



**UNIVERSIDAD  
DE ATACAMA**

FACULTAD DE HUMANIDADES  
Y EDUCACIÓN

**Departamento de Idiomas**

FACULTAD DE HUMANIDADES Y EDUCACIÓN  
DEPARTAMENTO DE IDIOMAS

**ANÁLISIS COMPARATIVO DE LA TRADUCCIÓN AUTOMÁTICA DE TEXTOS  
DIVULGATIVOS, TÉCNICOS, CIENTÍFICOS Y LITERARIOS; IMPLICACIÓN EN  
LA EVALUACIÓN Y PERCEPCIÓN DE ÉXITO.**

Trabajo de titulación presentado en conformidad a los requisitos para obtener el grado de  
Licenciado en Idioma Inglés y Título de Traductor Inglés-Español

Profesor Guía: Mg. Didier Aguilar

Camila Andrea Pérez Milla

Valentina Paz Pérez Milla

John Michael Araya Perales

Gary Leonel Quispe Gutiérrez

Copiapó, Chile 2022



**UNIVERSIDAD  
DE ATACAMA**

FACULTAD DE HUMANIDADES  
Y EDUCACIÓN

**Departamento de Idiomas**

FACULTAD DE HUMANIDADES Y EDUCACIÓN  
DEPARTAMENTO DE IDIOMAS

**COMPARATIVE ANALYSIS OF MACHINE TRANSLATION OF  
INFORMATIONAL, TECHNICAL, SCIENTIFIC AND LITERARY TEXTS;  
PERCEPTIONS OF SUCCESS AND IMPLICATIONS FOR EVALUATION.**

A Research Project submitted to fulfillment of the requirements to obtain the degree of  
Licenciado en Idioma Inglés and degree of Traductor Inglés-Español

Academic Advisor: Mg. Didier Aguilar

Camila Andrea Pérez Milla  
Valentina Paz Pérez Milla  
John Michael Araya Perales  
Gary Leonel Quispe Gutiérrez

Copiapó, Chile 2022



## Acknowledgments

I want to express a heartfelt thank you to all my professors who taught me and guided me to be a great translator. I would like to express my profound feeling of gratitude to my academic advisor Didier Aguilar who supported us, accompanied us and never abandoned us during this entire process. I am also thankful to my partners John, Gary and Valentina. We suffered, but we were constant, and at least we had a few laughs (maybe too many). I acknowledge with deep gratitude the support of my family and my lovely dogs (Daryl, Daenerys, Jon, Glenn, Arya, Beth, Aegon, and Gilbert). My mom was always supporting me and loved me. My brother helped me with the stress by always recommending a new anime to watch and for believing in me. I also want to deeply thank my sister with whom I carried out this project, we support each other, fight, and laugh together. And of course I want to dedicate this victory to the memory of my father, who would be very proud of his two daughters.

*Camila Andrea Pérez Milla*

At this special moment, I want to express my sincere gratitude to all my professors who taught me by sharing with me their love for translation and languages. To my academic advisor Didier Aguilar, to whom I am truly grateful for believing in me and in this group. He accompanied us in every moment to form this research by guiding and supporting us. I am also very grateful to my teammates John, Gary and Camila who accompanied me during this process in which we learned a lot from each other and seeing the results I know that we did an incredible job, so for me, they were definitely the best team. I especially thank my mother, my brother and my sister, who are very important to me and always support me, trust me and give me their love. They are always by my side making me very happy, I appreciate all the moments with my family. To my pets who are my mental and emotional supports, I am very grateful to them for being part of my family and bringing happiness to my life. Finally, I dedicate this and all the successes I have to the memory of my father, who supported me unconditionally with his love. I know he would be really proud of the accomplishments we are making as a family.

*Valentina Paz Pérez Milla*

It has been a whole of a journey. Even though, as I write this, all the memories fly by in a blink of an eye. I guess I have been lucky. I have been lucky of finding in my way so many valuable people that cluelessly helped me get through the years. That also gave me the opportunities and experiences I did not know I needed to grow new goals and to understand how to take advantage of the difficulties that I would endure during my time at the university.

I am deeply grateful to Camila and Valentina for putting their trust in me and allowing me to be part of this team in this important work. Thank you for having so much patience and trusting in my capabilities. I enjoyed your company and drive during this year.

It would not have been the same without Gary, a companion of study, adventures and laughter who surprisingly had the patience to put up with my temper throughout so many years of friendship.

To every teacher that took the time to help me out, give me advice or acknowledge my efforts, thank you, believe me when I say I will not forget you nor what you taught me.

Words are not enough to express my gratitude to my family for allowing me to follow the paths I have chosen, for respecting my decisions, and for always supporting me, no matter what these were. Love you all.

*John Michael Araya Perales*

When starting this project I did not think that I would really get this far, however every event in my life led me to this, and therefore I know that this would not have been possible without the help of so many people, I would not have enough space or time to thank each of them, but I will try.

