "whooping cough". Medical translation is considered especially difficult because the

translator needs to know how the body works, how a disease evolves, etc. One could argue that a translator working on an electrical engineering text on power transmission systems would also have to grasp how the system works.

Different medical registers exist is due to historical reasons and because different medical field evolved separately. The medical language register in European languages is a jungle of synonyms different words being applied to the same condition, depending sometimes on whether the point of view is anatomical, clinical, or pathological, and sometimes on when and where the expression is used.

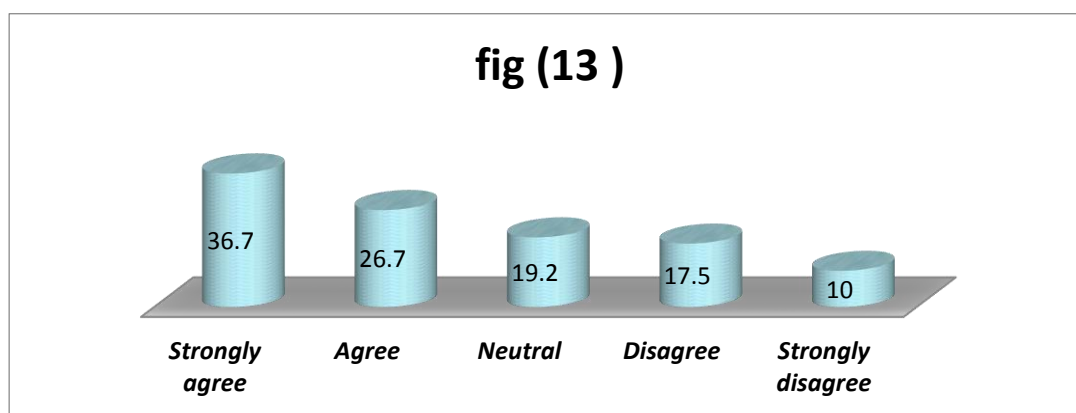
**Statement No (12)** free translation is a method is not useful for medical translation

Table No (4 - 15) The Frequency Distribution for the Respondent's Answers of Statement No. (12)

<b>Variables</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	44	36.7
<b>Agree</b>	32	26.7
<b>Neutral</b>	23	19.2
<b>Disagree</b>	9	17.5
<b>Strongly disagree</b>	12	10.0

<b>Total</b>	<b>120</b>	<b>100</b>
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It is clear from the above table No (4 - 15) and figure No (13) that there are (44) persons in the study's sample with percentage (36.7%) strongly agreed with free translation is a method is not useful for medical translation. There are (32) persons with percentage (26.7%) agreed with that, and (23) persons with percentage (19.2.3%) were not sure that, and (9) persons with percentage (17.5%) disagreed. and (12) persons with 110.0% are strongly disagree.



Free translation is a method to deliver the intended meaning of the source text without paying attention to details such as syntax, style and so on of the original text. Free translation is suitable in case the translation is difficult to be understood or accepted by the readers or the translation seems not as attractive or powerful as the original text by approach of literal translation. The purpose of free translation is to keep the source language function, even if general meaning suffers from it. Content must remain unchanged. Certain changes to categories like social and cultural environment, genre or communicative dimension (tonality, dialect) are okay. These changes vary according to the target audience e.g. (if the text is aimed at children), new designation (stage adaptation), change of context or personal choice. This

method is the easiest to apply but it doesn't apply for any type of text; before approaching translation "freely", we must take into account the listed categories subject to change.

