People's Democratic Republic of Algeria

Ministry of Higher Education and Scientific Research

Ibn Khaldoun University –Tiaret

Faculty of Literature and Languages

Department of letters and Foreign Languages

English section

A Terminological Analysis on the Use of Recently Spread Medical and Pharmaceutical Terms in English and Their Equivalents Evolution in Arabic

A Dissertation Submitted

In Partial Fulfillment for the Requirements of the Master Degree in Linguistics

Submitted by: **Supervised by:**

Ms. Arabaoui Djamila   **Dr.** Fasla Allel Bilel

Ms. Aissou Hind

Board of Examiners

Chairman	Mr. Dekkiche Mohamed Amine	Université de Tiaret
Supervisor	Dr. Fasla Allel Bilel	Université de Tiaret
Examiner	Dr. Founes Oussama	Université de Tiaret

Academic year: 2020_2021

*D*edication

This work is dedicated to the first person who taught me the alphabet and educated me on the principles of life, my father. I love you.

To my mum, the adorable person in my life. the one who never stops helping, advising or even showing me what is right and wrong in life until the moments I'm writing these words. Thanks mum and dad, for everything.

I would like to dedicate this work to my brothers and sisters.

The dedication extends to all my family without exception.

My dedication goes to my mate in this research HIND with whom I shared both good memories and hard times.

*D*jamila.

*D*edication

I dedicate this humble work to my father's pure soul, to my role model, to the one who instilled in my heart the will, determination, love of seeking knowledge and good morals, may God have mercy on him and grant him peace in paradise.

I also dedicate it to the light of my eyes, the beloved of my heart, my mother, God give her long life and bless her.

I give the heartfelt thanks to my brothers, sisters and friends.

My best thanks to my soul mate Djamila for her patience sincerity and work.

Hind.

*A*cknowledgement

In the name of Allah, the most Compassionate and the most Merciful.

First and foremost, we would like to say thank you and praise be to you
Allah for helping us to complete this dissertation.

We would like to express our sincere gratitude and deepest appreciation to
our supervisor

Dr . Fasla Allel Bilel for his patience, support, precious advice and guidance
which he provided during the accomplishment of this work. Thank you for
everything.

Special thanks go to the jury members, Dr. Founes Oussama as an examiner
and   Mr. Dekkiche Mohamed Amine as chairman, for accepting to evaluate
this humble work.

We acknowledge our teachers in the department of English who taught us
during our studies career.

Abstract

Due to linguistic differences between languages, rendering new concepts embodied in new terms has always been a challenging issue in translation. English has become the medium of science and technology. Therefore, it has dominance over other languages in scientific and technical cognitive field. Medical terms and concepts are translated mainly from English to other languages such as Arabic in order to spread various specialized contents worldwide. To accomplish this goal, translation strategies, as well as the methods of generating terms such as derivation and composition are employed. The aim of this research is to identify strategies of translation that are directly concerned with terminological performances.

Accordingly, we established a descriptive and comparative analysis of twenty analyzed and discussed English pharmaceutical and medical terms with and their equivalents. These terms and their equivalents were subject to comparison between Arabterm; a technical dictionary which is issued by the Arab organization for Education, Culture with references to the Federal Ministries of Economic Cooperation and Development in the Federal Republic of Germany that adopted various translation strategies to introduce and assimilate these terms into Arabic. The experiment demonstrates unbalanced entries between COVID-19 dictionary and ARABTEM.

Keywords: Translation, terminology, arabization, medical terms, COVID-19.

List of Abbreviations and Acronyms

ALECSO: Arab League Educational Cultural Scientific Organization

AT: Arabterm   Technical Dictionary

CTT: Cmmunicative Theory of Terminology

DIC: Dictionary of Covid-19 Terms

FBT: Frame Based Terminology

ISA: International Standards Association

ISO: International Standardization Organization

SL: Source Language

ST: Source Text

TL: Target Language

TT: Target Text

List of tables

Table of contents

CHAPTER ONE:

The Interactions between Terminology and Translation

Part II: An Overview on Translation

Chapter two :

The Analysis of The Selected Terms

General Introduction

There is no doubt that language is the means of interaction and communication that characterizes humans, and has been reflecting people's thoughts and civilizations. Rather, it isa major component of identity, as it plays an important role transferring knowledge over the ages. By enabling cultural and intellectual exchange between various scientific communities, terminology occupies a central place in all languages, and terms are the key to the scientific language. In other words, Knowledge and scientific progress may not be effective, unless a given language relies on a terminological approach with a solid base that allows it to spread and absorb concepts. Terms are the nerves of the scientific language and the backbone of its procedural concepts.

Terms are one of the most important components of the scientific language, as they enable it to absorb novelties and innovations in the intellectual and scientific arena. The need for accurate and meaningful terms is constantly increasing to keep pace with development, especially in light of the current knowledge and technological revolution.

Multiple languages including arabic face major challenges in the field of terminology, as they receive a huge amount of new terms and concepts on a daily basis; this reality requires a continuous update and a quick reaction in generating the adequat equivalent terms in line with the terminological standards in a given cognitive field. The interest in translating scientific specialized texts has grown as the new information and communication tools play a paramount role in disseminating scientific and technical contents amongst scholars and academics. In that process, the interest in establishing terminology policies and rules shown by terminologists, lexicologists and translators has demonstrated the importance of such mechanisms within the framework of specialized languages, as it is inevitable that the translator uses the specialized language with its terminology, given that the terminology is the basic core of the specialized language. Therefore, the translator should master it in a way that allows him to confront these types of texts according to a specific and clear methodology. Terms have an important place in translation, and at the same time are one of the most important obstacles facing the translator when attempting to reach a correct translation that fulfills its communicative purpose. Accuracy in translating terms is an important factor in the success of specialized translationFrom a historical perspective, the results of a comparative study of languages shed light on the lexical and terminological achievements in the arabic language regarding the creation of terms or their arabization through methodological approaches concretized by the addition of multiple qualitative dictionaries and glossaries. It also triggers a learner's curiosity on the current projects conducted by the Arabic language institutions and organizations given their role in enriching the Arabic language and

transferring science and knowledge in various fields, such as the medical field. Humanity has been witnessing the spread of Covid-19 for more than a year putting the medical field and the pharmaceutical industry at the center of debates all around the world.

From a multilingual perspective, it has become necessary to pay attention to this field including the concepts, the ideas and the terms it carries in English and Arabic. That is. What led us to wonder about the essence of terminological performances and the possible interactions between terminology and translation. Based on these aspects, the idea of this research topic entitled "A Terminological Analysis on the Use of Recently Spread Medical and Pharmaceutical Terms in English and Their Equivalents Evolution in Arabic" came to be.

1. **Research Questions:**

1. What is Terminology?
2. What are the techniques and methods of generating a term?
3. What are the interactions between terminology and translation?
4. On what grounds can a learner choose a term instead of another one as an equivalent in Arabic?

2. **Research Hypotheses:**

1. Terminology is a group of words used to name things in a particular discipline.
2. The use of borrowing and transposition along with the principle of terminology theories add a new dimension for analysing translation issues.
3. There is overlap between terminology and translation, both aims to develop a new language material, and use language to express content.

3. **Research Objectives:**

3.1. **Subjective Purposes:**

The lexical and terminological achievements that demonstrate the importance of language during the rise of Islamic powers and during the spread of the arabic words in weste are invaluable resources that influenced other languages for centuries in mathematics, medicine and other scientific fields. However, the course of that influence is not the same in our era in terms of scientific innovation and thus, terminological prominence. That is why we focused our topic on terminology and translation.

3.2. Objective Purposes:

Because this topic is worth studying and most recent studies lack such topics that are based on terminology, which is an important science that aims at reaching a correct and accurate

translation, In addition, this topic concerns our daily life, wether academic or professional.

4. Research Method:

The study of this research is based on a quantitative content analysis; the examination of English medical and pharmaceutical terms and their equivalents in Arabic, by using Dictionary of Covid-19 Terms in comparison with Arabterm web platform.

5. Research process:

This dissertation contains a general introduction, two chapters, and a general conclusion. The first chapter is divided into two parts, the first part is an overview on terminology and its emergence according to several schools and theories, and the difference between general language and specialized language. The second part defines translation with its types, methods and techniques, including general and specialized translation and the methods of generating terms.

The second chapter is dedicated to results and data analysis.

6. Research Tools:

1. Glossary.
2. Arabterm Technical dictionary.

Chapter One

The Interactions between Terminology and Translation

Part I: An Overview on Terminology

I.1. Introduction:

Terminology is more than a technical or particular instance of general language. In today's society with its emphasis on science and technology, the way specialized knowledge concepts are named, structured, described, and translated has put terminology or the designation of specialized knowledge concepts in the limelight (Faber and C. Rodriguez, 2012). From an operational perspective, terminology is a science that studies specific terms which belong to a specific field, by using various strategies. Translation is one of them.

Translation as an interlingual and a civilized activity has always played a key role in achieving communication between peoples from different horizons and cultures. Therefore, transferring knowledge from one nation to another has become a necessity in terms of communication between communities of different languages to their abundant benefit and general goodness, where it conveyed accessible ideas, beliefs, innovations, and inventions. This transfer has contributed significantly to scientific and civilizational prosperity. As linguistic concepts multiply, as scientific research advances, it is necessary to allocate Lexicons that include scientific terms, according to the specific and scientific fields they belong to, and according to the needs of peoples, the content of the lexicons of a given group of people reveals the cultural level they have attained.

I.2. Definition of Terminology:

According to M.T Cabré, terminology is a methodological process of compiling, describing, processing and presenting the terms of special subject or field in one or more languages, terminology is not an end in itself, but addresses social communicational needs, and attempts to optimize communication among specialists and professionals by providing assistanceeither directly or to translators or to committees concerned with the standardization of a given language. This more pragmatic, applied view of terminology is more in line with to the requirements of contemporary society where epistemological reflections have given way to more pragmatic attitudes. Dealing with real communicative needs in the fastest and most effective way has replaced both thought about the principles behind terminological issues and about the ways to address these issues (Sager, 1990 as cited in, Cabré, 1999).

Terminology work focuses on the description of domain-specific knowledge structures and how they are transmitted in different communicative contexts. It also involves the organization and recording of the meaning and usage of terms in terminological resources

such as term bases, dictionaries and glossaries, which can be used for text decoding as well as for text generation.

According to KyoKageurav (2015, P. 45), the word "terminology" covers three meanings:

1. The set of practices and methods used for the collection, description and presentation of terms.

2. The set of premises, arguments and conclusions required for explaining the relationships between concepts and terms (in other words, the essence of the theory of terminology).

3. The vocabulary of a special subject field.

While, Sevilla Muñoz and Elena MacíasOtón, (n.d, p. 02). defined terminology as the science that studies and enables the compilation, description and presentation of terms, lexical elements used in specialized areas of knowledge (disciplines or branches of a discipline) and created in these areas or modified from the pre-existing elements in other.

– Compilation of terms: drawing up lists of terms of a discipline based on a pre-established methodology.

– Description of terms: definition or definitions of each term (from the semantic point of view) and description of the elements that constitute the term and its formation process (from a morphological point of view).

– Presentation of terms: dictionary development.

Terminology has common aspects with Lexicography, but differences in the nature of the considered lexical objects have led to the development of its own theories about the lexical elements of a language and based on these theories, which makes it possible to regard terminology as an independent science.