First of all, I would like to thank the teachers, not only for their help during this work, but for all their support during these years at the university. From the first day I could perceive the quality and commitment of each teacher, and without them, I would not have been able to get where I am now, for that and more, thank you. To our tutor, Didier Aguilar, who knew how to advise us when we needed it and who knew how to give us the necessary motivation to complete this work, without you this would not have been possible.

Words are not enough to express how grateful and happy I was during this process thanks to John, Camila and Valentina, whom without a doubt are some of the best people I could have met. Besides, their quality as students was always an inspiration that encouraged me to keep going.

And especially thanks to my family, who supported me and showed their pride during every stage of my life, none of this would have been possible without you, thanks to my father who always told me the right words at the right time, as this helped me in some of the most difficult moments of my life. Thanks to my mother for always supporting me no matter what, thanks to my grandmother and my aunts, who always showed their interest in my process and did not hesitate to help me when I needed it.

I would not be the same person if it were not for my grandfather, so I would like to dedicate this triumph to him, I know he would be extremely proud.

*Gary Quispe Gutierrez*



## Contents

<b>Abstract</b>	17
<b>Chapter 1 Introductory Framework</b>	18
1.1 Introduction	18
1.1.1 Motivation	20
1.1.2 Aims	20
1.1.3 Research questions	20
1.2 Statement of the Problem	20
1.2.1 The accuracy of machine translation	23
1.2.2 The obstacles of machine translation	25
1.2.3 Hypothesis	25
1.3 Main objective	27
1.4 Specific objectives	27
<b>Chapter 2 Theoretical Framework</b>	29
Theoretical Framework	29
2.1 Human translation vs Machine translation	29
2.1.1 Human translation	29
2.1.2 Translation competence	30
2.1.3 CAT Tools	31
2.1.4 Machine Translation	32
2.2 Translation Errors	34
2.2.1 Translation quality assessment	34
2.2.2 A good translation	35
2.2.3 ATA and CIOL	36
2.2.4 Localization	39
2.2.5 Neutral Spanish	40
2.3 Text types	41
2.3.1 Corpus	41
2.3.2 Specialized Translation	42
2.3.3 Informative Texts	42
2.3.4 Literary Texts	43
2.3.5 Technical Texts and Scientific Texts	43
<b>Chapter 3 Methodological framework</b>	45
Methodological framework	45

3.1 Type of research	45
3.2 Instruments for research	46
3.3 Analysis development	47
3.4 Survey development	55
<b>Chapter 4 Analysis</b>	57
4.1 ANALYSIS	57
4.2 ANALYSIS OF THE CORPUS	58
<b>4.3 Informative texts</b>	58
<b>Text #1</b>	58
• Holistic Approach (Translation made by DeepL)	61
• Analytical Method (Translation made by DeepL)	62
• Holistic Approach (Translation made by Google)	67
• Analytical Method (Translation made by Google)	68
• Holistic Approach (Translation made by Yandex)	72
• Analytical Method (Translation made by Yandex)	73
<b>Text #2</b>	78
• Holistic Approach (Translation made by DeepL)	81
• Analytical Method (Translation made by DeepL)	82
• Holistic Approach (Translation made by Google)	84
• Analytical Method (Translation made by Google)	85
• Holistic Approach (Translation made by Yandex)	88
• Analytical Method (Translation made by Yandex)	89
• Summary	93
<b>4.4 Technical Texts</b>	95
<b>Text #1</b>	95
• Holistic Approach (Translation made by DeepL)	97
• Analytical Method (Translation made by DeepL)	98
• Holistic Approach (Translation made by Google)	101
• Analytical Method (Translation made by Google)	102
• Holistic Approach (Translation made by Yandex)	105
• Analytical Method (Translation made by Yandex)	106
<b>Text #2</b>	110
• Holistic Approach (Translation made by DeepL)	113
• Analytical Method (Translation made by DeepL)	114
• Holistic Approach (Translation made by Google)	116
• Analytical Method (Translation made by Google)	117

• Holistic Approach (Translation made by Yandex)	120
• Analytical Method (Translation made by Yandex)	121
•Summary	124
<b>4.5 Scientific Texts</b>	126
<b>Text #1</b>	126
• Holistic Approach (Translation made by DeepL)	128
• Analytical method (Translation made by DeepL)	129
• Holistic Approach (Translation made by Google)	131
• Analytical method (Translation made by Google)	132
• Holistic Approach (Translation made by Yandex)	134
• Analytical method (Translation made by Yandex)	135
<b>Text #2</b>	138
• Holistic Approach (Translation made by DeepL)	140
• Analytical method (Translation made by DeepL)	141
• Holistic Approach (Translation made by Google)	143
• Analytical method (Translation made by Google)	144
• Holistic Approach (Translation made by Yandex)	146
• Analytical method (Translation made by Yandex)	147
•Summary	149
<b>4.6 Literary texts</b>	150
<b>Text #1</b>	150
• Holistic Approach (Translation made by DeepL)	154
• Analytical Method (Translation made by DeepL)	155
• Holistic Approach (Translation made by Google)	161
• Analytical Method (Translation made by Google)	162
• Holistic Approach (Translation made by Yandex)	168
• Analytical Method (Translation made by Yandex)	169
<b>Text #2</b>	175
• Holistic Approach (Translation made by DeepL)	177
• Analytical Method (Translation made by DeepL)	178
• Holistic Approach (Translation made by Google)	181
• Analytical Method (Translation made by Google)	182
• Holistic Approach (Translation made by Yandex)	185
• Analytical Method (Translation made by Yandex)	186
•Summary	190
<b>4.7 Survey Analysis</b>	192