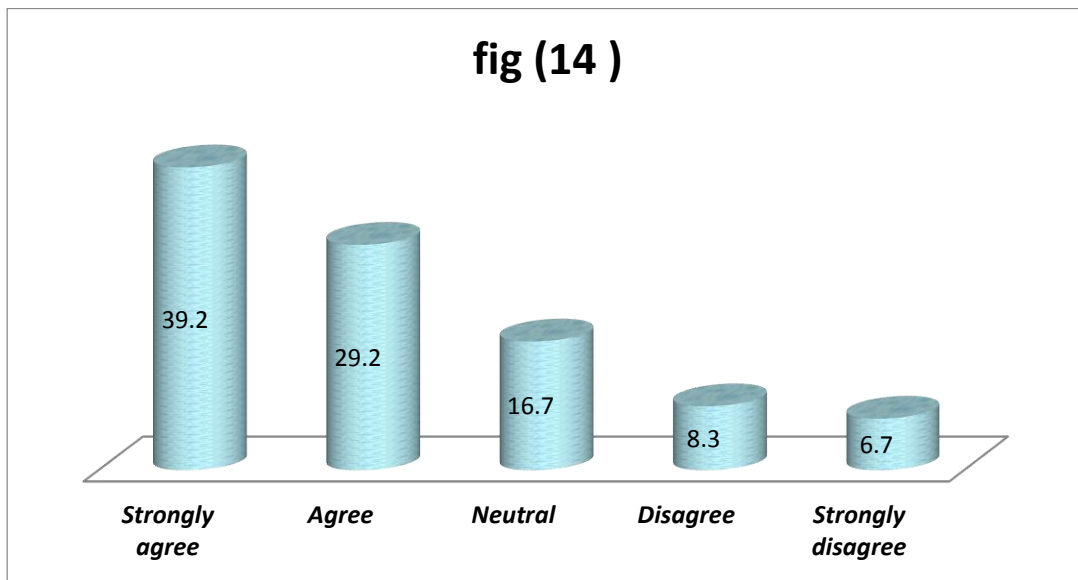
**Statement No (13)** the crucial problems of translation are often stated in terms of a conflict between formal correspondence and functional equivalence.

Table No (4 -16) The Frequency Distribution for the Respondent's Answers of Statement No. (13)

<b>Variables</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	47	39.2
<b>Agree</b>	35	29.2
<b>Neutral</b>	20	16.7
<b>Disagree</b>	10	8.3
<b>Strongly disagree</b>	8	6.7
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No. (26) And figure No (14) that there are (47) persons in the study's sample with percentage (39.2%) strongly agreed with "The crucial problems of translation are often stated in terms of a conflict between formal correspondence and functional equivalence . . . ". There are (35) persons with percentage (16.7%) agreed with that, and (20) persons with percentage (8.3%) were not sure that, and (10) persons with

percentage (6.7%) disagreed. and (8) persons with 110.0% are strongly disagree.



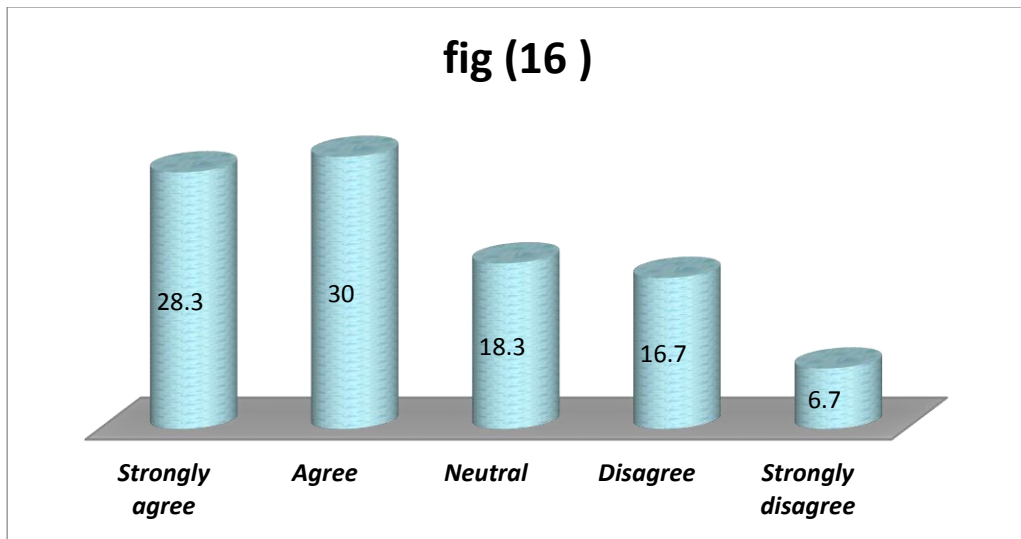
The crucial problems of translation are often stated in terms of a conflict between formal correspondence and functional equivalence. On the basis of this dichotomy, Nida, and Newmark (1964) subscribe to similar versions of two basic methods of translation: Formal Equivalence VS functional equivalence and communicative translation VS semantic translation. De waard and Nida (1986) substitute the term, {Functional Equivalence} for dynamic equivalence of (These are SL and TL by new mark to author-centered, expressive texts whiles the latter to truth-centered, informative texts and reader-centered, vocative texts. Below is brief review of the text types and their related translation methods.