I.3. The Emergence and Development of Modern Terminology:

Modern terminology was initiated in the 1930s thanks to the Austrian Professor EugenWüster[1], in the publication of a book in 1931 entitled *"International Unification of Engineering Languages"*, especially electrical engineering, Wüster was initially interested in the terminological work to take care of the theoretical aspect later, as the terminology for him is the effective medicine to ensure communication between scholars and he mentioned this in his doctoral thesis, "International standardization of technical language", his work in the field

---

[1]EugenWüster: October, 10th 1898 – March, 29th 1977 was an industrialist and terminologist. Wüster was a professor at the university of Vienna and forged the international principles of terminology standardization and contributed significantly to the foundations of the modern information society. The influence of Wüster's terminology ideas has been enormous especially in the medical field, where it has also given rise to a critical reaction.

of terminology paved the way for the dawn of this modern science, after which scientists and linguistic researchers sensed the importance of terminology (Cabré,1999).

One of the pioneers of terminology is Edwin Holmstrom, a leading UNESCO expert. In 1971, with the cooperation of UNESCO and the Austrian Government, the International Information Centre for Terminology (INFOTERM) was established in Vienna, and the latter has directed efforts from the outset towards establishing an international terminology network called TERMINET, the objectives of this center are:

– The development of scientific research on terminology.

– One hand to cooperate in the preparation of terminology.

– Explore the possibilities of cooperation between the banks of terminology and automatically write them down. Information banks were widespread between 1960 and 1976, during which the science of the term developed a lot thanks to the development of computer science.

Maria Teresa Cabré (1999, p. 18-19), also identified four stages of the formation of a given term.

– The first phase extended from 1930 to 1960 and was marked by the emergence of the works of Wüster.

– The second phase lasted from 1960 to 1975, when information banks appeared.

– The third phase extended from 1975 to 1985.

Western countries have developed a language planning project and its importance in the modernization of language and society.

Finally, Maria sees the final stage from 1985 to the present and is marked by:

The terminological work and the extension of its development and complexity, in addition to the efforts made in laying the foundations for terminological research, we note that today the world has witnessed a significant development in the activities of terminological practice, and scientific progress in the exchange of information at the global level has made it necessary.

In addition, it seems necessary to shed light on the theoretical contribution of the schools of terminology; The Vienna school (Austrian school), The Soviet school, and The Czech school, all of which emerged from the work done by experts. As stated by M.T Cabré there are three approaches that these schools established:

– A first approach that considers terminology to be an interdisciplinary but autonomous subject at the service of scientific and technical disciplines.

– A second approach focusing on philosophy, which is primarily interested in the logical classification of concept systems and the organization of knowledge.

– A third approach focusing on linguistics, which considers terminology a subcomponent of a language's lexicon and special languages as a subsystem of general language.

The Vienna or Austrian School was born thanks to the work of EugenWüster who presented his thesis in 1931 on the international standardization of technical language with emphasis on electrical engineering, at the technical University of Berlin. His dissertation was the turning point for terminology as a science. The International Standards Association (ISA) created the widely-known committee (37) on terminology and while living in Austria he founded a private terminology research institute. The General Theory of Terminology was developed based on his thesis, and its principles and methodologies, the synchronic approach, the onomasiological approach, and the standardization of terms gave rise to what we know today as the Vienna School.

The Prague School this terminological school emerged or based from the Prague Functional Linguistic School, which established its linguistic theories about the works of the swiss linguist Ferdinand de saussure, founder of modern linguistics and this school considers terminology as a part of the general language, and is interested in the structure and the function of special languages, and one of the most important pioneers of this school is "Drodz" The Prague School and its pioneers have made their interests focused on terminology at the national and international levels, as well as the assertion of the specifics of the terminological and natural unity of the relationship between concept and label.

The Russian School was founded by two Russian engineers: a former Soviet Academy member, Caplygin, and the terminologist Lotte. This school pursues an objective approach that interested in the, as well as matching between the concept and the term, and assigning terms to concepts. This school was influenced by the Vienna School in terms of the need to standardize terminology. This school adopts terminological applications instead of lexical applications; it was concerned with standardizing concepts and terms because of the problems associated with multilingualism in the former Soviet Union.

I.4. Terminological Theories:

Pamela Faber sees that, Terminology theories can be classified as either prescriptive or descriptive, General Terminology Theory, which is considered as the first theory of terminology and we will see, the theories which later arose as a reaction to the general terminology theory.

I.4.1. General Theory:

General or classical theory is a terminological theory that Wüster developed in Vienna at the beginning of the third decade of the 20th century. A general theory of terminology is based upon the first approach in which the nature of concepts, conceptual relations, the relationships between terms and concepts and assigning terms to concepts are of prime importance (Cabré, 1999, p.20). This emphasis on transitioning from concepts to terms separates terminology approaches from those used in lexicography.

One of the basic assertions of General Terminology Theory is that terms in specialized language are inherently different from general language words because of the monogenic reference between terms and concepts (Wüster 1979, Feebler 1984, as cited in Faber, Rodriguez, 2012, p. 07). The General Terminology Theory claims that terms in specialized languages are distinct from words in general languages, the definition of a specialized language unit is based on the concept of form and content. The term may be recognized from a general language word by its single meaning relationship with the specialized idea it denotes, as well as the consistency of the link between form and content. Cabré (2003) mentioned the main objectives of Wüster:

• To eliminate ambiguity from technical languages by means of standardization of terminology in order to make them efficient tools of communication.

• To convince all users of technical languages of the benefits of standardized terminology.

• To establish terminology as a discipline for all practical purposes and to give it the status of a science.

This traditional theory says that Terminology should study concepts independently before deciding on the ideal terms to name the concepts.

As Cabré stated, Wüster regarded terminology to be a separate topic concerned with the link between the sciences such as (physics, chemistry, medicine), and a combination of other disciplines such as (linguistics, logic, and ontology).

I.4.2. Communicative Theory of Terminology:

The CTT[2] is a descriptive approach that studies terms and their variants as they appear in texts, and envisages the multiple dimensions of specialized knowledge units, as well as

---

[2]CTT : Communicative Theory of Terminology.

their representation and analysis (Faber and Martinez, 2019, p. 06).This theory begins with M.T. Cabré, who formulated the communicative theory of terminology to (CTT).

Cabré (1999, p. 23) brought together a series of reflections that are the foundation of the Communicative Theory of Terminology or the (CTT) is mainly characterized by a linguistic approach to gathering concepts, such as terminological variation, harmonization, term usage in texts, terminological application design, linguistic engineering for terminology work and research. The CTT requires linguistic variation to be contemplated from the theoretical and methodological points of view. It is an interdisciplinary approach enriched by the theory of knowledge, theory of communication, and theory of language. It stems from the insufficiencies of the General Theory of Terminology and is still in a developmental stage. Finally, it assumes that communication is not uniform because there is nominative and conceptual variation.

The CTT principles can be summarized as follows (Cabré, 1999, p.122-124). Terminology is an interdiscipline, which enriches itself from the theory of knowledge, the theory of communication and the theory of language. The objects of study are the terminological units themselves, which are part of natural language. Terms are lexical units that are activated by their pragmatic conditions of adjustment to a given type of communication. They are also units of form and content in which the content is simultaneous to the form. Concepts in a given specialized area maintain different types of relationships with each other. The value of a term is established by the place it occupies in the conceptual structure of a given field according to the criteria established in a terminology project. The objective of theoretical terminology is to provide formal, semantic and functional descriptions of units that can acquire terminological value and the objective of applied terminology is to compile the units of terminological value. Lastly, the purposes for which units with terminological value that are used in a field are compiled and analyzed are very diverse and allow many applications.

I.4.3. Sociocognitive Terminology:

Sociocognitive Terminology is an approach to Terminology. It was developed by Temmerman (2000), and has a major impact on the field of Terminology theory.

With the introduction of Sociocognitive Terminology, suggested by Temmerman (1997, 2000, as cited in Faber, 2012, p. 12), insights from Cognitive Semantics (e.g., prototype structure and metaphor) began to have an influence on Terminology theory.

Temmerman (2000, p. 33) criticized General Terminology Theory, and provided some examples from the life sciences to show that it is unrealistic and of defining or explaining specialized language as it is used in communication contexts such as specialized translation, Temmerman challenged the following Wüsterian principles:

- Terminology starts from the concept without considering language.

- A concept is clear-cut and can be assigned a place in a logically or ontologically structured concept system.

- A concept is ideally defined in an intensional definition.

- A concept is referred to by one term and one term only designates one concept.

- The assignment concept/ term is permanent.

Temmerman contends that these premises are not valid and confirmed that:

- Language plays a role in the conception and communication of categories.

- Many categories are fuzzy and cannot be absolutely classified by logical and ontological means.

- An intensional definition is often neither possible nor desirable.

- Polysemy, synonymy and figurative language occur and are functional in a special language.

- Categories evolve, terms change in meaning, understanding develops.

This statement of ideas serves as the foundation for Socio Cognitive Terminology. This theory is also compatible with Gaudin'sSocioterminology and Cabré's Communicative Theory of Terminology since it is descriptive rather than prescriptive, and it considers words to be the beginning point for terminological study.

One of the most interesting aspects of Sociocognitive Terminology is its emphasis on the study of terms and concepts from a diachronic viewpoint in contrast to the General Terminology Theory which deals with synchronic analysis, as Faber and Rodriguize (2012, p.13) states; "Sociocognitive Terminology is perhaps the first and only approach to truly take on board the historical or diachronic dimension of terms".

What distinguishes Sociocognitive Terminology from other theories is that it focuses on conceptual organization, and its emphasis on category structure from the perspective of Cognitive Linguistics. However, in the General Terminology Theory, concept systems are structured in terms of type of and part of conceptual connections, whereas sociocognitive

categories are considered to have prototype structure, and conceptual representations begin as cognitive models.

I.4.4. Frame-based Terminology:

Frame-Based Terminology (FBT) is acognitive approach to terminology developed by Pamela Faber and colleagues at the University of Granada, Frame-based Terminology uses a modified version of Fillmore's Frames, which is initially stem from Fillmore.(FBT) is based on frame-like representations in the form of conceptual templates underlying the knowledge encoded in specialized texts (Faber, Rodriguez, 2012, p. 03).

According to Faber and Martinez (2019, p. 07) this theory focuses on:

1. Conceptual organization.

2. The multidimensional nature of terminology units.

3. Extract semantic and syntactic information through the use of multilingual corpora.

FBT frames can be regarded as situated knowledge structures, with lexical relations codified in terminographic definitions reflecting them linguistically. These frames provide the context for FBT to specify the semantic, syntactic, and pragmatic behavior of specialized language units. They are founded on the followingthree micro-theories:

1. A semantic micro-theory focusing on term meaning.

2. A syntactic micro-theory deals with analysing term structure and collocations in specialized discourse.

3. a pragmatic micro-theory that explains cultural and contextual parameters of specialized communication.

P. Faber, P. León, J. Prieto (2009, p. 06) highlight that, The frame-based terminology technique develops the domain's conceptual system through an integrated top-down and bottom-up approach. The bottom-up method entails collecting information from a corpus of writings in multiple languages that are especially relevant to the subject. The top-down method incorporates information from specialist dictionaries and other reference materials, which is supplemented by the assistance of experts in the field.

I.4.5. Socioterminology:

This approach appeared in 1990'sas a reaction to the General Terminology Theory. Socioterminology, applies sociolinguistic principles to Terminology theory, and accounts for terminological variation by identifying term variants against the backdrop of different usage contexts as proposed by Gaudin (1993, as cited in Faber, 2009, p.07).

Variation parameters are based on social and ethnic factors, and communication among professionals and specialists can result in various terms for the same concept, as well as more than one concept for the same term. This theory is focused on how words are used in communication situations. It describes terminological units in real discourse and investigates the social and discourse conditions that give rise to various kinds of texts. Because it is based on how words are used.

