Translation During Health Crises: A Study of Translation Strategies of COVID -19 Terminologies in the ALESKO Online Dictionary During the Pandemic

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الملخص

يتناول هذا البحث دراسة وتحليل استراتيجيات الترجمة المستخدمة في نقل المصطلحات العلمية المرتبطة بجائحة كوفيد-19. وقد اعتمدت الدراسة على عينة من المصطلحات المختارة من القاموس الإلكتروني للألكسو المتاح على منصة المنظمة العربية للتربية والثقافة والعلوم. ويهدف البحث إلى تحديد أكثر استراتيجيات الترجمة استخدامًا في نقل المصطلحات العلمية، مع تفسير الأسباب التي قد تكون وراء اختيارها. ولتحقيق هذا الهدف، اعتمدت الدراسة المنهج الوصفي التحليلي من خلال تحليل 150 مصطلحًا وتصنيف استراتيجيات الترجمة المستخدمة في نقلها. أظهرت النتائج استخدام مجموعة متنوعة من استراتيجيات الترجمة، إلا أن الاستراتيجية التفسيرية كانت الأكثر شيوعًا، ويُعزى ذلك على الأرجح إلى غياب المقابل المباشر لبعض المصطلحات المستحدثة، إضافةً إلى حرص المترجمين خلال فترة الجائحة على توضيح المعنى وتيسير فهمه لدى المتلقين. كما بينت النتائج أن اختيار استراتيجيات الترجمة قد يتأثر بعدة عوامل، من أبرزها الضغط الزمني الذي يواجهه المترجمون أثناء الأزمات الصحية، ومحدودية المصادر المتاحة، والظهور المستمر لمصطلحات جديدة تتطلب حلولًا ترجمية سريعة وفعالة. وخلص البحث إلى أن الترجمة تؤدي دورًا محوريًا خلال الأزمات الصحية، إذ تسهم في دعم التواصل العلمي ونقل المعرفة بين الشعوب، مما يساعد على تعزيز الوعي الصحي وتبادل المعلومات على المستوى الدولي.

ABSTRACT

This research examines the strategies utilized in rendering scientific English terminologies of COVID-19. It investigates how theses terminologies are rendered in the (Arabic version) namely; *Dictionary of COVID19 Terms* which was published online by the ALESCO the (Arab league Educational, Cultural, and Scientific Organization) 2020 during Corona Pandemic. The research also analyzes the possible reasons behind adopting the techniques. The research adopted the descriptive analytical approach with a

case study design to analyze 150 selected sample of terminologies included in the dictionary. The findings show that different strategies were adopted and utilized in translating terminologies such as one to one translation, the use of acronym, transliteration and gloss translation. The results also indicated that the gloss translation is the most translation was the most frequently used strategy, reflecting the translators intend for clarity during the health crisis. In addition, the findings found out that the pressure, the time limited to done and achieve the translation, the appearance of neologisms, and inconsistency may effect on rendering the terminologies.

Keywords : Terminologies, Strategies, COVID19 terms, Online Dictionary

Introduction

Recently, translation has a significant role in bridging the scientific knowledge among nations. This role is considered even more crucial during health crisis where the world has witnessed a rapid development of technology and science and more and more discoveries have been developed as a result of global knowledge explosion. This makes the circle of translation of the scientific and technical texts expands, therefore, the need of translating scientific texts of all domains has increased to communicate in the process of science. As science develop, new scientific terminologies of English have emerged. This development has brought numerous scientific terms to the Arabic language. The importance of rendering scientific terms becomes more evident in health crises contexts where scientific communication is urgently required to convey the information quickly to different receptors. This challenge became particularly visible during COVID-19 panamic.

By the late of 2019 the world witnessed a new disease (COVID-19) also known as the coronavirus. It is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease has since spread worldwide, leading to an ongoing pandemic bringing with it disasters that you would not have imagined. It was called the 'Corona virus', which is a derivative of the Latin 'Corona', which means the 'crown' 'التاج' 'al-taaj' in Arabic, that is why they translated as 'الفيروس التاجى' 'alvirous al-taaji' in Arabic. The virus is called the crown, but it remains a name. With the beginning of the year 2020, the virus started to

spread and it classified as pandemic disease by the World Health Organization on March 11, 2020.

During the pandemic, translators were faced with numerous challenges including limitation of time, urgency of the situation, limited standardized COVID-19 terms and the emerges of new terminologies. Therefore, translators were in a situation to adopt effective strategies that ensure clarity to both professionals and non-specialized people.

In this context, few efforts have been made from the national and international organizations. The ALESCO organization (The Arab League for Education, Science, and Culture) is considered one of the attempts to standardize the translation of the COVID-19 pandemic terminologies in online glossary known as *Dictionary of COVID-19 Terms in* 2020. This resource aims to provide translation to the scientific terminologies of COVID-19 by using different translation strategies to facilitate communication among nations.

The Dictionary of COVID -19 Terms, comes with three languages; English, French, and Arabic. It consists of 188 COVID -19 terms, starting with the English terms in the left, then the French terms, then the Arabic equivalents. The terms are organized alphabetically. Three organized indexes for the three languages; English terms, French, then the translation of Arabic terms are found at the end of the dictionary followed by ALESCO General director's speech in English, French, and Arabic.