**Statement No (14)** Discourse plays an important role in medicine, and medical discourse in the broadest sense (discourse in and about healing, curing, or therapy; expressions of suffering; and relevant language ideologies) has profound anthropological significance.

Table No (4 - 17) The Frequency Distribution for the Respondent's Answers of Statement No. (14)

<b>Variables</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	34	28.3
<b>Agree</b>	36	30.0
<b>Neutral</b>	22	18.3
<b>Disagree</b>	20	16.7
<b>Strongly disagree</b>	8	6.7
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No. (4 - 17) and figure No (15) that there are (47) persons in the study's sample with percentage (39.2%) strongly agreed with “Discourse plays an important role in medicine, and medical discourse in the broadest sense (discourse in and about healing, curing, or therapy; expressions of suffering; and relevant language ideologies) has profound anthropological significance.” There are (35) persons with percentage (16.7%) agreed with that, and (20) persons with percentage (8.3%) were not sure that, and (10) persons with percentage (6.7%) disagreed. and (8) persons with 10.0% are strongly disagree.



Discourse plays an important role in medicine, and medical discourse in the broadest sense (discourse in and about healing, curing, or therapy; expressions of suffering; and relevant language ideologies) has profound anthropological significance. As modes of social action, writing and speaking help constitute medical institutions, curative practices, and relations of authority in and beyond particular healing encounters.

Medical discourse is paradigmatic of Basil Bernstein's model of pedagogic discourse. Pedagogic discourse is constructed according to the intrinsic grammar of the pedagogic device. This comprises distributive, recontextualizing and evaluative rules.

Medical discourse comprises a range of forms of communication uses the term specialized discourse as “the specialist use of language in contexts which are typical of a specialized community stretching across the academic, the professional, the technical and the occupational area of knowledge and practice”. Three factors are of crucial importance; the user, the domain of use and special application of language. Medical language is used in expert-expert and expert-lay communication, with characteristic features varying from genre to genre, depending on the communicative situation and its participants.

In the discourse of medical encounters, social problems arise frequently. Such problems typically derive from work and economic insecurity, family life and gender roles, aging, and conditions that foster substance use or other self-destructive behavior. The structure of medical discourse tends to marginalize the social issues that generate personal troubles in everyday life. Long-range strategies to alter medical discourse aim toward basic modifications of power and finance in the larger society of which medicine is a part; such strategies seek to change the contextual issues that create personal troubles on the individual level.

**Statement No (15)** Grasping the significance of medical discourse requires exploring particularities of genre and other things including culture.

Table No (4 - 18) The Frequency Distribution for the Respondent's Answers of Statement No. (17)

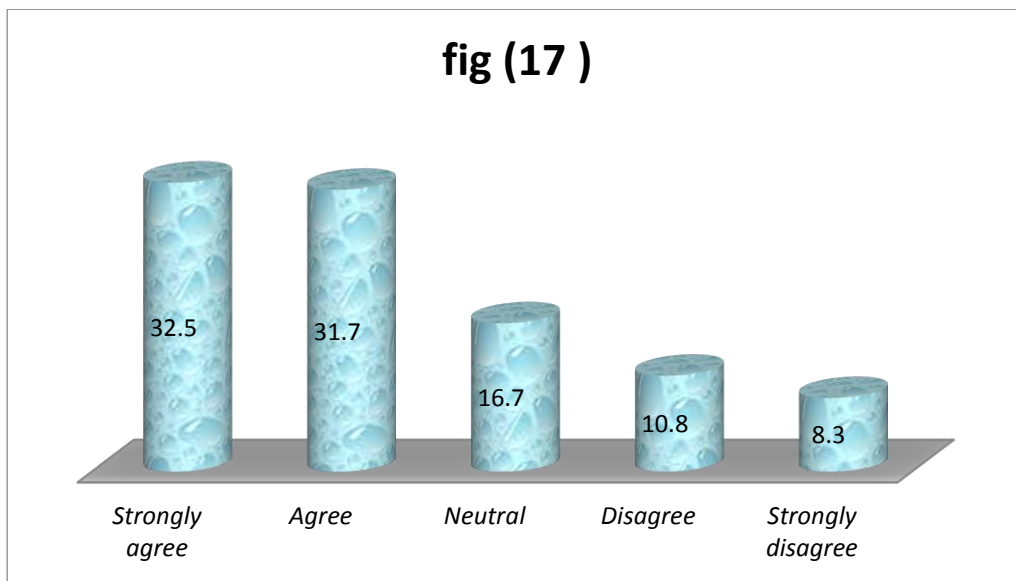
<b>Variable</b>	<b>Frequency</b>	<b>Percentage%</b>
<b>Strongly agree</b>	39	32.5
<b>Agree</b>	38	31.7
<b>Neutral</b>	20	16.7
<b>Disagree</b>	13	10.8
<b>Strongly disagree</b>	10	8.3
<b>Total</b>	<b>120</b>	<b>100</b>