Socioterminology deals with the circulation of the terms of their modification and also their appearance in the context within a certain sphere of activity. This science only widens its field of action and studies the terms and their circulation in a discursive context in particular.

Faber stated that, although Socioterminology does not seek independent theoretical status, its significance stems from the fact that it paved the way for other descriptive theories of Terminology, which also consider social and communicative factors and base their theoretical principles on how terms are actually used in specialized discourse.

I.5. Terminology as a Discipline:

Terminology aims at offering effective linguistic solutions. It is also acting as a link in a crossroad between other disciplines and sciences. As discussed, terminology covers a wide range of purposes related to the use of terms in a specific area. Also, terminology emerged because of the growing need to facilitate specialized communication and translation, as well as knowledge transfer between text users belonging to different language communities and with similar knowledge levels. The theoretical proposals in this field have been mostly practice-based, and focus on the elaboration of glossaries, specialized dictionaries as well as terminological and translation resources (Faber and C. Rodriguez, 2012).

Terminology is a young profession with a bright future ahead of it as said by Gelinas-Surprenant and Hussman (2015). According to the traditional approach of terminology the purpose of terms is fixing the relationship between term and concept to facilitate communication. Lynne Bowker defined Terminology as a discipline that deals with the collection, processing, description and presentation of terms which are lexical items belonging to a specialized subject field (e.g. medicine, law, engineering, library science or art history) (Gelinas-Surprenant and Hussman, 2015). Marcel Thelen and Frieda Steurs elaborated the vastness of terminology, its effect and importance saying that "terminology affects more than just translation", because its effects are multidimensional and multicultural due to which modern countries update their language and translation policies to meet the new demands of globalized society as translating a bio-energy, or diabetes or interpretation at an International

Court of Justice, in which correct communication is not possible without a clear concept of terminology (Gelinas-Surprenant and Hussman, 2015).

To sum up, the practical aspect of terminology involves meeting a communicational needs in a specific area, and suggesting accurate linguistic solutions to onomasiological issues, but also to equivalence issues when interlingual specialized communication is required.

I.6. Terminography:

According to (M.T. Cabré, 1999, P. 115), Terminography involves gathering, systematizing, and presenting terms from a specific branch of knowledge or human activity. The relationship of lexicology to lexicography is parallel to that which exists between terminology and terminography, the application of terminology that deals with special language dictionaries.

Even though it is practical in nature, terminography is not an independent activity that individual specialists can deal with on their own but is governed by a series of technical, formal, and procedural recommendations that have been internationally agreed.

Carolina Popp mentions that terminography is the practical side of terminology. It compiles, classifies and properly organizes nomenclatures which are terms sets of a particular field. It is a practical discipline of applied science based on theoretical foundation (Popp, 2001). Its objectives and aims being a practical activity, as Carolina suggested, are to solve problems of communication, Carolina backed terminography to Plato and Aristotelian age having special place in the archaeology of knowledge (Popp, 2001).

There are authors who distinguish between Terminology and Terminography (in a parallel way to the distinction made between Lexicology and Lexicography), so Terminography is the technique of composing "terminologies" with the meaning of "specialized dictionaries", which would coincide with the second previously commented. So, for these authors, the word Terminology would include the theoretical component and the result of applying terminology theory and practice (M.S. Munoz, E.M. Otón, n.d, p. 02). Terminography must not be confused with translation. Translators need specific terminology for specialized texts, but this does not imply that they themselves must develop the terminology, nor that they have to deal with all the terms in the special subject field in question. Working in terminology does not mean translating a term from one language into another based on supposedly equivalent designations, but gathering the designations that users of a language use to refer to a concept and ultimately, if necessary, proposing alternatives in those cases where speakers' designations are unsatisfactory. While translators are not terminographers, in daily practice

the distinction between these two groups of professionals is often blurred. Terms for a special language glossary must be collected from real texts, and not invented or created by terminologists (Cabré, 1999, p. 115). In addition terminography is guided by the facts that terms are indivisible units with form and content; that the form and content of terms tends towards an unambiguous relationship; that terms have a fixed place within a specific conceptual field, without which reference the term has no specific meaning; and that concepts are related to other concepts in the specific field they together constitute.

In an attempt to harmonize work in terminography and to make it easier to transfer knowledge and data, terminography is also guided by recommendations made by international committees like TC 37 of the ISO. There are guidelines, published as standards, for unifying designations and concepts in terminological theory and practice, and for the methods to be applied for the presentation of terms and their respective data (Cabré, 1999).

I.7. Difference between Word and Term:

The term is a linguistic symbol which is assigned to one or more concepts, which are defined from neighboring concepts. It can be a word or a word group (Felber, 1984) While there are ambiguities, we can reasonably say that a "word" is a linguistic concept, i.e. a linguistic unit established in what Lyons (1981, 34–36) called "theoretical micro linguistics" and is essentially defined as a specific syntagmatic unit which is located within the hierarchy of linguistic units, i.e. morpheme, word, phrase, clause (Lyons 1968, p. 170–171).

Besse and Sager define "term" and "terminology" as follows: "A term a lexical unit consisting of one or more than one word which represents a concept inside a domain", while terminology as "the vocabulary of a subject field". It is unfortunate that in the definition of term, the authors use "word" instead of "lexical item" since the whole purpose of a glossary of terminology, "word" is used as equivalent to "lexical item", in which case terms are a subset of words. In other sense, word and term are used in mutually exclusive sense "term" refers to an individual item and "terminology" refers to the collective object, in accordance with the distinction between lexical unit and vocabulary. word and term are used in a mutually exclusive sense. Thus, "term" refers to an individual item and "terminology" refers to the collective object, in accordance with the distinction between lexical unit and vocabulary.

Terms are types of words: all terms are words or made up of words, but not all words are terms. Specifically, a term is a word that is typically used in a specialized field. For example,

'sternum' is the medical term for the bone at the front of the ribcage. This is specially found in medicine and other sciences.

A word can be defined as a complete meaningful element of a language. Words are made up of morphemes that are the smallest elements of a language. Unlike morphemes that may or may not be able to stand alone, words can always make sense even in isolation. When a number of words are put together, they create a sentence. However, we must pay attention to the grammatical rules that apply to language when creating sentences.

A term can simply be understood as a word. All terms are words, but not all words are terms, term is a particular definition of a word, which is applicable to a special situation. For example, in disciplines such as sociology, psychology, biology, geography, there are terms that convey a unique meaning to the user. A term can be used to express an idea, an abstract thought, an object, a concept, etc. A term always represents something.

Most of us consider a word as something that is used to represent something else such as a chair or a book. However, a linguistic may have a completely different definition for a word. It may consider as the smallest meaningful element of a language. A sociolinguistic may define it as the relationship between the signifier and the signified. This highlights that a term and a word are very different from one another.

Words can be spoken or else written. These always carry a meaning that is understood by the majority, making the meaning almost universal to the speaker. However, a term does not always carry the same meaning. Most terms are also words. This can be a single word or else a combination of words. When we say culture, value, crime, girl, animal, all these words have a universal meaning to the reader. However, a term does not have this characteristic. It has a special meaning in a specific context.

To summarize, we can state that:

− A word can be defined as a completely meaningful element of a language.

− A term is a particular definition of a word, which is applicable to a specific situation.

− All terms are words, but not all words are terms.

− Words have a universal meaning to the speaker of that particular language.

− A term does not have a universal meaning. It has a special meaning in a specific situation.

− A word can be transformed into a term when used in a discipline to refer to a specific object or situation.

I.8. General Language:

General Language deals with language in a broad sense and with English in particular. It is more than an exploratory course, with a definite surrender value, helping students to use language more effectively, to think and to express thought more clearly, and to read and interpret more accurately. It motivates and supplements foreign language study. It correlates with social studies, music, art, and the sciences. (Lindquist, May, 1940, p. 563, 567). That means that the general language is quite simple, anyone can understand and use it easily. It is not structurally complex. On the other hand, it is widely used for pedagogical understanding and acquiring knowledge. For example, if the teacher introduces the basics of some accurate concepts to the student, he might have to use a general language as recourse to define and explain the complexity of the concepts. Once the understanding phase is over, the teacher may introduce the accurate term and its use in one or many languages.

The general language is used by people in their daily life in order to facilitate communication with each other. As M.T Cabré (1998, p. 121). Highlights that the general language is that non-specialized language,and it is a daily used language by all the people to which it belongs and it is not intended as it is in the case before it enters into use any set of abstract systems.

To sum up, the study of any language leads to establishing a comparison between its general language that concerns a general use, and its specialized languages. These two diverse languages within the language itself aim at an operational communication. However, the terms that belong to a given language are special lexical units used in a specific framework within the specialized language. The use of these terms involves in most cases an expert to expert communication need while the general language doesn't.

I.9. Specialized Language:

The concept of "specialized language" refers to the language used in a specific field or relevant to and characteristic of an industry. Specialized language is also intended to mean one that differs from the general language by specialized expressions and specific terminology. Specialized languages, together with the spoken language, dialects and regional variants, constitute the countrywide language of a nation. (Popover, p. 69).

Specialized languages are always associated with the common or general. The specialized languages contain characteristic words and expressions, as well as outside words (loanwords) internationalisms fundamentally from the particular terminology This language is nearly unusable out of its planning field, or person words from it may have a totally distinctive meaning within the colloquial language. The totality of all terms constitutes its terminology.

Specialized language has a place to the standardized language variants. They too perform the function of written and spoken languages among specialists from the respective field, in any case the previously mentioned standardization recognizes them from other non-standardized languages of populace bunches in numerous locales and from the colloquial language. Popova highlights that "Each term used in a certain specialized language is called Terminus technicus. This later is a Latin word which means technical terms.

The specific languages utilized in different scientific fields, are changing moreover since of the progressively developing number of remote words leaking into it, generally from the English language. Specialized terms can be found in lexicons compiled particularly for a specific field (financial, therapeutic, law, etc.). The distinctive sorts of lexicons contain either a direct interpretation, or incorporate clarification and translations of the terms. Specialized languages are a subset of the general language and share with them most of the characteristics, although they are different they share a lot of elements both of which are not an isolated phenomenon and both have a connective function that tile complementary functions. Terminology thus constitutes an important part of specialized language.

Term formation in specialized language usually requires a significant contribution from experts in different disciplines. One must not only understand the scientific concepts thoroughly, but also be familiar with the tradition of term formation in the discipline and the methods and norms of word formation in the language. (Pitkanen, 2008 as cited in, Hacken and Thomas, 2013, p. 66). Forming a term in a specialized language deserves a great importance, because the experts are obliged to form these terms which belong to various disciplines and put them in specific lexicons not only the scientific terms, but also various other fields and disciplines like Law, finance, medicine, etc. Therefore, Translators and experts in various areas should be familiar with the tradition of term formation in the specialized language. Terminology is closely linked to specialized translation since the adequacy of the terminology used in a text as well as its suitability for the knowledge level of text receivers is one of the factors that determine translation quality.

	Popularsenses	Technicalsenses
general English	1. A wide range of general interest topics of general knowledge, such as sport, hobbies etc. Suggested term: general topics English.	2. Basic English, of all kinds, from pronunciation, through vocabulary, to discourse patterns such as those used in a newspaper. Suggested terms: foundational English basic English.
specialized English	3. A wide range of topics within the framework of a given specialty such as medicine, economics and biology. Suggested term: specialized topics English	4. Advanced English, the fine points, and the vocabulary and discourse patterns specific to the discipline. Suggestedterm: technical English advanced English

Table n°1: The different senses

of 'general' and 'specialized' English.