Informative Text	192
Technical Text	194
Scientific Text	196
Literary Text	198
<b>5 Conclusion</b>	200
5.1 Findings	200
5.1.1 Answer to the first research question	200
5.1.2 Answer to the second research question	200
5.1.3 Answer to the third research question	201
5.1.4 Answer to the fourth research question	201
5.2 Results and discussions	202
5.3 Limitations	205
<b>References</b>	206
<b>ANNEXES</b>	210
<b>1 Text analysis</b>	210
1.1 Informative texts	210
Text #1	210
Text #2	212
1.2 Technical Texts	214
Text #1	214
Text #2	216
1.3 Scientific Texts	219
Text #1	219
Text #2	220
1.4 Literary texts	222
Text #1	222
Text #2	224
<b>2 Survey Model</b>	228
2.1 Phase 1: Parallel corpus of informative text	228
2.2 Phase 2: Parallel corpus of technical text	233
2.3 Phase 3: Parallel corpus of scientific text	238
2.4 Phase 4: Parallel corpus of literary text	243
2.5 Phase 5: Machine translators questions	248
<b>3 Survey Results</b>	249
Survey Results: informative text	249
Survey Results: technical text	250

Survey Results: scientific text	252
Survey Results: literary text	253
Survey Results: machine translators questions	255
<b>4 Survey Validation</b>	256

## **List of abbreviations and acronyms used**

MT: Machine Translation

RBMT: Rule-based machine translation

SMT: Statistical machine translation

NMT: Neural machine translation

HT: Human translation

CAT: Computer-Assisted Translation

MQM: Multidimensional Quality Metrics Error Typology

TQA: Translation Quality Assessment

TC: Translator Competence

PACTE: Process of the Acquisition of Translation Competence and Evaluation

ICT: information and communication technologies

ATA: American Translators Association

CIOL: Chartered Institute of Linguists

LISA: Localization Industry Standards Association

EAGLES: Expert Advisory Group on Language Engineering Standards

CertTrans: Certificate in Translation

UN: United Nations

ONU: Organización de las Naciones Unidas

OTAN: Organización del Tratado del Atlántico Norte

UNESCO: United Nations Educational, Scientific and Cultural Organization

HD: High-definition

ST: Source Text

TT: Target Text

OTH-ME: Other Errors

OTH-MT: Other Meaning Transfer Errors

## List of tables and figures

- Figure 1. ATA Framework for standardized error marking
- Figure 2. Analysis Procedure
- Figure 3. Analysis
- Figure 4. Students rating of the four translators for informative texts
- Figure 5. Students rating of the four translators for technical texts
- Figure 6. Students rating of the four translators for scientific texts
- Figure 7. Students rating of the four translators for literary texts
- 
- Table 1. Parallel corpus
- Table 2. Holistic approach by CIOL for Certificate in Translation (CertTrans)
- Table 3. Analytical method for DeepL translation
- Table 4. Analytical method for Google translation
- Table 5. Analytical method for Yandex translation
- Table 6. ATA errors and their frequency
- Table 7. Parallel corpus of “Libya: new suspected mass graves found in Tarhuna, says UN human rights probe”
- Table 8. Holistic Approach for DeepL translation (Informative text)
- Table 9. Analytical Method: parallel corpus of DeepL translation
- Table 10. Analytical Method: parallel corpus of DeepL translation
- Table 11. Analytical Method: parallel corpus of DeepL translation
- Table 12. Analytical Method: parallel corpus of DeepL translation
- Table 13. Analytical Method: parallel corpus of DeepL translation
- Table 14. Analytical Method: parallel corpus of DeepL translation
- Table 15. Analytical Method: parallel corpus of DeepL translation
- Table 16. Analytical Method: parallel corpus of DeepL translation
- Table 17. Holistic Approach for Google translation (Informative text)
- Table 18. Analytical Method: parallel corpus of Google translation
- Table 19. Analytical Method: parallel corpus of Google translation
- Table 20. Analytical Method: parallel corpus of Google translation
- Table 21. Analytical Method: parallel corpus of Google translation
- Table 22. Analytical Method: parallel corpus of Google translation