It is clear from the above table No. (4 - 18) and figure No (17) that there are (39) persons in the study's sample with percentage (32.5%) strongly agreed



with “Grasping the significance of medical discourse requires exploring particularities of genre and other things including culture.

. ". There are (38) persons with percentage (31.7%) agreed with that, and (20) students with percentage (16.7%) were not sure that, and (13) persons with percentage (10.8%) disagreed. and (10) persons with 18.3% are strongly disagree.



Beyond cultural particularity, grasping the significance of medical discourse requires exploring particularities of genre, rejecting over general reference to discourses and invocations of narrative that erase the specificity of local genres. Discourse comes already packaged in relation to genres, discourse types or rules that emerge in activity systems such as clinical encounters and are structurally oriented to expectations; so that performances gain conventionalized reception. Specialized discourse genres arose in modern Europe along with sciences such as medicine in histories for which we must account if we are to contextualize medical discourse.

Medical discourse inspired two streams of work beginning in the 1960s, one is U.S based (The Natural History of an Interview project) the other is macr

o-analytic (The ethnography of communication, emerging at the same time) describing local ways of speaking in general, rather than focusing on curing. Face-to-face interaction of patients and physicians remains the focus of what emerged as conversation analysis (CA).

Within the framework of written medical texts, case reports are traditionally classified into one of the major groups of medical discourse (along with research papers, review articles, and editorials. As a matter of fact, medical case reports constitute a highly valuable genre of medical literature, since “there is nothing like a good case study for arousing interest, gaining attention, ensuring encouragement, and enabling participation” [Case reports are commonly considered “stepping stones” for further clinical research: “prospective, retrospective and observational randomized controlled trials are always constructed on the basis of data obtained from individual patients”

#### **4.6 Summary**

This chapter as apparent from its title: Data analysis and discussion, has analyzed the collected data through the test and the questionnaire to confirm the hypotheses of the study and find answers for the questions posed in chapter one.

## **Chapter Five**

### **Findings and Recommendations**

#### **5.0 Introduction**

This chapter includes a summary of the research, the conclusion and the recommendations suggested by the researcher for tackling the challenges that face the Sudanese translators in rendering medical discourse into Arabic to improve the standard quality of medical translation.

Furthermore the researcher in this chapter will give suggestions for further research relevant to the subject of the study.

## **5.1 Summary**

During the translation of medical discourse, MA students of translation experience many linguistic difficulties involved in rendering medical discourse into Arabic and they confront an ambiguous situation of not understanding the structure and nature of the medical language and one of the main challenges is that they face difficulty using the appropriate equivalent and this due to that most of the medical terms are borrowed from Latin and classic Greek.

Therefore MA students of translation depend on their limited knowledge and tend to the literary translation which it will definitely give wrong translation and that may lead to a real disaster. Moreover the researcher assumes that there are many different elements that would affect the translation of medical text into Arabic such as the lack of the translator's knowledge about the medical terms, the lack of the translator's background in the medical field, translator's working atmosphere, the absence of the continuous training, the insufficient experience and the optimal use of information resources.

The researcher conducted this study utilizing a questionnaire to investigate the opinion of translation teachers, and a test which is given to MA students of translation to investigate the linguistic problems encountered by MA students of translation in rendering medical discourse into Arabic during the years (2019 – 2021).

The questionnaire consists of two questions which are (1. To what extent are MA courses satisfactory for providing good knowledge about medical

translation? 2. How do translation teachers view the performance of MA students of translation?).

The researcher constructed (14) statements on the assumed problems of medical translation.