I.10. The Relationship between Terminology, Lexicology, Lexicography, and Etymology:

From a linguistic perspective, terminology is a part of lexicology; the first simply put as a study of words, while the latter only deals with words connected with a specialized field or professional activity. Such words are called terms and they are mostly nouns used by professionals in a scientific or technological discourse on a specialized topic. The material of lexicology can be found in dictionaries, where they are presented in a way that facilitates their practical use. In contrast with that, terms are collected in specialized dictionaries, thesauri or lexicons. In these, terms are collected to present various concepts that belong to a specialized field. Writing, producing, and editing lexicons and dictionaries, that is why it is called lexicography.

Terminology and lexicology both aim at collecting data about the vocabulary employed by different users. The functions of the terminographer differ from that of the lexicographer,

thus, lexical units and terminological units are not analysed nor treated following the same process and vice-versa.

Linguists distinguish between lexicology, which studies the phonetic, morphological, semantic and stylistic aspects, and between the lexicon industry that is interested in collecting data, selecting entries, and publishing the final work as lexicography in a given dictionary. In order to generate the equivalent of a term in the TL we must look for its origin in SL. This process is closely related to etymology, which is a science that studies the origins of words.

I.10.1. Lexicology:

According to the Merriam Webster Dictionary, the term lexicology is defined as a branch of linguistics concerned with the signification and application of words. Etymologically, it originates from the Greek word lexicons or lexis: of word, and the word logia: to study, putting things clear, one can say that lexicology is a branch that analyses the stock of words or lexicon in a given language. Since lexicology focuses on 'words', it is related to different fields that study the same matter, such as morphology, semantics, and etymology. Further, another definition was provided by McArthur (1992) "lexicology is an area of language study concerned with the nature, meaning, history and use of words and word elements and often also with the critical description of lexicography" (p. 602), this definition covers different schemes to the study of lexicon, in which it incorporated etymology as in 'history', and semantics in 'meaning'.

T. Cabré (1999) argues that the lexicon is one of the most crucial components in any language, for that it covers "words of the language and the rules accounting for a speaker's creativity" (p. 29).

She also added,lexicology that is the systematic study of words, was neglected and marginalized, for that it was considered as too irregular and systematic. However, latest studies proved that lexicology is as important and systematic as other scientific disciplines; hence, it is nowadays studied from the viewpoint of its regularities.

I.10.2. Lexicography:

In his article "definition and example of lexicography", Nordquist (2019) defines lexicography as: "the process of writing, editing, and/or compiling a dictionary, an author or editor of a dictionary is called lexicographer" (p. 01).

lexicography is a linguistics material concerned with writing dictionaries and lexicons by collecting ,classifying and defining their content of words which are summarized repulsive articles in the form of a side heading .This section is also concerned with the illustrated

explanation ,through examples and expressions of the word, to clarify the meanings and connotation.

So, lexicology and lexicography are two different concepts, yet they are tightly anchored to one another.

I.10.3. Etymology:

Malkiel (1994) thinks that "Etymology traces the history of a word from one language to another as far back as can be determined with reasonable certainty" (p.504), which means that, etymology studies the origin of words and try to trace back their meaning from the first appearance. He also mentions that etymology is a branch of linguistics, in which scientific strategies and approaches are necessary in the analysis of the etymological processes. Other modern linguists –who argued that etymology cannot be as scientific as other branches of linguistics like phonology and syntax, and is more likely to be artistic, Malkiel (1958), as a rebuttal to their claims, argues that these critics contend, first, the element of haphazardness found in their discoveries; and second, the fact that their researches and working habits suggest an art rather than a science (p.201).

In addition, Malkiel (1962) confirms that "Like all lexical sub-disciplines, etymology is concerned with form and with meaning and, through the latter, also with the outer world of realities" (p.200), , this latter presents an effective counterargument, in which etymology is as concerned as other lexical sub-disciplines with form and meaning in a synchronic way of study.

Philip Durkin (2009), argues that etymology is the investigation of word histories, in which he stresses out the point that this branch focuses on words that their histories are not to be certain. That is to say, etymology studies words with uncertain history, and thus, a hypothesis must be constructed to make the distinction between the correct word origin and a particular stage in its history (p.1). He adds, the term 'etymology' is also used more broadly for the description of the entire endeavor which attempts to give a coherent account of a word's history (or prehistory) (p.1). Moreover, Durkin (2009, p. 2) asserts that etymology belongs to the broader field of historical linguistics. This latter works at explaining how and why languages develop and change. Yet, it is not constrained with particular linguistic level as other branches like, historical phonology, historical morphology, historical semantics, and historical syntax.

Part II : An Overview on Translation

II.1. Definition of Translation:

The English term translation, first attested in around 1340 derives either from Old French translation or more directly from the Latin translation ('transporting'), itself coming from the participle of the verb transferred ('to carry over'). In the field of languages, translation today has several meanings:

(1) The general subject field or phenomenon ('I studied translation at university')

(2) The product: that is the text that has been translated from a source language ('they published the Arabic translation of the report')

(3) The process of producing the translation, otherwise known as translating ('translation service'). (Rolle, 1310-1340, as cited in Munday, 2016, p. 08).

Translation is the process of deciphering the symbols of one language from one language and transferring them to another language. It is based on two interrelated elements: the idea involved in the words in the target language, meaning the meaning of the words, and the form of words in the source and target languages, and is represented in the composition of sentences and variants of eloquence and rhetoric of three convergences, contradiction and parallel, and are abed by the rules of the language. And because translation is the basis of intercultural communication, and the cognitive carrier of the cultural, scientific and technological achievements of the era, it contributed a great deal to the development of medical sciences with the Arab civilization in the past and in the west recently, because they relied on the translation of old medical books of different civilizations in the development of this field of science.

Munday (2016,p.08.) highlights that the process of translation between two different written languages involves the changing of an original written text (the source text or ST) in the original verbal language (the source language or SL) into a written text (the target text or TT) in a different verbal language (the target language or TL):

Source text (ST) ⎯⎯⎯⎯⎯⎯⟶ Target text (TT) in source

In source Language (SL)   In target language (TL)
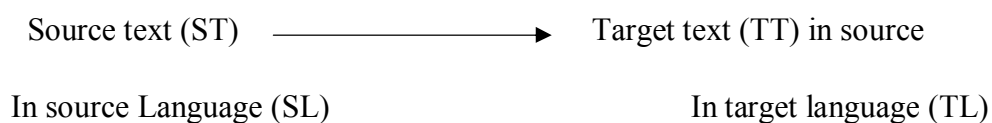
II.2. General Translation:

Cabré (1998, p.115) says that «Every language has a set of units and rules that all the speakers of it know. This set of rules ,units and restrictions that are part the knowledge of the majority of speakers of language constitutes what is called the language common or general" (our Trans).

General translation is a translation that is done on general linguistic and non-linguistic materials, i.e. it is not related to a subject or a field that requires a special knowledge or reference to carry it out.General translation is about what's rolling daily among society like press articles, recipes, biographies.

General translations mean: translations for which the translator doesn't need extensive knowledge or experience of a specific specialist area. These include, for example, news articles, travelogues, private or business letters and job applications. But we also select the most suitable translators for general translations; translators who have translated for the customer before, or who have a special preference for specific assignments.

II.3. Specialized translation:

According to Faber and Martinez (2019, Chap14, p.22)"Terminology has become an increasingly important part of the specialized translation process"
In order to understand the specialized text that is to be translated, and write the translation, the translator must acquire somewhat advanced or even highly advanced concepts of the relevant field through documentary research and practice. However, the level of understanding required to translate, law, politics, medicine and mass media...as well as lesser researched areas such as maritime navigation specialized texts is considerably less than the level possessed by practitioners of the field in question. Sometimes even experienced translators must consult practitioners when their knowledge falls short.
Maurizio (2006,p.06) highlights that specialized translation covers the specialist subject fields falling under non-literary translation, the best known of which include science and technology, economics, marketing and archaeology .

II.4. Does specialized translation different from general translation?

Amarasinghe (2020) says that it was found through the research that specialized translation does improve the content, completeness and the time spent on a translation when compared to general translation, but there was no significant difference in terms of grammar accuracy. Hence, it was crystal clear that specialized translation had a positive impact on the translation performance in comparison to

general translation. The study specifically revealed that the efficiency and the accuracy of translation were hugely improved by the use of specialized translators.

As described by Daniel Gouadec (2007) "specialized translation can be defined as the translation of materials which refer to a highly specialized field or domain targeted at a particular audience or public through specific dissemination channels and/or are used by specialists in specific circumstances", while "General translation refers to the translation of documents and materials that do not belong to any specific type or domain area, do not belong to any particular type, do not entail a specific translation process or the use of equipment beyond an ordinary computer and word processor. It therefore covers a relatively wide range of materials such as letters, biographies, monographs, treatises,recipe books, tourist brochures, tourist guides, press articles (in newspapers or magazines), postcard legends, company presentations, user guides, etc. In fact, general translation is all that remains after all specialization areas have been listed."

What differentiates specialized translation from general translation is the terminological and technical difficulty level. The general translation is the simpler of two types and does not involve jargon or lingo, and thus targets a general audience without excluding a specific audience.

In contrast to general translation, specialized translation calls for expert knowledge in specified fields and may include complex terminology in the text. Consequently, it requires higher language proficiency, as well as knowledge and expertise in the subject. Furthermore, the etymology of these special phrases or terms may vary from one language to another, or even between dialects of the same language, thus involving additional research for accuracy and appropriateness.

II.5. Translation Strategies:

In the late 1950s, two French scholars named Jean-Paul Vinay and Jean Darbelnet explored the linguistic and stylistic aspects of translation, when looking at their work, the term contrastive linguistics seems much more appropriate, as they looked at the differences between two languages in order to enhance their understanding of both of them. While other scholars sought to merely compare two languages in order to inform the relationship between them, Vinay and Darbelnet looked at the process of translation.

Their efforts culminated in a central work in the linguistics and translation studies, "Stylistiquecomparée du français et de l'anglais: méthode de traduction", which around four decades later was translated into an English version, Comparative stylistics of

French and English: a methodology for translation. The fact that it was still worth translating into English nearly half a century later shows how important it was. In the book, Vinay and Darbelnet (1958/2000) classified translation procuders into two types, direct and oblique:

II.5.1.Direct Translation Techniques:

Vinay and Darbelnet (1958/2000) note that due to structural and metalinguistic differences between languages certain stylistic effects are unattainable without upsetting the lexis or the syntactic order in the target language. In such cases more complex methods must be employed to convey the meaning of the source text. Although at a cursory glance they might look fairly sophisticated, or even unusual, the oblique translation proceduresallow translators to exert a strict control over the reliability of their efforts.

Direct translation techniques are used when there are conceptual elements that can be transposed into the target language. Classified those techniques as follows:

1. Borrowing.

2. Calque.

3. Literal translation.

II.5.1.1. Borrowing:

Vinay and Darbelnet (1958/2000) defines borrowing as the idea of taking the word from the source language (SL) and maintaining it in the target language (TL). It is considered the simplest of the procedures and tends to be employed in two situations: either when discussing a new technical process for which no term exists within the TL, or when maintaining a word from the SL for stylistic effect, in which the translator uses the foreign term to add flavor to the target text (TT).