Table 23.	Analytical Method: parallel corpus of Google translation
Table 24.	Analytical Method: parallel corpus of Google translation
Table 25.	Holistic Approach for Yandex translation (Informative text)
Table 26.	Analytical Method: parallel corpus of Yandex translation
Table 27.	Analytical Method: parallel corpus of Yandex translation
Table 28.	Analytical Method: parallel corpus of Yandex translation
Table 29.	Analytical Method: parallel corpus of Yandex translation
Table 30.	Analytical Method: parallel corpus of Yandex translation
Table 31.	Analytical Method: parallel corpus of Yandex translation
Table 32.	Analytical Method: parallel corpus of Yandex translation
Table 33.	Parallel corpus of “Rare coral reef discovered near Tahiti is ‘like a work of art’, says diver”
Table 34.	Holistic Approach for DeepL translation (Informative text)
Table 35.	Analytical Method: parallel corpus of DeepL translation
Table 36.	Analytical Method: parallel corpus of DeepL translation
Table 37.	Analytical Method: parallel corpus of DeepL translation
Table 38.	Analytical Method: parallel corpus of DeepL translation
Table 39.	Holistic Approach for Google translation (Informative text)
Table 40.	Analytical Method: parallel corpus of Google translation
Table 41.	Analytical Method: parallel corpus of Google translation
Table 42.	Analytical Method: parallel corpus of Google translation
Table 43.	Analytical Method: parallel corpus of Google translation
Table 44.	Holistic Approach for Yandex translation (Informative text)
Table 45.	Analytical Method: parallel corpus of Yandex translation
Table 46.	Analytical Method: parallel corpus of Yandex translation
Table 47.	Analytical Method: parallel corpus of Yandex translation
Table 48.	Analytical Method: parallel corpus of Yandex translation
Table 49.	ATA errors and their frequency (Informative texts)
Table 50.	Parallel corpus of “Showtec Edison Bar E6 V1”
Table 51.	Holistic Approach for DeepL translation (Technical text)
Table 52.	Analytical Method: parallel corpus of DeepL translation
Table 53.	Analytical Method: parallel corpus of DeepL translation
Table 54.	Analytical Method: parallel corpus of DeepL translation
Table 55.	Analytical Method: parallel corpus of DeepL translation

Table 56.	Analytical Method: parallel corpus of DeepL translation
Table 57.	Holistic Approach for Google translation (Technical text)
Table 58.	Analytical Method: parallel corpus of Google translation
Table 59.	Analytical Method: parallel corpus of Google translation
Table 60.	Analytical Method: parallel corpus of Google translation
Table 61.	Analytical Method: parallel corpus of Google translation
Table 62.	Analytical Method: parallel corpus of Google translation
Table 63.	Holistic Approach for Yandex translation (Technical text)
Table 64.	Analytical Method: parallel corpus of Yandex translation
Table 65.	Analytical Method: parallel corpus of Yandex translation
Table 66.	Analytical Method: parallel corpus of Yandex translation
Table 67.	Analytical Method: parallel corpus of Yandex translation
Table 68.	Analytical Method: parallel corpus of Yandex translation
Table 69.	Parallel corpus of “Vortex Mixer User Manual S0200”
Table 70.	Holistic Approach for DeepL translation (Technical text)
Table 71.	Analytical Method: parallel corpus of DeepL translation
Table 72.	Analytical Method: parallel corpus of DeepL translation
Table 73.	Analytical Method: parallel corpus of DeepL translation
Table 74.	Analytical Method: parallel corpus of DeepL translation
Table 75.	Analytical Method: parallel corpus of DeepL translation
Table 76.	Analytical Method: parallel corpus of DeepL translation
Table 77.	Holistic Approach for Google translation (Technical text)
Table 78.	Analytical Method: parallel corpus of Google translation
Table 79.	Analytical Method: parallel corpus of Google translation
Table 80.	Analytical Method: parallel corpus of Google translation
Table 81.	Analytical Method: parallel corpus of Google translation
Table 82.	Analytical Method: parallel corpus of Google translation
Table 83.	Analytical Method: parallel corpus of Google translation
Table 84.	Holistic Approach for Yandex translation (Technical text)
Table 85.	Analytical Method: parallel corpus of Yandex translation
Table 86.	Analytical Method: parallel corpus of Yandex translation
Table 87.	Analytical Method: parallel corpus of Yandex translation
Table 88.	Analytical Method: parallel corpus of Yandex translation
Table 89.	Analytical Method: parallel corpus of Yandex translation