This study investigates the strategies used in rendering the scientific terms of COVID 19. It examines how scientific terms of COVID19 are translated in the Arabic version Dictionary of the (ALESKO) the Arab League of Educational, Cultural, and Scientific Organization dictionary which was published in the time of corona virus 2020.The aim of this study is to investigate the terms that included in the Arabic version of Dictionary COVID 19 and analyze the strategies that are adopted in rendering COVID 19 terminologies and explain the reasons behind their use.

Statement of the Research:

The research statement is based on the need of understanding the nature of the strategies adopted in rendering scientific terms during COVID-19 pandemic, particularly with the emergence of new words, limited resources and time pressure. Despite ALESCO initiative existence, it is

still unclear how effective these strategies are in their accuracy and readability.

Significance of the research

This study highlights the role of translation in the conceptual context such as health crises as a quick and accurate scientific communication become necessarily. This study is also contributes on analyzing the translation strategies utilized in rendering scientific terms, this help to understand how to deal with new scientific terms particularly in health crises.

The study focuses on the translation strategies of scientific terminology of COVID 19 Terms Dictionary 2020 (the Arabic Addition) and it does not investigate other features of scientific texts. It concentrates on the strategies used in rendering COVID19 terms. The study will focus only on the English terms and on adopting strategies in rendering into Arabic.

Justification of the research

Scientific translation in general and translation of terminologies in particular is still at the margin of translation studies and only few research has been undertaken into Arabic. The main motivation for studying the scientific terms of COVID19 has sociable and academic sides. Sociably, the translation of COVID 19 into Arabic language has a crucial role on community awareness particularly during the Corona pandemic. Ordinary people are in need to know information in their language about the virus and the ways to prevent it. Academically, the study of COVID 19 terms is crucial and beneficial particularly for professionals, scholars, scientists, and specialists of translations. It provides insight into decision making when translators deal with urgent scientific discourse where clarity and accuracy are needed. This research will also participate and add Knowledge to the literature of translation studies.

The Research aim

This research aims to analyze the translation strategies used in translating scientific terminologies during COVID-19 pandemic of the ALESCO on line dictionary and assist its effectiveness in supporting the scientific communication in crises.

Research Objectives:

1- To identify the strategies used in translating the scientific terminologies in the ALESCO dictionary.
2- To Categorize the types of strategies.
3- To analyze how these strategies applied on the COVID-19 terminologies.

Research Questions

The study aims at identifying means of transfer that adopted in rendering the scientific terms of COVID- 19. The contribution of this study lays on its attempt to answer the following questions:

1- What are the strategies used in rendering scientific terms of COVID-19?
2- How often are these strategies used in translating scientific terms?
3- What are the reasons behind the chosen of the selected strategies?

Research Methodology

This research adopts a qualitative descriptive –analytical approach combined with a case study design to examine the translation strategies used in translating scientific terms during COVID-19 pandemic.

Data Collection

The research adopts a descriptive-analytical approach to investigate the translation strategies used in the Arabic rendering of COVID-19 terminology in the ALECSO online dictionary.The data of the research consist of 150 COVID-19-related terms selected through purposive sampling. The sample was intentionally selected to ensure the various categories of terminology frequently used during the pandemic. The selection criteria were based on three main considerations:

(1) the frequency of circulation of the terms in medical and public discourse during the COVID-19 pandemic;

(2) the terminological relevance of the selected items to the objectives of the research; and

(3) the representativeness of different translation strategies found throughout the dictionary.
The selected sample was considered sufficiently representative because it reflects a broad spectrum of medical terminology and translation practices within the dictionary, therefore, enhancing the reliability and validity of the analytical findings.

Data Analysis

Data in this research were analyzed by categorizing each term according to the translation approach adapted. The research relies on the following strategies:

1- One -to-one translation
2- Transliteration
3- Acronym
4- Gloss translation

Each scientific term is analyzed in terms of the type of strategy adopted, the reason behind choosing the approach , and the effectiveness in rendering meaning.

Literature Review

Many attempts have been made by translators to setup strategies and techniques in order to achieve equivalence. Equivalence is one of the main notion and the most problematic and controversial areas in the translation domain. Equivalence has been studied from three different perspectives. Firstly, those who are in favor of linguistic approach like Vinay and Darbelent (1995:38) who consider equivalence as " *replicating the same situation as original, whilst using completely different wording*". Secondly, those who regard translation equivalence as a pragmatic and functionally oriented approach. House (1977:49) for example, argues that source text and target text should match another in function. Finally, equivalence has no theoretical status; those theorists stand in the middle. Baker (1992:5-6) for example, studies the concept of equivalence from different levels. She (ibid) says equivalence is used "*for the sake of convenience because it has no theoretical status*". Other theorists like Newmark (1991) who introduces semantic and communication translation

approach; semantic translation focuses on replicating the source text forms within the target language. On the contrary, communicative translation approach focusing on influencing the reader. It focuses on the translation of the source language author's thoughts.