As the attempt to take words from one language and put them in another language alphabet. These words are naturalized to suit the grammar and the pronunciation of the target language. Eventually these words become part of the lexicon system of the target language as in Arabic language. For example:

1. coronavirus كورونا فايرس

2. Chloroquine كلوروكين

Also the English language has borrowed numerous words from different languages. For

✎Example:

1. Résumé and café passé from French

2. Kindergarten and hamburger from German

II.5.1.2. Calque:

A calque is when an expression from the source text (ST) is transferred literally into the TT. Calques either follow the syntax of the TL while translating each word literally or ignore the syntax of the TL and maintain the syntax of the SL, rendering the calque in an awkward syntactical structure in the TT. So it is to translate a phrase borrowedfrom another language literary, preserving the source language structure and the manner of expression which may not be familiar to the target language. For example, *champions'league*, *week-end* and *cool* are new borrowed expression used in French and Arabic. For example:

  - 1. artificial respiration   تنفس اصطناعي
  - 2 .dry cough سعال جاف

II.5.1.3. Literal Translation:

The third translation method is only to be used under certain circumstances according to Vinay and Darbelnet. The idea of translating word for word in a way that does not alter the meaning is considered an acceptable use of literal translation by the two scholars. Literal translation, put simply, expands the scope of a calque but in a much more acceptable way.

Literal translation is to translate from the source language into the target language andto preserve the same effect and wording of the source text, only the language is changed. In literal translation, changes which may affect the source text structures are not allowed. This method usually works with languages from the same family as the following example shows.

1. J'aiparlé au parlementhier→ I gave a speech in the parliament yesterday.

II.5.2. Oblique Translation Techniques:

As for oblique,   these techniques are used when the translator cannot translate elements from the source language without adjusting or changing the meaning, the grammatical and stylistic elements of the target language. Oblique translation includes:

1. Transposition.

2. Modulation.

3. Reformulation or equivalence.

4. Adaptation.

II.5.2.1. Transposition:

Vinay and Darbelnet referred to transposition as changing word class without changing meaning. This refers to when translators (often without thinking) change the word type, such as from nouns to verbs. Vinay and Darbelnet considered transposition to be either obligatory

or optional, and referred to the ST as the base expression and the TT as the transposed expression.

✎Example:

Face shield   ⟶   واقي الوجه

II.5.2.2. Modulation:

Modulation is a type of translation where the translator adds changes to the grammatical and semantic structure of the source language to suit the target language without affecting the meaning, because it has to convey the same idea of the source text, and yet it should not carry awkwardness to the reader of the target text. According to, Vinay and Darbelnet (1958) distinguished between two major types of modulation, recorded modulation, also called standard modulation, and free modulation.

Recorded modulation is usually used in bilingual dictionaries. Thus, it is a ready type to use. The elements translated by standard modulation are fixed, it is obligatory to keep them as they are. For example:

1. It is easy to understand   ⟶   من السهل أن أفهم

It does not suit the Arabic language, and stylistically inappropriate to translate it as,

(من الصعب ألا أفهم).

Free modulation is considered to be more practical, because it has many possibilities to change the expression of the source language to suit the target language, for instance, translators can change the negative form into the positive form. For example:

1. It is difficult ⟶ Cen'est pas facile

II.5.2.3. Equivalence:

The idea of equivalence can be simultaneously simple and complex in Translation Studies. Vinay and Darbelnet explain equivalence as something almost inherently cultural, using the example of someone expressing pain. In English the term "ouch!" is used, while in French, a literal rendering of the sound would be of no use to the reader. Instead, the equivalent of "ouch!" in French is "aïe!". Both words would immediately indicate to readers that there is some level of pain involved.

So this technique requires the translator to be creative, especially in the case of translating idioms, proverbs, or slogans of advertising. This process allows the translator to reduce or expand the number of words, but not to drop crucial information. It is also used to make implicit expressions in the source language explicit in the target language. For example:

1. Give the devil his due → اعط كل ذي حق حقه

2. A hungry man is an angry man → كاد الفقر ان يكون كفرا

II.5.2.4. Adaptation:

The most complex of Vinay and Darbelnet's translation procedures is the final one, adaptation. Adaptation is similar to equivalence in the way that the translator seeks to render the SL into the TL whilst ensuring it is just as relevant and meaningful as the original was. Imagine the ST mentioned something that was so undeniably *English* that translating it into French would have absolutely no meaning, or vice-versa. At that point the translator must use adaptation. A brilliant example of this is the term" banlieue", which can be a bit of a double-edged sword when translating into English. While the suburbs of French cities can be rich or poor, the term has been increasingly used to describe run-down areas of cities with low income housing, which is not the idea that springs to mind when the English hear the term *suburbs*. In this case, a translator would be forgiven for translating banlieue as council estate (UK English) or even the projects (US English).

In this type, the translator attempts to make textual materials that are specific to a given language culturally appropriate to another language.

II.6. The Importance of Translation in Terminology:

According to Cabré (2004), both Translation and Terminology stem from practical activities performed in response to information and communicative needs. Both activities are similar in that they are interdisciplinary, and are also convergence points for linguistic, cognitive and communication sciences (Cabré 2000).

Terminology is closely linked to specialized translation since the adequateterminology used in a text as well as its suitability for the knowledge level of text receivers are among the factors that determine translation quality.

When translators read and process a specialized text, the semantic and syntactic complexity generally resides in the terms and terminological phrases. It is thus necessary to be able to identify the terms in the text and examine them in context. In the translation process, term identification is previous to term extraction. Both involve selecting terms from the source language text not only to analyse and translate them, but also to manage and build a terminology for a specific domain. Most translators either do this work manually or use term-extraction applications with their respective advantages and drawbacks (Estopá, 2009). So translation plays a paramount role when it comes to the extraction and the translation of terms from the source language to the target language terms .In order to be familiar with the

development and technology we have to be familiar with its terminology, and translation may be the solution since the translator can suggest the equivalent term in the target language.

II.7. The interaction between translation and terminology:

The interaction between translation and terminology has been addressed by various authors both in the field of translation and terminology. From a translational perspective, terminology is considered a tool to solve particular problems, while in terminology, translated documents may serve as a source for extracting terms when there are no original texts on the subject in the target language.

Ali Al-Qasimi believes that the developed countries, characterized by representing the ideal terminological situation that is represented as product or idea (term) by the researcher and the utilizing the services of terminologists in the terminology of it in the origin language, by considering that he is well versed in the language and all its aspects. Meanwhile, it differs when it comes to the consuming countries that have an economic dependency such as Arab countries, where there is confusion between the terminologist mission and the translator. Even if the terminologist becomes a translator in some cases, and the translator becomes a terminologist at other times, and it seems that they have the same task in dealing with terms.

II.8. General Methods of Term -Formation in Arabic:

To adopt or coin new terms, every language utilizes its own approaches and strategies. Theyeither expand their vocabulary treasure based on their own existing language capabilities or based on borrowing from other languages (Darwish, 2009).   As follows:

II.8.1. Arabization or Lexical borrowing [al-ta'rib] [التعريب]:

Arabization refers to phonetic borrowing via transliteration and/or transcription. According to Darwish (2009):"borrowing is the process through which "the phonetic properties of the source language technical terms are rendered with modification to suit Arabic pronunciation methods" (pp. 113-114).
Ya'qub (1986, as cited in Darwish, 2009) has earlier warned that excessive use of lexical borrowing via transliterating and transcribing English letters and sounds into Arabic would jeopardize the foundation of the Arabic language and could make it unintelligible and unreadable. .

With respect to the acceptability of Arabicized terms proposed by Arabic language academies, Al-Haq and Al-Essa (2016) conclude that attitudes towards Arabicized business terms, which were translated and published by the Jordan Academy of Arabic, were generally

positive. This gives useful recommendations for terminology makers in ALAs in order to come up with appropriate and generally accepted Arabicized terms. In another related research paper, (Awand and salmen, 201, pp. 92-106).

II.8.2. Semantic/Pragmatic Modification of Existing Arabic Terms [al-majaz][المجاز] :

According to this word-formation technique, foreign words are translated into Arabic by usingArabic equivalents. Old Arabic words appear with new meanings. However, this technique hasitspitfalls as literal translation does not always succeed in rendering the terms contextually correct. For instance, 'dead room' in acoustics is rendered as (غرفه ميتة)ghurfahmayyitah' instead of (غرفه كاتمه) 'ghurfahkatima' (Darwish, 2009, p. 114).

II.8.3. Derivation [al-ishtiqaq] [الاشتقاق]:

Derivation is one of the oldest techniques of word-formation, which rests on inherent Arabic

Patterns and models.Darwish (2009) classifies derivations of Arabic into three types: minor derivation, major derivation and greater derivation (p. 115).

II.8.3.1. Minor Derivation[al-ishtiqaq al-sagheer] [الاشتقاق الصغير]:

Arabic words usually consist of roots. Minor derivation refers to a word-formation process through which new words are formed from one root in conformity with standard Arabic patterns of subject, verb, object, adjective, etc. as in the following example. The Arabic trilateralrootكتب [kataba] كَ تَ بَ denotingwriting is expanded as follows:

Root	Transliteration	Translation
كتب	Kataba	He wrot
يكتب	Yaktubu	He writes
كاتب	Katib	writer
مكتوب	Maktub	Written/letter
مكتب	Maktab	Office desk
مكتبة	Maktabah	Bookshop, librery

Table n°2: Examples of minor derivation.

II.8.3.2. Major Derivation[al-ishtiqaq al-kabeer] [الاشتقاق الكبير]:

It is defined as the creation of new words from existing 3-letter words by conversion and rearrangement of letters. For example, the word سبر [sabara] سَ بَ رَ reshuffled to produce thefollowing words:

Word	Transliteration	Meaning
برس	Barassa	To be hard on one's opponent, barrasa al-arad is to smoothen the ground, al-baras is cotton
سرب	Saraba	To go away. (السرب); "as-sarb" is a flock of birds/ herd of animals; (سرب) "sariba" is to leak
رسب	Rassaba	To fail, to precipitate
بسر	Bassara.	To frown, to squeeze a pimple, etc
ربس	Rabassa.	To hit with the hand, to interlace, to weaken, etc
سبر	Sabara	To probe

Table n°3: Examples of major derivation.

II.8.3.3. Greater Derivation [al-ishtiqaq al-Akbar][الاشتقاق الأكبر]:

It is the coinage of new words by substituting one phoneme by another of the same phonemic family such as ص /S/, س/S/, ض /d/ and د/d/, /t/, ذ /z/ and ث /th/ etc., e.g. صقر /šaqar/ and سقر /saqar/.All of the above word-creation methods use the same roots of the Arabic words to make new words. The derived words are made from one root. Therefore, derivation is considered one of the frequent methods in the formation of scientific and technical terms in Arabic.

II.8.4. Compounding [al-naht][النحت]:

Compounding refers to the coinage of new words by merging two or more words to signify theirmeaning. Two or more words joined together to form a new word.

Examples:

Home + work   homework

Pick + pocket   pickpocket

Low + paid   low-paid

Antiserum   مصل مضاد

II.8.5. Composition [al-tarkib] [التركيب]:

Based on this method of word-formation, Arabic words are combined with "foreign affixes andsuffixes or Arabic affixes or prefixes are combined with foreign words" (Darwish, 2009). Generally, Arab translators and writers, who are in contact with foreign cultures and civilizations, make deft use of composition as a word-formation technique in the Arabization process.

II.9. Conclusion:

This chapter is meant to describe the theoretical and practical foundations of terminology and translation, since our concern is to shed light on the methods used to generate a term in a source language and the translational practices established to find or generate terms in the target language.

Therefore, we can state that terminology not only has a standardizing function as developed by the Autrianschool, but also an operational function. From a pedagogical perspective, it is also important to recall that terminology is taught as a fundamental unit in most specialized translation training programs. That is to demonstrate the importance of such a discipline in terms of interlingual communication and translation.

Our research also led to regard languages from a disciplinary perspective. As a result, a terminological analysis of a given list of terms in the medical and pharmaceutical fields can only be performed on the following grounds:

− General language and specialized languages operate in order to ensure communication, but are structurally different.