Table 90.	Analytical Method: parallel corpus of Yandex translation
Table 91.	ATA errors and their frequency (Technical texts)
Table 92.	Parallel corpus of “Advancing Early Childhood Development: from Science to Scale”
Table 93.	Holistic Approach for DeepL translation (Scientific text)
Table 94.	Analytical Method: parallel corpus of DeepL translation
Table 95.	Analytical Method: parallel corpus of DeepL translation
Table 96.	Analytical Method: parallel corpus of DeepL translation
Table 97.	Analytical Method: parallel corpus of DeepL translation
Table 98.	Analytical Method: parallel corpus of DeepL translation
Table 99.	Holistic Approach for Google translation (Scientific text)
Table 100.	Analytical Method: parallel corpus of Google translation
Table 101.	Analytical Method: parallel corpus of Google translation
Table 102.	Analytical Method: parallel corpus of Google translation
Table 103.	Holistic Approach for Yandex translation (Scientific text)
Table 104.	Analytical Method: parallel corpus of Yandex translation
Table 105.	Analytical Method: parallel corpus of Yandex translation
Table 106.	Analytical Method: parallel corpus of Yandex translation
Table 107.	Parallel corpus of “Effect of mammographic screening from age 40 years on breast cancer mortality in the UK Age trial at 17 years' follow-up: a randomised controlled trial.”
Table 108.	Holistic Approach for DeepL translation (Scientific text)
Table 109.	Analytical Method: parallel corpus of DeepL translation
Table 110.	Analytical Method: parallel corpus of DeepL translation
Table 111.	Analytical Method: parallel corpus of DeepL translation
Table 112.	Holistic Approach for Google translation (Scientific text)
Table 113.	Analytical Method: parallel corpus of Google translation
Table 114.	Analytical Method: parallel corpus of Google translation
Table 115.	Analytical Method: parallel corpus of Google translation
Table 116.	Holistic Approach for Yandex translation (Scientific text)
Table 117.	Analytical Method: parallel corpus of Yandex translation
Table 118.	Analytical Method: parallel corpus of Yandex translation
Table 119.	Analytical Method: parallel corpus of Yandex translation
Table 120.	ATA errors and their frequency (Scientific text)

Table 121.	Parallel corpus of “Mr. Mercedes”
Table 122.	Holistic Approach for DeepL translation (Literary text)
Table 123.	Analytical Method: parallel corpus of DeepL translation
Table 124.	Analytical Method: parallel corpus of DeepL translation
Table 125.	Analytical Method: parallel corpus of DeepL translation
Table 126.	Analytical Method: parallel corpus of DeepL translation
Table 127.	Analytical Method: parallel corpus of DeepL translation
Table 128.	Analytical Method: parallel corpus of DeepL translation
Table 130.	Analytical Method: parallel corpus of DeepL translation
Table 131.	Analytical Method: parallel corpus of DeepL translation
Table 132.	Analytical Method: parallel corpus of DeepL translation
Table 133.	Holistic Approach for Google translation (Literary text)
Table 134.	Analytical Method: parallel corpus of Google translation
Table 135.	Analytical Method: parallel corpus of Google translation
Table 136.	Analytical Method: parallel corpus of Google translation
Table 137.	Analytical Method: parallel corpus of Google translation
Table 138.	Analytical Method: parallel corpus of Google translation
Table 139.	Analytical Method: parallel corpus of Google translation
Table 140.	Analytical Method: parallel corpus of Google translation
Table 141.	Analytical Method: parallel corpus of Google translation
Table 142.	Analytical Method: parallel corpus of Google translation
Table 143.	Analytical Method: parallel corpus of Google translation
Table 144.	Holistic Approach for Yandex translation (Literary text)
Table 145.	Analytical Method: parallel corpus of Yandex translation
Table 146.	Analytical Method: parallel corpus of Yandex translation
Table 147.	Analytical Method: parallel corpus of Yandex translation
Table 148.	Analytical Method: parallel corpus of Yandex translation
Table 149.	Analytical Method: parallel corpus of Yandex translation
Table 150.	Analytical Method: parallel corpus of Yandex translation
Table 151.	Analytical Method: parallel corpus of Yandex translation
Table 152.	Analytical Method: parallel corpus of Yandex translation
Table 153.	Analytical Method: parallel corpus of Yandex translation
Table 154.	Analytical Method: parallel corpus of Yandex translation
Table 155.	Parallel corpus of “I Wish You All the Best”

Table 156.	Holistic Approach for DeepL translation (Literary text)
Table 157.	Analytical Method: parallel corpus of DeepL translation
Table 158.	Analytical Method: parallel corpus of DeepL translation
Table 159.	Analytical Method: parallel corpus of DeepL translation
Table 160.	Holistic Approach for Google translation (Literary text)
Table 161.	Analytical Method: parallel corpus of Google translation
Table 162.	Analytical Method: parallel corpus of Google translation
Table 163.	Analytical Method: parallel corpus of Google translation
Table 164.	Holistic Approach for Yandex translation (Literary text)
Table 165.	Analytical Method: parallel corpus of Yandex translation
Table 166.	Analytical Method: parallel corpus of Yandex translation
Table 167.	Analytical Method: parallel corpus of Yandex translation
Table 168.	ATA errors and their frequency (Literary text)

## **Abstract**

The evolution of machine translators in recent years has made them increasingly popular among the public. In view of this, it is important to determine whether their use is reliable or not. The present study aims to determine this based on a two-method analysis (holistic and analytical) followed by descriptive statistical method to quantify the total errors made by three different English-Spanish machine translators in different types of texts (informative, technical, scientific and literary), and then comparing them with the official translation. After the analysis, the parallel texts were exposed to translation and interpretation students in a survey that allows them to determine whether there are errors in the different translations. The results indicate that as the specialization of the texts increases, the number of errors also increases. It is concluded that the machine translators studied are not entirely reliable.