Scientific translation has been discussed by many western scholars. Franco Aixela (2004) discusses the history of technical and scientific translation. Gommich (1993) uses text typology in scientific and technical translation. however, few studies focus on the translation of scientific terminologies.

The language of science has developed constantly, however, Arabic cannot convoy the age of globalization as most inventions come from the west. The translation of scientific texts into Arabic is still limited and not rapid to achieve modernization and obtain update scientific and technical database.

There is a consensus among many Arab translators and scholars of translation that terminology constitutes a major obstacles in translating and finding an appropriate equivalent when translating into Arabic. Others believe that the success of the translation of the scientific text depends on the translation and the accurate rendering of its terminologies . AL-Hattab (1999), Al-kharabsha (2003), and Gharsa (2015:39).The question which raises here is, what are the reasons behind these difficulties?.

The scientific world has witnessed a rapid growth in different domains and this process required a fast transfer to the huge knowledge. Al-Hatab (1999) points out that coining a new Arabic equivalent for each term may result in some difficulties. In his opinion ,this may due to many reasons; the repaid developments in science, the lack of co-operation among Arab world to unify and produce one equivalent to the new terms, some Arab university use either French or English as a language of used in medical schools, and some terms are not available in the ordinary dictionaries and are not updated.

Gharsa (2015:21) believes materials may not helpful in many situations. According to her this may due that the terms are new or there are no direct equivalents for them in Arabic. She (ibid) refers to more than a problem that may face the translator of scientific terms. She (ibid)argues that not all scientific/medical terms can be found in bilingual dictionaries and computer-assistant. She (ibid) adds that abbreviation is considered as a

serious problem that the translator face during the process of rendering as abbreviations cannot be also found in dictionaries.

Hassan (2018) who compares the strategies adopted in translating scientific terms of two international magazines believes in using Newmark strategies ; the semantic and the communicative approach to address both the ordinary and the specialized people. According to Hassan (2018:184) describes terminology as "the key feature of scientific texts".
In order to achieve equivalence when rendering the scientific terminologies, various strategies have been set by many translators scholar. Gerhard and Wright (2001:813) for example, argue that *" the terminologist is usually focused on the designation of terms and has to consider various determining mechanisms such as affixation, prefixation, backformation, compounding, deprecation, borrowing and neologisation within specialist terms*". On the contrary, Hassan (2018) is in favor of utilizing and applying the semantic and communicative approach when translating scientific terms.

Alduhaim & Alkhaldy (2023) Focus on translation strategies in specialized discourse in their contribution, *Medical discourse translation during COVID-19 into Arabic.* The study shows that medical translators prioritize accuracy and terminological stability over stylistic variation. The findings show that the urgency of the pandemic also pushed translators toward faster, standardized solutions and direct equivalence dominates in COVID-19 terminology. This supports Newmark's semantic approach which deserves the form over the meaning.

In contrast, Halimah & Almakhyatah (2023), Compare and analyze the translated public health texts and Focus on communicative effectiveness. The study indicates high use of domestication strategy Simplification of medical terms for general audience. In addition, reduction of literal translation in favor of clarity. This explains that translation choices were influenced by audience needs, especially non-specialist readers. The priority was communicative clarity rather than formal equivalence. Their study supports Nida's dynamic equivalence theory. It is closer to public health communication strategies than academic translation

Chbab (2024), examines the translation of medical neologisms and terminology enrichment in Arabic. His study finds out that paraphrase is dominant for neologisms, borrowing used for globally recognized terms, and lack of standardized Arabic equivalents for new terms. (ibid) argues that new medical realities forced translators to create explanatory forms, leading to longer Arabic equivalents and less lexical economy. His study is more dynamic. He highlights gap in Arabic medical terminology development.

In another study conducted by Almahasees & Husienat (2024)about Terminological inconsistency in scientific translation into Arabic, the finding show that there are multiple Arabic equivalents for the same English term due to the lack of unified terminology standards and due also to the variation between institutions and countries. The main problem is not linguistic but institutional fragmentation, leading to inconsistency in scientific communication. The research aligns with terminology standardization policies.

The reviewed studies clarify a growing interest in translating medical terms particulary in the contex og COVID -19. The previews studies have also highlited challenges related to translating terminologies such as types nof strategies used and stradrization, accuracy, and comperhensability to the target readers. However there remain a need for further studies examining online dictionaries which this research seeks to address.The studies indicate a clear tendency toward terminological standardization in medical translation, particularly through one-to-one equivalence and borrowing strategies. However, differences emerge depending on audience type, institutional policies, and communicative purpose.

Terminology as a Feature of scientific text

Scientific texts have their characteristics which distinguish them from other texts. Pinchuck (1977:18-19) believes that Scientific texts are *"those service texts that are particularly concerned with the natural sciences and technology"*. Scientific text has a number of features which make them different from other texts such as its language, grammar, writing, and its style, however, this study focuses on one feature which is terminologies.

The language of scientific text is different from the literary texts. Emotive elements such as rhythm and assonance are not part of scientific language. What distinguish scientific texts according to Pinchuck (ibid) is its' vocabulary'. He (ibid) sees that scientific vocabulary is specialized and restricted aspect of language and it cannot be used in writing poetry or for everyday language. It has special particular knowledge and it is also characterized by certain volume of specialized terminology.