− Comparatively, the amount of terms in a specialized material is higher than that in a general material.

− The tasks assigned to translators and terminologists often interfere when it comes to generating terms in the target language.

− Terms are lexical units used in a specific area of activity. They may also be used in general languages but don't involve accurate knowledge by their users.

− The quick dissemination of foreign terms may cause a confusion in the target languages; the term is arabized by a translator or a reporter or via media, but it doesn't necessarily meet the terminological requirements in the target language such as clarity, objectivity, brevity, simplicity and precision.

− The described interactions between translation and terminology lead us to confirm the importance of these two disciplines when analysing any set of terms.

Chapter II

The Analysis of The Selected Terms

1. Introduction:

Medicine has always preoccupied people and plays a key role in preserving lives and in preventing health risks. The word "medicine" is commonly used by various communities, and it is certain that terminological research in the fields of medicine and translation is a worthy topic. Firstly, due to the lack of in-depth studies in this field, and because of some obstacles that medical students encounter, it has become a fearful ghost, due to the difference between the education system in the pre-university stage since it relies on the Arabic language, and the system of the medical college that adopts foreign languages is a path that we decided to study in our topic. Medical translation is one of the most difficult translations because medical documents contain a high degree of scientific specialization and complexity, and these documents require accuracy and expertise to ensure obtaining professional translation. On the other hand, learners should learn to use the proper terms to define aspects of their field, and should use the adequate equivalents towards and from their mother tongues.

From the linguistic point of view, terminology is one of the most important branches of applied linguistics, because it is concerned with the scientific foundations for the development of terms' generation, as it ensures their unification and the collection of everything related to a given cognitive field, focusing on the basic scientific concepts, then putting appropriate term for them like medical terms. We relied on the previous terminological studies in order to observe the equivalents of a list of terms and their equivalents in Arabic.

2. Method:

This section of the study shows the analysis of recently spread medical and pharmaceutical terms in English and their equivalents in Arabic language. To that end, we used the ***"Dictionary of Covid-19 Terms"***[3]; a glossary of terms that gathers multiple terms related to Covid-19, by Mohamed Ould Amar in cooperation with the Arab League Educational, Cultural and Scientific Organization (ALECSO),theBureau of Coordination of Arabization in Rabat, and the "Arabterm"[4] web platform; a technical dictionary that includes terms of four languages (Arabic, English, German and French), which is also issued by (ALECSO) and is based on an idiomatic and terminological database that includes 156.140 entries and 531.950 terms arranged according to dictionaries in various fields.

In order to clarify our research for the equivalent of English medical and pharmaceutical terms in the Arabic, we decided to transfer some laptop screenshots illustrating the various

---

[3]http://www.alecso.org/nsite/images/pdf/6-5-2020.pdf
[4] http://www.arabterm.org/index.php?id=3&L=2

options proposed by "Arabterm" when inserting some of the medical terms contained in the "Dictionary of Covid-19 Terms". The symbols attached to the terms must be referred to as follows:

⭐ : Validated term.

⭕ :Unified ArabictermvalidatedduringtheArabizationCongressorganizedbytheArab League Educational, Cultural and Scientific Organization (ALECSO) affiliatedtotheArab League.

3. Data Analysis:

As mentioned in the first chapter, term generation relies on established methods. For practical and organizational reasons, we think it's preferable to classify the selected terms according to those methods, namely: Arabization, minor and major derivation, compounding along with their definitions in English and Arabic. The definitions in Arabic are taken from the Dictionary of COVID-19 Terms of Ould Amar, than we translate it into English.

3.1. Arabization:

 Term n°1 :

Term in English	Term in Arabic
Chloroquine	كلوروكين

▸ **Definition in English:**

An antiviral drug, so far known to fight malaria, chloroquine, or its derivative hydroxychloroquine, is used to treat some cases of Covid-19. The French infectious disease specialist Didier Raoult is one of the most prominent advocates of considering it an effective treatment against this virus. This medicine, if taken without medical advice, can cause side effects and heart problems. (OurTran).

▸ **Definition in Arabic:**

دواء مضاد للفيروسات، معروفة حتى الآن بمحاربة الملاريا، يستخدم الكلوروكين، أو الدواء المشتق منه هيدروكلوروكين في علاج بعض حالات كوفيد19. يعتبر أخصائي الأمراض المعدية الفرنسي ديدييه راؤول من أبرز المدافعين على اعتباره علاجا فعالا ضد هذا الفيروس. يمكن أن يسبب هذا الدواء في حالة تناوله من غير استشارة طبية في إحداث أعراض جانبية ومشاكل في القلب.

- This pharmaceutical term has just one equivalent, it is arabized through one direct translation strategy known as borrowing; a strategy that consists on   keeping the

pronunciation and the meaning of the word in TL. It is unified and standard in AT web-site and in the DIC as well.

- **Term n°2 :**

Term in English	Term in Arabic
Covid-19	كوفيد- 19

▪ **Definition in English:**

The name given by the World Health Organization on February 11, 2020 to the disease caused by the Corona virus, which is usually accompanied by fever, fatigue and cough, in addition to respiratory problems, and some cases infected with it may be severe, leading to respiratory problems, and some severely infected cases may sometimes lead to death. Adding the number 19 in addition to the year 2019, in which the first case of the virus was discovered. (Our Tran) This term is unified and standard.

▪ **Definition in Arabic:**

الاسم الذي أطلقته منظمة الصحة العالمية في 11فبراير 2020على المرض الذي يسببه فيروس كورونا ويكون مصحوب عادة بالحمى والعياء والسعال إضافة إلى المشاكل التنفسية وقد تكون بعض الحالات المصابة به شديدة تؤدي إلى المشاكل التنفسية وقد تكون بعض الحالات المصابة به شديدة تؤدي إلى الوفاة أحيانا وقد تمت إضافة الرقم 19إضافة إلى العام 2019الذي اكتشفت فيه أول حالة للفيروس.

- **Term n°3 :**

Term in English	Term in Arabic
Genome	جِيُوم، مجين

▪ **Definition in English:**

All genetic material carried by organism chromosomes. (Our Tran).

▪ **Definition in Arabic:**

جميع المواد الوراثية التي تحملها صبغيات   الكائن الحي.

– This term has two equivalents in both Dic and at web-site, we obtained six (06) equivalents as a results but this two equivalents (مجين، جينوم), are the mostsuitableones.

– All the previous terms are arabized, it means they have the same meaning and pronunciation in both SL and TL, so these foreign terms become a part of Arabic language through the borrowing strategy. This method/strategy is witnessed in many other languages and may cause unacceptance.

3.2. Derivation:

– **Term n°1 :**

Term in English	**Term in Arabic**
Cluster	عنقود

- **Definition in English:**

An unexpected number of cases infected with the disease in a particular location or among a group of people at the same time. (OurTran).

- **Definition in Arabic :**

عدد غير متوقع من الحالات المصابة بالمرض في موقع معين أو بين مجموعة من الناس في نفس الوقت.

- This term in the Covid-19 dictionnary it has one equivalent but in AT it has several equivalents like:

<div dir="rtl">

‒ مجموعة.

‒ كومة.

‒ خصلة.

‒ حشد.

</div>

‒ This term is unified and standard but it has no accurate equivalent.

‒ **Term n°2:**

Term in English	Term in Arabic
Contagious	معد

▶ **Definition in English:**

A carrier of infection due to direct or indirect contact with a person infected with the virus. (Our Tran).

▶ **Definition in Arabic:**

<div dir="rtl">

ناقل للعدوى بسب مخالطة مباشرة أو غير مباشرة لشخص مصاب بالفيروس.

</div>

‒ This term is unified and standard; the same translation is in the Dic and AT. This equivalent "معد" is derived from the arabic verb "أعدى". We got five (05) research results.

− **Term n°3:**

Term in English	Term in Arabic
Diagnosis	تشخيص

◗ **Definition in English:**

Information obtained by the doctor or medical team about the nature of the disease and the causative agent, and methods of treatment and prevention.(Our Tran).

◗ **Definition in Arabic:**

المعلومات التي يحصل عليها الطبيب أو الفريق الطبي حول طبيعة المرض و العامل المُسبب،و طرق المعالجة و الوقايةمنه.

-This term has one equivalent althoughweget 30research resultbecausejust the word (تشخيص) are repeated.
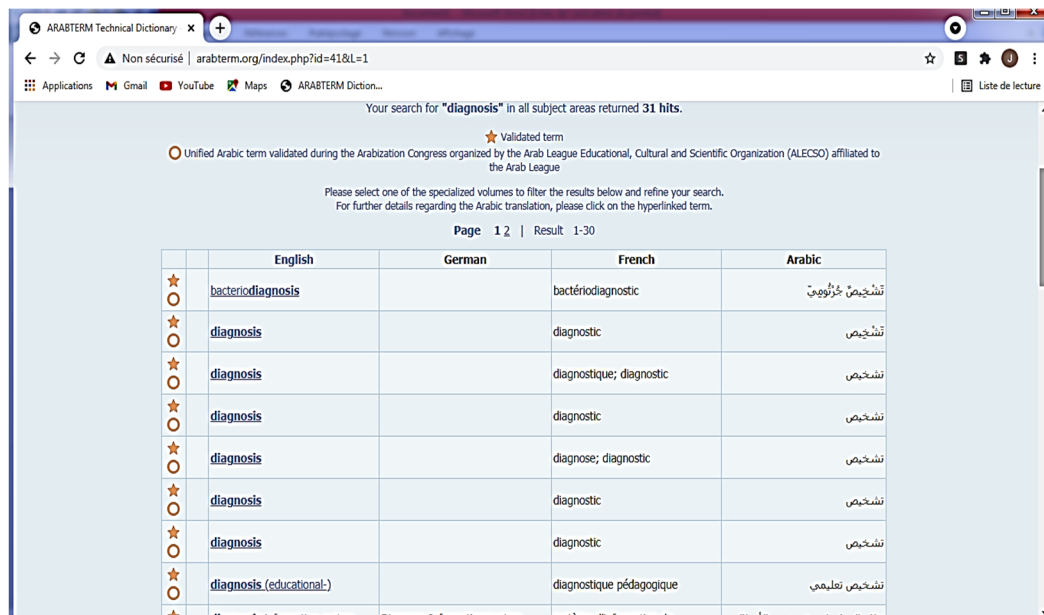
− **Term n°4:**

Term in English	Term in Arabic
Epidemic	وباء

Definition in English:

A disease state can be classified as an outbreak, epidemic or pandemic depending on its extent. The outbreak is a sharp increase in the number of people infected with a single disease. The epidemic is a sharp increase in the number of infected patients, and this increase has spread over a large area. (Our Tran).

-Definition in Arabic:

يمكن تصنيف حالة المرض على أنها تفشٍّ أو وباء أو جائحة تبعاً لمدى انتشاره. فالتفشي زيادة حادة في عدد الأشخاص المصابين بمرض واحد. و الوباء زيادة حادة في عدد المرضى المصابين، و انتشار هذه الزيادة على مساحة كبيرة.

− Although we get 08 equivalents as a result in AT web-site, there is just one accurate equivalent which is (وباء), it is standard and unified .it derived from the Arabic verb (وبأ).

− **Term n°05:**

Term in English	Term in Arabic
Sterilization	تعقيم

Definition in English:

Procedure followed to purify a substance of microbes, viruses and bacteria, usually using heat or chemical means. (Our Tran).

Definition in Arabic:

إجراء يتبع لتنقية مادة ما من الميكروبات والفيروسات والبكتيريا ,ويتم ذلك عادة باستخدام الحرارة أو وسائل كيميائية .