The items of the questionnaire were based from the following:

1. Theoretical literature on the problem of translating medical discourse into Arabic.
2. The previous studies.

The researcher used the closed-ended questionnaire with the following details:

The questionnaire consists two parts.

Part one includes general information about the MA courses, the specialized bilingual medical dictionaries and references, Libraries and Medical textbooks.

Part two includes the difficulties that face MA students of translation in rendering medical discourse into Arabic and the elements behind that.

The statements of the study deal with some challenges in the medical domain:

1. Medical terminology.
2. Lexical equivalence of medical texts.
3. readability and quality issue

In accordance to the research findings, the researcher provided recommendations for improving translation of the medical discourse.

The researcher gave suggestions for further research related to the field of the study in general and the title of the study in particular.

## **5.2 Conclusion**

Insofar as the theoretical literature of medical translation is concerned; it is

obvious that the researcher has focused while explaining the linguistic problems of rendering medical discourse into Arabic.

The result of the current study shows that there different problems that face MA students of translation when translating medical discourse into Arabic.

### **5.3 Main Findings**

1. MA students are not familiar with medical terminologies.
2. The majority of MA students encounter a great difficulty in translating medical expressions into Arabic.
3. MA courses do not include medical subjects on bilingual translation.
4. The MA courses of translation tend to ignore important fact of intercultural communication in the medical field.
5. Bilingual medical dictionaries and references are not available to MA students of translation.
6. The problem with medical resources at colleges is a common problem Sudan.
7. Medical translation involves a number of diverse steps.
8. The language of medicine offers intriguing challenges.
9. Medical translation requires more advanced skills due to the need to be highly precise, clear and accurate.
10. Translating medical documents and texts is highly complex due to the many special terms which are difficult and cannot necessarily be translated directly into the different languages.
11. One of the greatest challenges facing a medical translator is to translate the texts and documents in a way that meets the needs of two distinct target audiences, patients or laymen and doctors and other medical professionals.
12. free translation as a method is not useful for medical translation

## **5.4 Recommendations**

### **A. Sudanese Universities**

- Inclusion of medical translation courses within the general translation master's programs.
- Providing educational methods for teaching medical translation courses.
- Providing references and dictionaries concerning medical translation at college of graduate studied and college of languages libraries.

### **B. Ministry of High Education**

- The ministry should provide curricula concerning medical translation.
- Providing qualified personnel to offer practical training on medical translation.
- Providing scholarships for having high qualification in the specialty of medical translation.
- Providing technical and financial support for institutes that offer medical translation courses.
- Coordination with The Sudanese Medical Council in order to instruct an educational institutes such universities and other training establishment to pay attention to good language communication between the doctor-patient to break any barriers which may exists for a better understanding of the patient's ailment and reach a right judgment of the treatment.

### **C. Federal Ministry of Health**

- Supervising the medical translation curricula and courses to ensure the correctness of the content and making the necessary amendments which facilitates the educational work.
- Helping in providing the medical materials.
- Directing the translation institutions to satisfy the need of using the medical terminologies to avoid future complication pidgin language.

- Issuing the necessary laws to make the translation of medical documents and catalogues into Arabic mandatory before allowing the import of medical device and others.
- Coordination with the Association of Sudanese Translators to make use of services of the association in the field of medical translation in translating documents from English into Arabic or vice versa.
- Coordination with the sign language translators to acquire their services in the special cases where handicapped patients seek medical treatment.

#### **D. Association of Sudanese Translators**

- Activating the cooperation with various medical organizations.
- Giving the required advice for institutions of translations in general and medical translators in particular.
- promoting the interactions between medical translators and translation institutions in order to boost and upgrade these important services in the field medical translation.
- Seeking offers for Sudanese translators to participate in regional and international events such as conferences, workshops and other scientific gatherings in the field of medical translation

#### **E. Approved Translation Offices**

- Providing training opportunities on medical translation.
- Cooperation with universities and various medical bodies in order to develop and improve the profession of medical translation.

#### **5.5 Suggestions for Further Studies**

1. Investigating the challenges of translating the medical terminologies.
2. The importance of medical translation as a means of communication related to the healthcare.
3. Discussing the Problems of using free translation as a method for translating medical texts.