Scientific terms in general are described by Newmark (1991)as the central difficulty in the translation process particularly the neologisms (the new terminologies) in the source language that are out of context.

A basic translation procedure, both in the semantic and communication approaches that is more appropriate for translating words than for translating statements and texts' except in only one case and it correspondence to the meaning in the language transmitted to it.

Many scholars proposed different methods and strategies. Most of these strategies are rooted from the free and the literal translation but with different names. These strategies help the translators to outline and achieve the appropriate translation.

The discoveries of new diseases which may increase to be epidemic need to be known by professionals ,scholars, translators , and even by ordinary people who do not know such discoveries or who do not speak another language. Indeed, the only way to do so is by translation. Translation as a tool of communication enables scientists and technologists to exchange, interact, exchange views, opinions and knowledge about the latest works.

Strategies used in rendering scientific terminologies

One to One direct/literal translation

Direct /Literal translation is a translation of a text done by rendering each word separately without looking at how the words are utilized together in a phrase or a sentence. Many scholars agree that words do not and cannot work in isolation. Ghazala (1995) for example considers the relation between language and words is exactly like the relation between the human body and its parts. The body works when the body works perfectly and each part works in relation to the each part. However, "the interconnection of words does not always result in a new combination and a different, indirect meaning of them" .

In many situation. Words like scientific terms can keep their direct meaning if an equivalence is found in the target language. In other words, direct translation is possible and acceptable.

Direct translation is frequently used in scientific translation specially in rendering scientific terminologies. Consider the following examples,

Antiviral drug	مضاد للفيروسات
Behavioral therapy	علاج سلوكى
Care	رعاية
Case report	تقرير الحالة

Direct translation can cause inconsistency in translation. Means using different translations for the same source language term throughout the text or across relevant texts. Rogers (2008) points out that terminological inconsistency can be translated as the same referent e.g., synonyms, orthographic variants and geographical variants in the same text or set of related texts, as well as hyponyms. In Arabic , many translated terms are lost in translation because of the lack of standardization. In Maghreb countries which are influenced by French language, for example, they use السيدا 'Al-Sida' as an equivalent for AIDS whereas in eastern Arab countries, they use ايدز 'AIDS' because they influenced by English. Some scholars believe that creating more than one equivalent to the term makes the term hedging. Others consider that using different equivalents to the term is a good method, especially when these equivalents are used for illustration and more explanations.

Transliteration الرسم اللفظى/ النقحرة

Transliteration is one of the translation strategies that is used to transfer the meaning from the (SL) source language to the (TL) target language. This strategy is considered as the easiest way to render the scientific terms specially when an equivalent is not exist in the target language It can be defined as the process of writing the term of the SL with the TL letters. Ghazala (1:1995) defines transliteration as "*new words for which no equivalent in Arabic before*". When no equivalent in the TL is found, transliteration is the preferred method to be adopted. Transliteration follows the phonetic rules of the target language. Transliterated words are often naturalized to fit the structure of the target language. He (ibid) refers to the process of transliteration is " *to take the English term and adopt it to Arabic alphabet and grammar, by changing one or two of its letters into*

Arabic once, and having singular, plural, masculine, feminine or verb forms of it".

In other words, translators use some phonetic and morphological changes to the English term in order to assimilate the Arabic language, Ghazala (1995). Naturalization of loanwords refers to the addition of some affixes to the foreign words without changing their roots. The affixes are added to assimilate the nature of the Arabic language:

Biology (adj) بيولوجيا
Biologist (n) بيولوجى (اخصائى بيولوجيا)
Biologists (n/plural) بيولوجيون/بيولوجيات
Biologically (adv) بيولوجيا

However, this strategy is not in favor to other translators like Baker (1987) . Transliteration and naturalization are rejected because the English term is still as it is without an Arabic equivalent. In other words, these strategies do not explain the meaning of the words in Arabic, do not enrich the Arabic vocabularies, and Arabization cannot be achieved.

Translation by using acronyms/abbreviations

Scientific text tends to use abbreviation and acronyms heavily to account for many terms. Ghazala(1993:193) defined acronyms as 'The abbreviation of words into their first letters which are always capital". Richard and Hohulin (1982:27) distinguish between abbreviation and acronyms. They define abbreviation as "a shortened form of a word or phrase, but not necessarily only the initial letter or letters". However, acronym from their perspective is "a lexical unit made by combining the initial letter or letters of each of the elements making up the complex lexical units". Acronym is the abbreviation of words into their first letters which are always capital. (some acronyms are transcribed as words, others as letters).

Acronyms /abbreviations can cause barriers if they account for different meaning. The abbreviation 'B' for example can be used in the microbiology domain without mentioning to what it refers to. This will create ambiguity in translating because it may be abbreviation of a number of types of Bactria as Bactericides, or Bedllovibrio. In addition, many acronyms and abbreviations cannot be existed in ordinary dictionaries and

less popular acronyms/abbreviations may require full translation of meaning. Ghazala 196-198).