− Wegotseventeen (17) equivalents of thisterm but the accurate one is (تعقيم) which has been mentioned in the dictionary as well. It derivedfrom the Arabic verb (عقم).

3.3. Compounding:

− **Term n°01:**

Term in English	Term in Arabic
BCG vaccine	لقاح بي سي جي

Definition in Arabic:

This vaccine is not used to protect against the Coronavirus, but it can be relied upon to make the patient's immune system able to fight it. (Our Tran).

Definition in Arabic:

لايستخدم هذا اللقاح للحماية من فيروس كورونا ولكن يمكن الإعتماد عليه لجعل الجهاز المناعي للمصاب قادرا على محاربته.

– **Term n°2 :**

Term in English	Term in Arabic
FFP2 mask	قناع FFP2

▶ **Definition in English:**

There are several types of masks to deal with the Corona virus pandemic, including simple surgical masks and FFP2 masks, which are more advanced waterproof and air-filtering, also called duckbills, which are mandatory for hospital staff and covid-19. (Our Tran).

▶ **Definition in Arabic:**

هناك عدة أنواع من الأقنعة للتعامل مع جائحة فيروس كورونا منها الأقنعة الجراحية البسيطةوأقنعةFFP2 وهي أكثر تطورا مقاومة للماء وذات قدرة على تصفية الهواء وتسمى أيضا منقار البط وهي إلزامية لموظفي المستشفى وكوفيد- 19.

– **Term n°3 :**

Term in English	Term in Arabic
mRNA-1273 vaccine	لِقَاحmRNA-1273

▶ **Definition in English:**

An experimental vaccine developed by biotech company (Moderna) to protect against the new CORONA virus is in the early stages of clinical trials for healthy adults. (Our Tran).

▶ **Definition in Arabic:**

مرشح لقاح تجريبي طورته شركةالتقانة الحيوية" مودرنا" للحماية من فيروس كورونا الجديد وهو في المراحل الأولى من التجارب السريرية التي تجرى على المشاركين بالغين أصحاء.

– **Term n°4:**

Term in English	Term in Arabic
N95 respirator	نْفَاسN95

▶ **Definition in English:**

Long-term artificial respiration device.(Our Tran).

▶ **Definition in Arabic:**

جهاز لتوفير تنفس صناعي طويل المدى.

-This term is compound of two words "N95" and "respirator", "N" it means NIOSH (National institute of Occupational Safety and Health).We got 12 research results just for the second word, regarding the second word, it does not exist, and we found it just in the Dictionary of Covid-19 Terms.

4.4. Composition:

– **Term n°1:**

Term in English	Term in Arabic
pneumonia	التهاب الرئة

▶ **Definition in English:**

Acute or chronic inflammation of the lungs due to bacterial, immune, or physiological factors.(Our Tran).

▶ **Definition in Arabic:**

التهاب حاد او مزمن يصيب الرئتين بسبب عوامل جرثومية او مناعية او فيسيولوجية.

-The equivalent of thisterm is standard and unified, it made out of two words, althoughwegotfifteen (15) equivalents as a result in the AT web-site,thesuitable one whichalso has mentioned in the Dic (التهاب الرئة).

– **Term N°2 :**

Term in English	Term in Arabic
Antiserum	مصل مضاد

▸ **Definition in English:**

A serum rich in antibodies is extracted from the blood of people who have recovered from Covid-19 infection. It is known that a patient infected with the virus generates antibodies and recovers, so his antibodies are collected and transferred to another patient to strengthen his immune system. (OurTran).

▸ **Definition in Arabic:**

مصل غني بالأجسام المُضادة يستخلص من دم الأشخاص الذين تمّ شفاؤهم من عدوى كوفيد -19 ومن المعلوم أن المريض المصاب بالفيروس يولّد الأجساملمُضادة و يتعافى، لذلك يتم جمع أجسامه المُضادة و نقلها إلى آخر لتقوية جهازه المناعي.
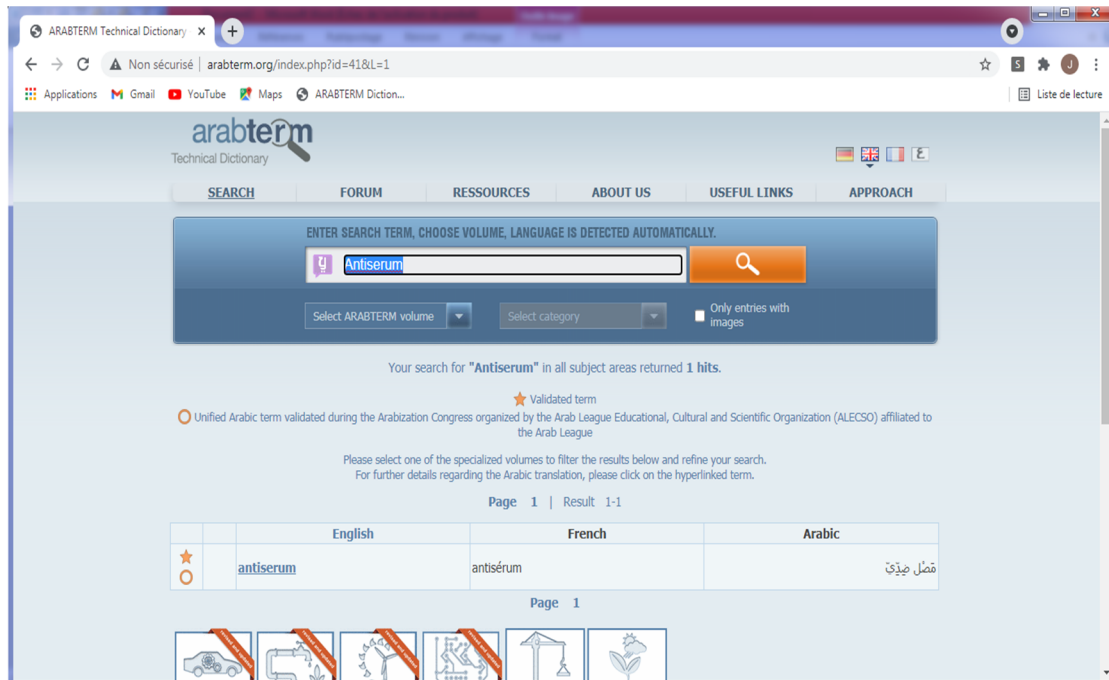
-This term   has one equivalent in the platform "ARABTERM". As we illustrated in the picture, the term "Antiserum" but its equivalent in Arabic is a compound of two words.

– **Term n°3 :**

Term in English	**Term in Arabic**
asymptomatic	عديم الاعراض

▶ Definition in English:

A person who is infected with the disease does not show symptoms, but it is a great source of infection. (OurTran).

▶ Definition in Arabic:

الشخص الحامل للمرض ولا تظهر عليه الأعراض، و لكنه مصدر كبير للعدوى.

-This term is considered unified and validated term; it has two research results in the platform "ARABTERM", and one in the Dic, but they have the same equivalent (لا عرضي) and (عديم الأعراض). We also notice that the equivalent in Arabic is made out of two words.

– **Term n°4 :**

Term in English	Term in Arabic
comorbidity	مراضة مشتركة

▶ **Definition in English:**

The presence of more than one health condition or a disease condition in a person, for example, having high blood pressure and high blood sugar, is at risk of contracting of coved 19. (Our Tran).

▶ **Definition in Arabic:**

وجود أكثر من وضع صحي أو حالة مرضية لدى الشخص مثال ذلك أن يكون مصابا بارتفاع ضغط الدم وارتفاع في سكر الدم مما يجعله معرضا لخطر الإصابة بمرض كوفيد-19.

Term in English	Term in Arabic
Dyspnea	ضيق النَّفَس

▶ Definition in English:

Not being able to get enough air, feeling intense tightening in the chest and suffocation, which is one of the main symptoms of COVID-19?(Our Tran).

▶ Definition in Arabic:

عدم القدرة على الحصول على ما يكفي من الهواء، وشعور بضيق شديد في التنفس وبالاختناق، وهو أحد الأعراض الرئيسية لمرض كوفيد-19.

– **Term n°5 :**

Term in English	Term in Arabic
germicide	مبيد الجراثيم

▶ Definitoin in English :

 A substance capable of killing germs, viruses.(OurTran).

▶ Definition in Arabic:

مادة قادرة على قتل الجراثيم والفيروسات والفطريات.

-The same equivalent of this term in both the Dic and Arabterm although we obtained 04 research results in Arabterm . This equivalent is compound of two words (مبيد) and(جراثيم).(OurTran).

− **Term n°06 :**

Term in English	Term in Arabic
Hypoxemia	نقص تأكسج الدم

🔹 **Definition in English:**

Decreased oxygen content in arterial blood.(OurTran).

🔹 **Definition in Arabic:**

انخفاض محتوى الاكسجين في الدم الشرياني.

− **Term n°07 :**

Term in English	Term in Arabic
hemoptysis	نفث الدم

🔹 **Definition in English:**

Cough accompanied by bloody surroundings. (OurTran).

🔹 **Definition in Arabic:**

سعال مصحوب بخروج مخاط دموي.

-We observe just one equivalent in the Dic, but there are no results in Arabterm web-site.

✎**Remark**:

The equivalents of the medical terms: Dyspenea, hymoptysis, hypoxemia, N95 respirator, symptom, comorbidity, mRNA 1273 vaccine, FFP2, sentiralization, and covid-19 are not included in the Arab term web-site. So we have found just 10 equivalents out of 20.

4. Data Display:

The mean falls under the so-called measures of central tendency in statistics, and measures of central tendency are defined as measures that describe an entire set of data with a single value representing the middle or center of its distribution. One of these measures is the arithmetic mean.

The arithmetic mean is equal to the sum of the values divided by the number of values. It is usually denoted as $\underline{X}$ and $It\ is\ pronounced\ "xbar"$. so:

$\sum xi$: is the sum of values.
N: is the number of values.

$$\bar{X} = \frac{\sum xi}{n} = \frac{X_1 + X_2 + \cdots + X_{10}}{N} = \frac{10}{20}$$
$\bar{X} = 0,5$
$0.5 \times 100 = 50\%$

5. The General Analysis:

Through the use of Arab term, we observed that there are some terms that have several results which are validated and unified like the term "diagnosis" which has 30 research results, whereas the term "antiserum" which has one research results.

The comparison between the dictionary of Ould Amar and the Arabterm led us to observe that there are some terms which have no equivalents in the Arabterm; this leads to the conclusion that this web-site does not include too many medical terms.

Following the calculation of the arithmetic mean, we found that only 50% of the selected terms have their equivalents in Arabterm. Consequently, it is possible to state that some terms are neither unified nor standardized yet, or are still being studied. This result also ilustrates the terminological and lexical issues a researcher may encounter when attempting to find the adequat terms in the target language for an effective communication.

6. Conclusion:

In this practical chapter of our research dedicated to the analysis of the recently spread medical and pharmaceutical English terms and their equivalents in Arabic, and according to

our observation on the contents Covid-19, as well as Arabterm, the final results that we obtained from the Arabterm platform illustrate that these terms have the same definitions and the same equivalents compared with the Covid-19 dictionary as shown in the previous screenshots. These similar results are probably due to the reason that; the dictionary and Arab term are issued by the same Organization (ALECSO). However, the equivalents of other ten terms were not listed in Arabterm, this mostly goes to the fact that this platform does not contain much medical terms because the study of these medical / pharmaceutical terms and their equivalents have not been completed yet in this field.

Our research also led us to discover the importance of terminological analysis, and to confirm the role it plays when it comes to accurate communication and multilingual performances.