**Keywords:** Google Translate, Yandex, DeepL, machine translation, specialized translation, translation error

## **Resumen**

La evolución de los traductores automáticos en los últimos años provoca que cada vez sean más populares, por ello es importante determinar si su uso es fiable o no. El presente estudio tiene como objetivo determinar esto mediante un análisis que se dividió en dos fases, siendo la primera, un método holístico y la segunda un método analítico. De esta misma manera se utilizó un método estadístico descriptivo para cuantificar el total de errores cometidos por tres traductores automáticos inglés-español en diferentes tipos de textos (divulgativos, técnicos, científicos y literarios), para luego comparar las traducciones automáticas con la traducción oficial. Tras el análisis, los textos paralelos se presentaron a estudiantes de traducción e interpretación en una encuesta que les permite establecer si existen errores en las distintas traducciones. Los resultados indicaron que, a medida que aumenta la especialización de los textos, también aumenta el número de errores. Se concluyó que los traductores automáticos estudiados no son del todo fiables.

**Palabras clave:** Traductor Google, Yandex, DeepL, traducción automática, traducción especializada, errores de traducción

# Chapter 1 Introductory Framework

## 1.1 Introduction

Machine translation (MT) is an automatic translation from one language to another without human intervention. There are three types of machine translation methods. Rule-based machine translation (RBMT), Statistical machine translation (SMT), and Neural machine translation (NMT). One of the first machine translation systems was RBMT. This translation system is based on linguistic rules, in other words, these translations should take into account the morphological, syntactic, and semantic scope. After receiving the message of the source language, the machine translation uses dictionaries to have an equivalent message in the target message (Dorothy, Keiko & Vladimir, 2019). The disadvantage is that grammar rules and grammar rule exceptions to each language pair have to be programmed. This causes RBMT to require more effort and time when the system is programmed. Afterward, SMT emerged as a new method, because while RBMT is a word-based system the SMT is a phrase-based system (Costa-Jussa, Farrús, Mariño Acebal & Fonollosa, 2012). In addition to that, the SMT uses existing translations made by humans (parallel corpora). In contrast with RBMT, the SMT does not need pre-defined translation rules, because it extracts all the information from the parallel data (Logacheva, 2017). Finally, the newest method is NMT. This system differs from the others because it learns from each completed translation and improves the following ones. In addition, it recognizes the patterns in the source language to determine the context and perform a translation. The peculiarity of NMT is that it solves some problems of MT. Because it uses neural networks to create an end-to-end system (Peris, Domingo, & Casacuberta, 2017). This indicates that the source language is analyzed by a single neural network and generates a translation. The current research focused on two of these systems, Statistical machine translation (Yandex translate) and Neural machine translation (Google translator and DeepL translator).

With the popularization of automatic translators, the question about their efficiency and whether they can overcome human reasoning has arisen. Leaving the unknown about the future role that translators will have. For a long time, there have been automatic translation tools, but they have never been taken seriously due to the low quality of their translations. Therefore,

they were only used for the translation of simple texts. Over the years, these automatic translators have evolved by leaps and bounds thanks to all the people that make use of them. They have not only improved enormously, but also learned. For these reasons, it is no longer unthinkable that a machine translator can be very useful for a translator. Since then, numerous machine translators have emerged.

Nowadays, according to María Noguero (2018) several language students use automatic translators as a methodological resource, and it has many benefits as a tool, due to its speed and its controlled use by the human, because it is well known the mistakes that it makes. However, how many errors and problems can be detected taking into account different types of text and amount of words. To start talking about the most frequent errors in automatic translation, the differences between both, human translation (HT) and machine translation (MT) have been taken into consideration. The dispute over the nature of translation studies has always been present, as Lía de Luxán Hernández (2019) said, the debate begins when it comes to classifying the study of translation, is it a science? A discipline? An art? Nevertheless, they have reached a mutual agreement, it is the translator who has the freedom to create a text under rules that are present in the field of translation knowledge. In broad terms, the HT is a human-made process where the human decides how the text will be translated. Due to this, the same text can be translated in several ways since each translator has his/her own style. In other words, two human translations of the same text will never be the same, whether due to cultural reasons or for the text's own approach. The MT as Ruchika A. Sinhal, and Kapil O. Gupta (2014) described, is an area of computational linguistics, which aims to use software to translate texts between languages with no room for further results. As reported by Ane Lucía Estívariz Álvaro (2019), who compared machine translations in tourism texts, thus finding that culturemes are a major problem for machine translators. Finding as the most common errors, faux sens, inappropriate renderings (such as grammar and lexical items), and inappropriate linguistic variation.

Considering all this, the study of automatic translators from English to Spanish is important to understand the errors and problems that they make and how they work, because these programs can be a great help to the translator and to broaden the knowledge of Translation.

### **1.1.1 Motivation**

Primarily, the motivation for this research comes from the fact that there are few investigations analyzing this topic, and it will be a contribution to the literature and future works. Secondly, it is to clarify the doubt that arises about the effectiveness of machine translation. Furthermore, it could be answering the following question: Can machine translators replace human translators? Notwithstanding, this research can help to propose that in the near future, MT might be considered an ally and not an enemy for human translators.