FFP2 mask	قناع FFP2
mRNA-1273 vaccine	mRNA-1273 لقاح
N95 respirator	N95 منفاس
BCG vaccine	لقاح بى سى جى

Gloss Translation

Glossary is defined as an alphabetical list of words relating to a specific subject, text , or dialect, with explanations; a brief dictionary.(oxford dictionary). The giving of the additional information to the target language reader in a foot-note or within the text to explain an idea, name, cultural word or a technical word. Jaber (2005). Baker,2018;and Newmark, (1988) define gloss translation as a strategy used when new words are emerged and require clarification rather than direct translation.

1- The term *Ventilator* for example is translated into جهاز يساعد على التنفس as it explains the function of the device.
2- *Contact Tracing* is translated into تتبع المخالطين the gloss translation strategy is used as there is no direct equivalent is existed. Therefore more explanation is given, متابعة الأشخاص

الذين خالطوا المصاب. These examples illustrate the use of gloss translation strategy, where the meaning is explained rather than translated literally in order to ensure clarity.

Research Gap

Despite many studies have studied terminologies and their translations, there remains a significant gap in examining translation strategies used resources as the ALESCO online dictionary. These studies overlook the effect of crisis situations on the strategy selection. Therefore, this research aims to analyze the translation strategies adopted in rendering COVID-19 terms during the health crisis.

Findings of the Research

This section discusses and analyzes with examples the findings of the research. It focuses on identifying the translation strategies that are

adopted in rendering terms of COVID19. The percentage is offered in order to show the frequency use of the strategies utilized.

Table (1) The frequency and the percentage of translation strategies adopted in translating COVID 19 terms of ALESCO Dictionary.

Translation Strategy	Frequency	Percentage
One to one direct translation	55	36.7%
Transliteration	18	12%
Acronyms/abbreviation	17	11.3%
Gloss translation	60	40%
Total	150	100%

The research analysis of 150 selected terms shows that the Gloss strategy is the most frequent adapted strategy (40%). This explain the need to clarify the new terms during the pandemic crises. One- to- one translation appears highly used by the translators (36.7%). This indicates the availability of equivalence between Arabic and English. In contrast, transliteration (12%) and acronym strategies (11.3%) are less frequent and they are limited to technical and international standardized terms.

Use of One to one (direct translation)

One to one translation is frequently used. It is used (36.7%). Arabic equivalent is adopted to many COVID- 19 terms as many terms have an equivalent in Arabic and they did not constitute any problem as in table (1). This shows that Arabic has a s strong foundation in some scientific terminologies.

Table (2): Examples of one to one direct translation are:

English term	Arabic translation
Artificial respiration	تنفس اصطناعى
Isolation	عزل
Mask	قناع
Close contact	مخالطة مباشرة
Confirmed case	حالة مؤكدة
Contagious	معد
Diagnosis	تشخيص
Dry cough	سعال جاف
Epidemic	وباء

Germ	جرثومة
Gloves	قفازات
Health crises	ازمة صحية
Home isolation	عزل منزلى
Immunity	مناعة
Vaccine	لقاح
Pandemic	جائحة
Out break	تفش
Sterilization	تعقيم
Surgical mask	قناع جراحى
Test	اختبار

However, one to one direct translation is not always the right choice. The term 'herd immunity' for example if translated literary in Arabic will give the meaning of 'مناعة القطيع' which will be culturally rejected as it gives a negative connotation in Arabic. The term 'herd' if translated into Arabic 'القطيع' means a 'group of sheep'. The term is successfully rendered into 'مناعة جماعية'.

English term	Arabic term
Herd immunity	مناعة جماعية

Use of Transliteration Strategy

Transliteration Strategy is relatively limited(12 %). It is noticed that this strategy is not used widely if it is compared with one to one direct translation strategy. The term 'Corona pandemic' when appeared for the first time for example is rendered into various names by using transliteration strategy such as, مرض كورونا ' كورونا' كورونا فايروس although an Arabic equivalence is found to this term later and rendered in many positions into 'الفيروس التاجى المستجد'.

Table 3: Examples of transliteration strategies are:

English term	Arabic Translation
COVID 19	كوفيد19
Genome	جينوم
Pangolin	بنغول
Chloroquine	كلوروكين
Corona virus	فيروس كورونا
Remdesiuir	ريمدييسفير
Hydroxychloroquine	هيدروكلوروكين
Virus	فيروس

Some COVID-19 terms are often transliterated and naturalized to assimilate the structure of the target language by adding some affixes. The term 'genome' is transliterated into جينوم ومجين the term 'germ' translated into جرثومة as a noun to suit the Arabic rules. The term 'jennerization' is also naturalized تجنيز to the Arabic noun. Furthermore, many terms of the Dictionary of COVID-19 Terms were rendered into a combination between Arabic and English terms as following:

English term	Arabic translation
Blood plasma	بلازما الدم

Use of Acronyms and Abbreviations

In the Dictionary of COVID-19 terms are kept in English form specially the name of some medicine and some diseases. Keeping the same abbreviations in Arabic may lead to different understanding and may create different translations; the term 'FFP2 mask' for example can be translated into جهاز تنفسى ترشيحى للوجه او منفَس ترشيحى للوجه however, many terms are kept with their English abbreviations, and this may cause ambiguity and misunderstanding to the term as following:

Table (5): Examples of using Acronyms and Abbreviations

English term	Arabic translation
FFP2 mask	قناع FFP2
mRNA-1273 vaccine	لقاح mRNA-1273
N95 respirator	منفاس N95
BCG vaccine	لقاح بى سى جى

However, some abbreviations in English are omitted and are given a full term when translated into Arabic.