#### 4. Investigating the intercultural communication in the medical field.

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## **Appendices (1)**

### **The Open Questionnaire**

Dear / Teachers

This questionnaire is designed as a tool for data collection for a PhD in Applied Linguistics entitled: Investigating Linguistic Problems Encountered by Sudanese Translators in Rendering Medical Discourse into Arabic

I would be grateful if you could respond to this questionnaire accurately. This questionnaire is used for academic purposes only.

**Tick {√} the option of your choice.**

**Hypothesis Three**

MA courses and materials do not enable MA students of translation to be good at translating medical texts into Arabic.

No	Statements	S t r o n g l y a g r e e	A g r e e	N e u t r a l	D i s a g r e e	S t r o n g l y d i s a g r e e
1.	MA courses do not include medical courses on bilingual translation					
2.	The specialized bilingual medical dictionaries and references are not available to MA students of translation.					

3	Libraries are not well equipped with medical books when looking for background information on a medical topic.					
4	Internet access which is useful for medical translation is not at hand.					
5	Medical textbooks are not available for MA translation students.					
7	Medical vocabulary and style are not integrated in MA courses.					

### Hypothesis Four

The translation of medical texts into Arabic creates a great challenge for MA students of translation.

	<b>Statement</b>	<b>S t r o n g l y a g r e e</b>	<b>A g r e e</b>	<b>N e u t r a l</b>	<b>D i s a g r e e</b>	<b>S t r o n g l y d i s a g</b>

						<b>r e e</b>
1.	MA students of translation are not familiar with techniques of rendering medical texts into Arabic.					
2.	Translation of medical texts poses several challenges to MA students of translation due to multiple Arabic equivalents to English medical terms.					
3.	MA students of translation lack the background knowledge of medical fields.					
4.	Medical terms which have no equivalents in Arabic are mainly borrowed from Latin and this makes it difficult to be translated.					
5.	Subject matter knowledge creates a challenge for teachers of translation and college staff.					
6.	Translating medical terminologies requires understanding of the medical texts.					

	Team work might be the best way to insure correctness of medical translation.					
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## Appendices (2)

### Test

This test is a part of PhD thesis. It is intended to collect data about translation of medical terms into Arabic.

Translate the following texts into Arabic focusing on the medical terminology in bold.

**Name:** \_\_\_\_\_ **Gender:**

\_\_\_\_\_

Translate the following texts into Arabic focusing on the medical terminology in bold.

#### Text A

**Breast cancer** can begin in different parts of the breast. A breast is made up of three main parts: **lobules**, **ducts**, and **connective tissue**. The lobules are the **glands** that produce milk. The ducts are tubes that carry milk to the **nipple**. The connective tissue (which consists of fibrous and fatty tissue) surrounds and holds everything together. Most breast cancers begin in the ducts or lobules. Breast cancer can spread outside the breast through **blood vessels** and **lymph vessels** when breast cancer spreads to other parts of the body.

#### Text B



The **COVID-19 pandemic**, also known as the **coronavirus pandemic**, is an ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute **respiratory syndrome** coronavirus 2 (SARS-CoV-2). The disease was first identified in December 2019 in Wuhan, China. The **World Health Organization** declared the outbreak a **Public Health Emergency** of International Concern on 30 January 2020 and a pandemic on 11 March. As of 12 September 2020, more than 28.6 million cases have been reported in more than 188 countries and territories, resulting in more than 917,000 deaths; more than 19.2 million people have **recovered**.

**Pelvic inflammatory disease (PID)** is an **infection** of the **female reproductive organs**. It most often occurs when **sexually transmitted bacteria** spread from your **vagina** to your **uterus, fallopian tubes** or **ovaries**.

The signs and symptoms of pelvic inflammatory disease can be **subtle** or **mild**. Some women don't experience any signs or symptoms. As a result, you might not realize you have it until you have trouble getting **pregnant** or you develop **chronic pelvic pain**.

### **Text C**

The **COVID-19 pandemic**, also known as the **coronavirus pandemic**, is an ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute **respiratory syndrome** coronavirus 2 (SARS-CoV-2). The disease was first identified in December 2019

in Wuhan, China. The **World Health Organization** declared the outbreak a **Public Health Emergency** of International Concern on 30 January 2020 and a pandemic on 11 March. As of 12 September 2020, more than 28.6 million cases have been reported in more than 188 countries and territories, resulting in more than 917,000 deaths; more than 19.2 million people have **recovered**.