### **1.1.2 Aims**

The main aim of this research is to determine the quality of the translations made by automatic translators. It was analyzed at what level these machines make translation errors. Different tests were performed with different types of texts and complexities. Moreover, the machine translators that were used are Google Translate, DeepL translator and Yandex translate. The first and the second work with the Neural system, and the third one works with the Statistical system.

### **1.1.3 Research questions**

- 1) Does the perception of errors become more evident as the complexity of the texts progresses?
- 2) Does the type of technology/mechanism/algorithm behind the automatic translator affect the quality outcome of the translation?
- 3) Do the semantic equivalences provided by the 3 different MTS tools have the same impact as in the source text?
- 4) Does Literalness come as the most common error among the three translators?

## **1.2 Statement of the Problem**

From the time of the popularization of automatic translators, their quality has been tested to find out if they are a good tool for the translator. Moreover, conforming to Mariana González

Boluda (2010) thanks to globalization, numerous users need translations to be able to understand information and access it quickly, which is the reason the automatic translation programs on the Internet are so popular. Therefore, the study of different automatic translation programs is relevant in the Translation literature, since knowing the errors and problems that occur in MT creates a conscientious use of these programs, and can be of great help to the modern translator. In this way, MT should not be seen as an enemy, but as an ally that will function as a Computer-Assisted Translation (CAT). Another important point is the little information that users have about Translation and MT, as well as unfamiliarity of source and target language. As a consequence, users do not perceive the error in the translation. Moreover, MT, as stated by Viver (2018) is a quick solution to eliminate the barrier of languages. Nevertheless, it is also a good tool for professional translators. In this line, Perez (2017) suggests that machine translation should stop being seen as an isolated product and start being seen as a tool that interacts with the user. In the same line, a study by Serrano Vega (2015) titled *Postediting: current situation of machine translation and a case study* will show how machine translation tools are being used not only by people in general, but also by professional translation agencies.

This work had the objective of analyzing the current machine translation, how it is used, its virtues and defects, as well as to see if it can be a really useful tool in the hands of a human translator, in order to see if it is really a viable tool. For this purpose, a series of questions were asked to 13 translation agencies in Spain, where 6 use some type of automatic translation (own, private or external engine) and the others do not, either by their own decision (in most cases) or simply because it has not even been a topic of conversation. How machine translation is used in translation agencies? The main use given to automatic translation, or CAT, as it will see below, it is to provide flexibility in payment and time, where first a careful review of the text will be carried out, to check if it is possible to perform an automatic translation, this is of vital importance since it is made very clear that not any text is suitable to be translated by an automatic translator, if the conditions are favorable, the translation will be performed. When the translation is ready, it will be passed to a post-editor, who will review and correct any errors made by the machine. These tests were performed in 3 phases using a financial text. Phase 1 was done by a human translator, the second by machine translation, and the third by machine translation as a CAT tool (computer-assisted translation).

The results were favorable for both human translation (phase 1) and computer-assisted translation (phase 3), where the times were practically identical (52 minutes for human

translation and 51 minutes for machine translation as a CAT tool), while machine translation with post-editing took 1 hour and 15 minutes.

The results show that machine translation proved to be more of a hindrance than a help for the translator, since it is necessary to recognize and fix the multiple errors in the translation, this process was simpler for the human translator, since by starting clean, the translator does not have to look for errors and can concentrate on making a quality translation, machine translation as a CAT tool was a pleasant surprise, where CAT tools (glossary, translation memory, etc.) were incredibly useful for the translator, as the translator can avoid translating simple and repetitive fragments, and can focus the attention on solving translation errors thanks to CAT tools.

This work is useful for this research since there is always doubt about the effectiveness of machine translation today, and given its incredible advances, it is not surprising, however, this tool is always undermined by studies that show that, although it has improved, it still has a huge amount of errors, where a complex text can truncate the translation, leaving it without context and converted into a list of words stripped of their original meaning, as mentioned by Perez (2017). Despite this, this work provides important background for a future discussion, where it casts doubt on whether a machine translator could ever replace a professional translator, in addition to sowing doubt whether machine translation is really the way forward, or whether we should focus our efforts on machine translation as a CAT tool.

When talking about human translation vs. machine translation, one immediately thinks that machine translation cannot compete against its peer, since it lacks purely, and so far, human characteristics, such as emotions, or perception, or even if we delve deeper into this practice, and the ability to create a text taking into account the rules of Translation studies, such as detect problems and solve them according to the context. Lead to the fact that, the processes that through which the HT goes through have also advanced in this field over the years, such as the theory of equivalence, which consisted, in line with Phym (1991), in using the equivalent in the target language of the word to be translated, so that the source text and target text have the same value, a theory that over time came to be considered simplistic. Something similar happened with automatic translators, where at the beginning a statistical machine translation was used, a model that in simple words analyzed the number of times a word was used to see if it was used in the right way, this model overlooked things like context, and word matching, resulting in low-quality translations.