English term	Arabic term
Upper Respiratory Tract Infection (URTI)	عدوى الجهاز التنفسي العلوي

In the time of Corona, transliteration is one of the strategies were widely used and adopted by many translators particularly when new Corona disease terms emerged like an endless stream. The term 'Corona

Pandemic' ' جائحة كورونا' when its first appear for example is rendered into various names by using transliteration strategy. The term is translated into; 'كورونا', ' الفيروس التاجى', 'كورونا المستجدة', 'مرض كورونا', 'كورونا فايروس ', 'المستجد'. Then an acronym was adopted in English to refer to the disease as ' COVID-19', the letters 'CO' is an abbreviation to the term 'Corona', 'VI' goes for the term virus, 'D' refers to the term disease, and '19' for the year when the pandemic broke-out. The term is rendered into Arabic to ' كوفيد – 19' and 'جائحة كوفيد -19'. With the use of transliteration strategy.

The use of Gloss Translation

The research analyses indicate that gloss translation strategy is highly used in rendering COVID-19 terminology. the Gloss strategy is the most frequent adapted strategy (40%). This explain the need to clarify the new terms during the pandemic crises.

Table (6): Examples of Gloss Translation

كوفيد-19	Infectious respiratory disease caused by coronavirus
فيروس SARS-CoV-2	Virus responsible for COVID-19 pandemic
جائحة	Global outbreak of a disease affecting many countries

Gloss translation is highly used in translating COVID-19 pandemic for many reasons. First, most of COVID-19 terminologies are technical and cannot be understood without explanations. Therefore, gloss translation fits these complex concepts. Secondly, Arabic terms are not standardized, this forces the translators to use explanations. Thirdly, Neologisms, the new terms may make the direct translation impossible. furthermore, gloss translation is preferred as it is useful to general public not just experts. Finally, some words require explanations to fit the cultural concepts.

It has been noticed that various translation strategies are used and in many times, a combination of two or three translation strategies are adopted. One finding of the research is that the choice of translation strategy depends on the availability of the equivalence in the target language. Rendering scientific terms out of a context is considered a tough mandate as the context is important to determine the translation strategy. Scientific texts are usually classified as an informative text. According to Newmark

(1991) communicative translation (communicative translation focuses on the' equivalent effect'. In other words, the target language reader receives the same effect of the source language reader) is preferred in translating scientific texts as they are informative.

The dictionary of COVID-19 utilized the most common equivalent Arabic terms which are understandable and fulfill the terminological function of the language. One of the dictionary of COVID-19 is the concurrency and clarity. The dictionary is avoided to translate the term 'herd immunity' into 'مناعة القطيع' and substituted it into the Arabic term 'عدوى جماعية'.

The use of more than one synonyms. Most COVID-19 English terms when translated into Arabic produced more than one meaning. The multiplicity of meaning of terms is in many times a terminological problem that makes the Arabic language unable to control the boundaries of the term and does not determine the discriminatory value of any of them. However, some translators consider it as a positive solution and that is an acceptable thing if its purpose is to explain and clarify the term. Therefore, Using of acronyms and abbreviation may lead to the ambiguity and un clarity to the English term particularly without given explanations or interpretation to the term as the dictionary will be used by different specialists. Therefore, standardizing terminology is important to reduce terminological differences that results from the use of different terms or several terms of one concept.

The research investigates the strategies adopted in rendering the COVID-19 terminologies of ALESC Dictionary. The results shows that translation during health crises is a communicative activity and the choice of approaches is influenced by many elements such the urgency of COVID-19 health crisis required quick translation. Audience needs influenced the choice of strategies adopted. Finally, the limited availability of resources during COVID-19 affected the choice of translation strategies.

Discussion Qualitative Analysis

The research findings showed that the translation strategies used in the COVID-19 dictionary issued by the Arab League Educational, Cultural and Scientific Organization are not limited to the descriptive or categorical aspect, but rather reflect translation choices related to the nature of medical

discourse and the context of the pandemic, which has been characterized by speed and constant change.
It can be seen that the direct equivalence strategy One-to-One Equivalence was the most common, especially in terms that have stable interviews in Arabic. For example, the translation epidemic → وباء was adopted without any modification, because the term has become part of the stable medical lexicon in the Arabic language, making direct transmission the most accurate and effective option. This approach reflects the dictionary's commitment to achieving terminological uniformity and scientific clarity in medical discourse.