General conclusion

In this research we shed light on the previous studies that focus on the relationship between terminology and translation in creating and generating terms, but also on the various theories and operational multilingual applications. In order to illustrate this relationship, we performed an analysis of twenty English medical and pharmaceutical terms and their equivalents in Arabic.

From the previous studies and the actual analysis of the selected terms, it is necessary to recall that terminology, as a standardizing discipline, plays a major role in the framework of specialized languages and specialized translations. In order to generate terms, Darwich (2009) classified a set of methods in his book *Terminology and translation: A phonological-semantic approach to Arabic terminology*, these methods are: arabization , compounding and composition and   derivation the later has three type also: minor derivation, major derivation and greater derivation .

There is an interaction between terminology and translation and there is a common range between them also. In other words, we can say that terminology involves the study of terms in various fields, and specialized translation relies on upstream terminological and termigraphical resources. On the other hand, terminology relies on translation as a method of generating terms like arabization. That is to say that in translating a term, a translator can face possibilities in the target language as demonstrated in our practical section from the comparison between the Covid-19 dictionary and ARABTEM :

1. There is no equivalent, or the equivalents are not determined nor standardized yet.

2.The translator finds the equivalent provided by previous terminological and terminographical applications.

Vinay and Darbelnet (1958) relied on two types of techniques of translation oblique and techniques like borrowing ,modulation and transposition and so on . When a learner is looking for the equivalent of any term in Arabic, he must use dictionaries which include unified and standard terms like ARABTERM because the use of a random dictionary may lead him to choose the wrong equivalent, especially when the learner doesn't include a documentary research in the process.

BIn our view, The Arabic language is rich in words, and in order to keep its purity we have to avoid using arabization, and excessive borrowings when looking for the equivalents of terms. Linguists and scholars should therefore generate terms from the language itself by analysing the process in foreing languages and adapt it to Arabic. The purpose of this study is to insist on the importance of constant terminological studies and term databases in order to keep pace with the quick spread of new concepts and new terms in multiple fields, especially

in medicine and pharmacology. It is also meant to illustrate the importance of current trends in this field.

Due to the importance of such a field in western countries, and to the effective specialized communication, supporting the Arabic applications in terminology is more than necessary so that unified and standardized terms in various fields can be available for professional or pedagogical purposes. Furthermore, we suggest the inclusion of terminology in universities' syllabus in order to raise awareness amongst EFL students and the academic communities.

To conclude, our limited study confirmed the assumed hypothesis and clarified the fundamental interactions between translation and terminology. Further studies in other cognitive fields may also shed light on the effective contribution of terminology in translation and multilingual specialized communication.

References

- Al-Qasimi, A. (1958). El-Alaqa Bayna Ilm El-Mostalah WA Nazariyat El-Tarjama lissan Al-Arabi, No.40.

- Al-Qasimi, A. (2004). Ilm El-Logha wa Sinaat Al-Moajam, Riyad.

- Amarasinghe, H, & Ariyaratne, M. (2020). Impact of Specialized Translators and General Translators on Translation Performance. *International Journal of Research and Innovation in Social Science, 4* (3), .*Sabaragamuwa University of SriLanka*

- Cabré, M.T. (1998). *La terminologie –Théorie, Méthodes et Applications*. Ottawa : La Presse de l'université d'Ottawa.

- Cabré M. Teresa., & Sager, J. C. (1999). *Terminology Theory, Methods, and Applications*. Amsterdam: J. Benjamins Pub.

- Cabré, M.T. (2003). *Theories of Terminology. Their Description, Prescription and Explanation, in Terminology.* John Benjamin's Publishing.

- Cabri, M.T. (2004). "La terminología en la traduccióne Specializada." In Manual de documentación y terminologíapara la traduccióne specializada, edited by Consuelo Gonzalo García and Valentín García Yebra, Madrid: Arco.89–122.

- Culturesconnection.com

- Darwish, A. (2009). *Terminology and translation: A phonological-semantic approa Arabic terminology.* Australia: Writescope Publishers.

- Dictonary.cambridge .org.Retrieved.21-09-2019.

- Durkin, P. (2009). *The Oxford guide to etymology*. Oxford: Oxford University Press.

- Estopà, Rosa. (2009). "Los extractores de terminología: logros y escollos." In Terminología y sociedad del conocimiento, edited by AmparoAlcina, Esperanza Valero, and Elena Rambla. Bern: Peter Lang.

- Faber, P; P, León; J. Prieto.(2009).Semantic relations, dynamicity, and terminological knowledge bases. *Current issues language studies, 1* (1).

- Faber, P & Rodriguez, L. (2012). Terminology and Specialized Language. In book: Faber.P, (Ed). *A Cognitive Linguistics View of Terminology and Specialized Language.*

- Faber , P and Martinez, S. M. (2019). Terminology. (Chap14). In Valdeon, A, and Vidal, A . *Routledge Handbook of Spanich Translation Studies.*Illusteé.

- Felber, H. 1984. *Terminology Manual*. Paris: Unesco.

References

- Gelinas-Surprenant, G. and Hussman, G. (2015). Canadian Terminology. Standardizing Terminology for Better Communication: Practice. *Handbook of Terminology,1*. DOI: 10.1075.

- Gouadec, D. (2007). Translation as a profession. Amsterdam: J. Benjamins Publishing Company.

- Gotti, M; Sarcevic, S. (2006). *Insights Into Specialized Translation*. Peter Lang. ISBN 9783039111862.

- Heikkilä, K, P. (2008) "Term formation in a special language: how do words specify scientific concepts. Hacken, P, T and Thomas, C. (2013) .*The Semantics of Word Formation and Lexicalization*. Edinburgh University Press.

- Kageura, K. (2015). Terminology and lexicography. In A, J. Kackaert. H. and Steurs. F. (Ed.). *Handbook of Terminology.*

- Lindquist, L. (1940).General Language. *The Modern Language Journal*, *24* (8).

- Lipka, L. (1992). *Lexicalization and Institutionalization in English and German*. Linguistica Pragensia.

- Lyons, J (1968). *Introduction to Theoretical Linguistics.* V (510) Illustrée, réimprimée. Cambridge University Press. DOI: 10.1017/CBO9781139165570

- Lyons , J (1981). *Language and Linguistics: An introduction*. Illustrée, réimprimée. Cambridge University Press.

- Malkiel , y. (1994). *Etymology*. Cambridge University Press.

- Malkiel , Y. (1958). *Culture History through Linguistics. Italica, 27*(4). Doi: 10.2307/476137.

- Malkiel, Y. (1962) Etymology and General Linguistics, *WORD*, 18:1-3, 198-219. https://doi.org/10.1080/00437956.1962.11659774

- McArthur, J ; McArthur, T, & Fontaine, L (1992). *The Oxford companion to the English language*. Oxford:Oxford University Press.

- Munday, J. (2016). *Introducing Translation Studies*. Illustrée, revise. New York.

- Munoz, M.S. & Oton, E.M. Introduction a la terminology.

- Newmark, P. (1988). *Approaches to Translation*. Hertfordshire: Prentice Hall.

- Nordquist, R . (2020). What is Lexicology? https://www.thoughtco.com/what-is-lexicology-1691230

References

- Popp , C. (2001). Nomenclatures and Computer aided Terminography. In F. Mayer. (Ed.). *Language for special purpose: perspectives for the new millennium*. Narr, Tubingen.

- Richard, R . Ipsalter Oxford English Dictionary, online .

- Sager, J, c & johson. R. (1979) Terminology: The State of The Art. Actualite terminologique. Furgeson. (1971). diglossia. Word. Vol-15.

- Salminen, A. N (1997), *la Lexicologie*, Armand Colin. Masson, Paris.

- Temmerman, R. (2000). Towards New Ways of Terminology Description. The sociocognitive approach. Amsterdam/ Philadelphia: John Benjamins.

- Vinay, J. P, & Darbelnet, J. (1958/2000). A Methodology for Translation. *Comparative Stylistics of French and English: A Methodology for Translation.* Benjamins, J.11,London.

Appendix

List of Selected Terms

- Antiserum
- asymptomatic
- BCG vaccine
- Chloroquine
- cluster
- comorbidity
- contagious
- COVID-19
- Diagnosis
- dyspnea
- Epidemic
- FFP2 mask
- genome
- Germicide
- Hymoptysis
- Hypoxemia
- mRNA-1273 vaccine
- N95 respirator
- pneumonia
- Senterilization

Résumé

En raison des différences linguistiques entre les langues, rendre de nouveaux concepts incarnés dans de nouveaux termes a toujours été un problème de traduction. L'anglais est devenu le médium de la science et de la technologie. Par conséquent, il domine les autres langues dans les domaines cognitifs scientifiques et techniques. Les termes et concepts médicaux sont traduits principalement de l'anglais vers d'autres langues telles que l'arabe afin de diffuser divers contenus spécialisés dans le monde entier. Pour atteindre cet objectif, des stratégies de traduction, ainsi que des méthodes de génération de termes tels que la dérivation et la composition sont utilisées. L'objectif de cette recherche est d'identifier des stratégies de traduction directement concernées par les performances terminologiques. En conséquence, nous avons établi une analyse descriptive et comparative de vingt termes pharmaceutiques et médicaux anglais analysés et discutés avec et leurs équivalents. Ces termes et leurs équivalents ont fait l'objet d'une comparaison entre ARABTEM ; un dictionnaire technique publié par l'organisation arabe pour l'éducation et la culture avec des références aux ministères fédéraux de la coopération économique et du développement de la République fédérale d'Allemagne qui ont adopté diverses stratégies de traduction pour introduire et assimiler ces termes en arabe. L'expérience démontre des résultats déséquilibrés entre le dictionnaire COVID-19 et ARABTEM.

Mots clés: Terminologie, Traduction, Arabisation , termes médicaux, COVID-19.

ملخص

نظراً ا للاختلافات اللغوية بين اللغات، فإن تقديم مفاهيم جديدة مجسدة في مصطلحات جديدة كان دائماً ا مشكلة صعبة في الترجمة. أصبحت اللغة الإنجليزية وسيلة العلوم والتكنولوجيا، لذلك فهي تهيمن على اللغات الأخرى في المجالات المعرفية العلمية والتقنية. تُترجم المصطلحات والمفاهيم الطبية بشكل أساسي من اللغة الإنجليزية إلى لغات أخرى مثل العربية لنشر محتويات متخصصة مختلفة في جميع أنحاء العالم. لتحقيق هذا الهدف، يتم استخدام استراتيجيات الترجمة، وكذلك طرق إنشاء المصطلحات مثل الاشتقاق والتكوين. الهدف من هذا البحث هوتحديد استراتيجيات الترجمة التي تهتم بشكل مباشر بأداء المصطلحات وفقاً ا لذلك، نأنتحُليلاً ا وصفياً ا ومقارناً لعشرين مصطلحات صيدلانية وطبية إنجليزية تم تحليلها ومناقشتها مع وما يعادلها. هذه المصطلحات وما يعادلها كانت قابلة للمقارنة بين ARABTEM؛ قاموس تقني صادر عن المنظمة العربية للتربية والثقافة مع إشارات إلى الوزارات الاتحادية للتعاون الاقتصادي والتنمية في جمهورية ألمانيا الاتحادية التي اعتمدت استراتيجيات ترجمة مختلفة لتقديم واستيعاب هذه المصطلحات إلى اللغة العربية. توضح التجربة نتائج غير متوازنة بين قاموس COVID-19 و ARABTEM.

الكلمات المفتاحية : علم المصطلح، الترجمة، التعريب،المصطلحات الطبية،كوفيد-19 .