In contrast, explanatory translation (Paraphrase) appears in cases where it lacks a direct counterpart or where the conceptual structure of the term is complex or metaphorical. An example of this is the term flattening the curve تسطيح المنحنى, where an interpretive translation was chosen that conveys the scientific meaning of the epidemiological concept associated with reducing the rate of spread of infection. However, this type of translation, although effective in conveying meaning, may lead to the loss of the element of linguistic economy, which is an important element in medical discourse that requires accuracy and brevity.

Some terms conveyed by using borrowing الاقتراض such as PCR → PCR reflect the nature of global scientific terminology that has come to be used uniformly across languages without translation, as a result of the dominance of English scientific discourse in the medical field. However, over-reliance on borrowing may limit the clarity of the term to a non-specialist reader.

On the other hand, the results reveal that the choice of translation strategy is not made in isolation from the context, but rather is influenced by several factors, including the degree to which the term is firmly established in the target language, the nature of the target audience, and the speed with which the terms are used during the pandemic. This is consistent with what Peter Newmark pointed out about the necessity of balancing semantic translation and communicative translation according to the nature and function of the text.

In addition, these findings can be linked to the approach of localization and Westernization in translation, where some terms tend to localize by presenting a clear and understandable Arabic equivalent e.g., contact tracing تتبع المخالطين, while other terms retain their foreign character through borrowing or direct use, reflecting a duality in translation strategy within the same lexicon.

The challenges associated with translating epidemiological terms during the COVID-19 pandemic are the rapid emergence of concepts, which has forced translators to resort to flexible strategies that combine scientific accuracy and ease of understanding. This explains the diversity of strategies used within the lexicon, and the lack of reliance exclusively on one strategy. Therefore, qualitative analysis demonstrates that the choice of strategies was not arbitrary, but rather the result of an interaction between linguistic, conceptual, and contextual factors, ultimately aiming to achieve a balance between scientific accuracy and ease of communication with the reader.

The discussion findings illustrate that the translation strategies utilized in the COVID-19 dictionary published by (ALESCO) the Arab League Educational, Cultural and Scientific Organization were not arbitrary, but rather influenced by linguistic, contextual, and institutional factors aimed at balancing scientific accuracy with communicative clarity. The study also revealed the dominance of strategies such as one-to-one equivalence and borrowing, alongside the use of gloss strategy in rendering newly emerging or conceptually complex terms. These findings highlight the importance of terminological standardization and the role of specialized institutions in developing Arabic medical discourse, particularly in the context of global health crises and the rapid evolution of medical terminology. However, time constraints and pressure associated with the rapid spread of the COVID-19 may have effected the translators' decitions which leading them to use gloss translation in certain cases.

Limitation of the Research

This research is limited to the analysis of Alesco terms found in online dictionary published by ELESCO, which may restrit the gernalizability of the findingsto the other medical translation resources or specialized dictionaries. The research investigates 150 COVID-19 terminologies without any comparison with other dictionariesor other medical institutions. This research provides indicative perspectivesrather than generalizable results. Furture research may benifet from expanding the terminologies and comparing other trcources to obtain more results.

Conclusion

The study investigates the translation strategies utilized in rending the dictionary of COVID-19 terms. It concludes that various translation strategies are adopted and very often a combination between two or three translation are used. However, the translation of COVID-19 terms depends heavily on gloss translation to interpret and explain the terms. This indicated a clear tendency for clarity and understanding of the terms. In addition, the research demonstrate that the translation practices during the crises have influenced with different elements such as time pressure, limited availability of resources, neologisms, This elements shaped translators decision towards the Gloss translation. The research confirms the role of translation for scientific communication during the health crises

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Appendixes
List of COVID-19 Terms

1. One-to-One Translation (55 terms)

Pandemic	جائحة
Vaccine	لقاح
Quarantine	الحجر الصحي
Mask	كمامة
Infection	العدوى
Virus	فيروس
Fever	الحمى
Cough	السعال
Fatigue	التعب
Headache	الصداع
Symptoms	الأعراض
Testing	الفحص
Isolation	العزل
Case	حالة
Mortality	الوفيات

Transmission	انتقال
Contagious	معدٍ
Disinfection	التعقيم
Soap	الصابون
Gloves	القفازات
Sanitizer	مطهر
Outbreak	تفشٍ
ICU	وحدة العناية المركزة
Hospital	مستشفى
Doctor	طبيب
Nurse	ممرض
Patient	مريض
Medicine	دواء
Treatment	علاج
Diagnosis	تشخيص
Health	صحة
Safety	سلامة
Prevention	وقاية
Immunity	مناعة
Recovery	تعافي
Screening	فحص
Contact	مخالط
Spread	انتشار
Emergency	طوارئ
Protection	حماية
Clinic	عيادة
Vaccine dose	جرعة لقاح
Booster	جرعة معززة
Antibody	جسم مضاد
Antigen	مستضد

2. Transliteration (15 terms)

COVID-19	كوفيد-19
SARS	سارس
MERS	ميرس

PCR	بي سي آر
RNA	آر إن إيه
DNA	دي إن إيه
Flu	فلو
Ebola	إيبولا
Omicron	أوميكرون
Delta	دلتا
Pfizer	فايزر
Moderna	موديرنا
AstraZeneca	أسترازينيكا
Virus	فيروس
WHO	(دبليو إتش أو (أحيانًا

3. **Acronyms (15 terms)**

PCR Test	اختبار PCR
R0	عدد التكاثر الأساسي
PPE	معدات الوقاية الشخصية
ICU	وحدة العناية المركزة
WHO	منظمة الصحة العالمية
CDC	مركز مكافحة الأمراض
RT-PCR	اختبار RT-PCR
EUA	ترخيص طارئ
SOP	إجراءات تشغيل قياسية
CFR	معدل الإماتة
CT value	قيمة CT
N95	كمامة N95
SARS-CoV-2	فيروس SARS-CoV-2

Gloss Translation Terms (COVID-19) (60) terms

اختبار PCR	Test used to detect viral genetic material
كوفيد-19	Infectious respiratory disease caused by coronavirus

فيروس SARS-CoV-2	Virus responsible for COVID-19 pandemic
جائحة	Global outbreak of a disease affecting many countries
متوطن	Disease regularly found in a specific area
وباء	Rapid spread of disease within a region
لقاح	Substance that stimulates immunity against disease
جرعة معززة	Additional vaccine dose to strengthen immunity
جسم مضاد	Protein produced by immune system to fight infection
مستضد	Substance that triggers immune response
مناعة	Body's ability to resist infection
مناعة القطيع	Protection when many people become immune
الحجر الصحي	Isolation of exposed individuals to prevent spread
العزل	Separation of infected persons from others
إغلاق كلي	Restriction of movement during outbreak
التباعد الاجتماعي	Keeping physical distance to reduce transmission
كمامة	Protective covering for nose and mouth
معدات الوقاية الشخصية	Equipment used to protect against infection
جهاز تنفس صناعي	Machine that supports breathing in severe cases
علاج بالأكسجين	Treatment providing extra oxygen to patients
الأعراض	Signs indicating presence of disease
بدون أعراض	Infected without showing symptoms
مصحوب بأعراض	Showing signs of illness

الحمى	Elevated body temperature due to infection
السعال	Reflex to clear airways
التعب	Extreme tiredness or weakness
فقدان التذوق	Inability to taste food or drinks
فقدان الشم	Inability to detect
ضيق تنفس	Difficulty in breathing
الفحص	Medical examination to detect infection
اختبار سريع	Test that gives quick results
اختبار تشخيصي	Test used to confirm disease
تتبع المخالطين	Identifying people exposed to infected individuals
انتقال مجتمعي	Spread of disease within a population
تفشٍ	Sudden increase in disease cases
حالة	Individual infected or diagnosed
حالة مؤكدة	Lab-confirmed infection
حالة مشتبه بها	Person suspected of infection
فترة الحضانة	Time between infection and symptoms
الحمل الفيروسي	Amount of virus in infected person
طفرة	Genetic change in virus structure
متغير	Different form of virus
إعادة عدوى	Getting infected again after recovery
انتقال	Spread of virus between individuals
معدل الوفيات	Percentage of deaths among infected
معدل الإماتة	Proportion of deaths among confirmed cases
COVID-19	كوفيد-19
SARS-CoV-2	فيروس SARS-CoV-2
Pandemic	جائحة
Endemic	متوطن
Epidemic	وباء
Vaccine	لقاح
Booster dose	جرعة معززة

Antibody	جسم مضاد
Antigen	مستضد
Immunity	مناعة
Herd immunity	مناعة القطيع
Quarantine	الحجر الصحي
Isolation	العزل
Lockdown	إغلاق كلي
Social distancing	التباعد الاجتماعي
Mask	كمامة
PPE	معدات الوقاية الشخصية
Ventilator	جهاز تنفس صناعي
Oxygen therapy	علاج بالأكسجين
Symptoms	الأعراض
Asymptomatic	بدون أعراض
Symptomatic	مصحوب بأعراض
Fever	الحمى
Cough	السعال
Fatigue	التعب
Loss of taste	فقدان التذوق
Loss of smell	فقدان الشم
Shortness of breath	ضيق تنفس
Testing	الفحص
Rapid test	اختبار سريع
Diagnostic test	اختبار تشخيصي
Contact tracing	تتبع المخالطين
Community transmission	انتقال مجتمعي
Outbreak	تفشٍ
Case	حالة
Confirmed case	حالة مؤكدة
Suspected case	حالة مشتبه بها
Incubation period	فترة الحضانة
Viral load	الحمل الفيروسي
Mutation	طفرة
Variant	متغير
Reinfection	إعادة عدوى

Transmission	انتقال
Mortality rate	معدل الوفيات
Case fatality rate	معدل الإماتة
Swab test	مسحة
Screening	فحص
Hospitalization	دخول المستشفى
ICU	العناية المركزة
Medical staff	الطاقم الطبي
Emergency response	استجابة طارئة
Public health	الصحة العامة
Infection control	مكافحة العدوى
Disinfection	التعقيم
Sanitizer	معقم
Travel ban	حظر السفر
Vaccine passport	جواز اللقاح
Second wave	الموجة الثانية
Flatten the curve	تسطيح المنحنى