Over the years, and after seeing that this process had potential, neural machine translation was born, which in a nutshell, learns from the user. Both human and machine translation have

improved over the years, which leaves us to ask ourselves, how does machine translation compare to human translation today? Restrepo (2019) carried out a study where the perception of automatic translation by professional translators can be appreciated. In this work 8 translators were asked different questions, where some of the most interesting and relevant conclusions for this work were about the use of MT tools, where 100% of the respondents gave a positive answer, and 43% of the respondents indicated to use automatic translation (Google Translator), the reason for this was because they used it to detect words they did not know (100%), to look for an alternative translation different from the one used (57.1%) or to verify the correct translation of a segment (42.9%).

With this in mind they were asked about the advantages and disadvantages of machine translation, the main advantage of machine translation according to the translators was the possibility of finding a synonym (5), followed by finding the correct translation of a word (2) and then shortening the translation time (2).

As for the disadvantages, most of the responses indicated that machine translation deteriorates the quality of the translation, and that naturalness and fidelity are lost in the target text, among many other things. Studies like this one and many more, only prove an already established belief, which is that machine translation alone cannot generate a translation similar to that of a human translator, however, it can be, and as it evolves, a great tool for the translator, which could achieve what in the beginning was the main task of the machine translator, that of reducing costs and time.

### **1.2.1 The accuracy of machine translation**

The accuracy of machine translators, regardless of the automatic translator used, generates uncertainty among professionals. These errors, defined by Piñol (1999), are generated due to the lack of inferential mechanisms from the automatic translator to express the explicit or implicit part of a text. This problem can not only generate structural errors in the translation, but also errors of meaning, or convey a contrary message. In the same line, if it consider that in simple texts its effectiveness is doubtful, this error gap increases in more specialized texts and therefore of greater linguistic complexity.

In order to delve deeper into these errors, Paez (2019) conducted an analysis of the performance of Google Translator and Baidu Translate, in which she tested the reliability of the translation

of the Chinese-Spanish language combination. In the mentioned work, six non-specialized texts of different topics were used as corpus. Analyses were performed on specific fragments of those texts. Google Translate made a total of 106 errors, equivalent to 43.8% of the corpus in question, and the Baidu automatic translator made a considerable number of 136 errors, equivalent to 56.2%. The most frequent errors found in both translators were nonsense, mistranslation, mistranslation, typography, grammar, inconsistency and linguistic variation, which means that post-editing work needs to be done.

In another instance, Huamán (2019) analyzed the machine translation errors that appeared on web pages and tourism blogs. The study was descriptive, with a qualitative approach and case study design. The corpus was 5 texts extracted from 5 web pages and 5 tourism blogs; and the instrument used was an analysis sheet. As a result, a total of 107 machine translation errors emerged, of which a higher frequency of inadequacies affecting the expression in the target language was identified (53%), with an intermediate frequency of inadequacies affecting the comprehension of the original text (39%), and with a lower frequency of pragmatic inadequacies (8%). Therefore, it was concluded that most errors were due to both lexical and grammatical inadequacies, in addition to errors of meaning and poorly resolved extralinguistic references. The translator used in this case was Google Translate. It also should be noted that the texts analyzed correspond to fragments, not to a complete text. These fragments have different lengths, on average composed of 50 to 200.

Viver (2018) aims to verify if four different machine translation engines offer an acceptable product when translating a descriptive-promotional beauty text, and secondly demonstrate how automatic translation followed by post-edition can be useful for a professional translator's productivity. This investigation had a qualitative approach and case study design. Its corpus was composed of an article written in English of Vogue magazine in collaboration with Birchbox. This article was translated by different automatic translators (Google Translate, Bing, Babylon, and Systran). The results of the translation were analyzed under an error classification adapted by Ortiz's (2016) "Multidimensional Quality Metrics Error Typology (MQM)". As a conclusion of this work, it was detected that each automatic translation system had different errors. In the case of Babylon 26% of the errors are identified as mistranslation and 23% of grammar errors. Typology and terminology 10%, and omission 10%. Bing, on the other side, the most representative percentage of error corresponds to mistranslation (32%), and then in second place terminology errors (19%).

### **1.2.2 The obstacles of machine translation**

The main challenges that a translator confronts are related to Lexical-Semantic Problems, Grammatical Problems, Rhetorical Problems, Pragmatic Problems, and Cultural Issues. (Mathieu, 2003, as cited in Napu & Hasan, 2019). These problems not only affect the HT, but also the MT. The difference is that human translators can solve the problems before the final product is provided. On the other hand, the free version of each MT that was analyzed in this research has a limit of characters that can be entered for analysis and translation. In this way, MTs cannot make a complete analysis of the context that gives rise to the text, resulting in several semantic and syntactic errors. As Cieza Delgado and Yessika Yanina (2020) indicated in their analysis of machine translators in medical texts, this leads to a loss of coherence and cohesion.

In the same vein, a big obstacle appears when it comes to Translation Quality Assessment (TQA) because several important points must be taken into account. Such as intelligibility, fidelity, fluency, adequacy, and comprehension. According to Han, Jones, and Smeaton (2021) Intelligibility and fluency mean that the translation must be natural when it is read and easily understood as if it had been written in the original language. Han, Jones, and Smeaton add that fluency, adequacy, and comprehension exist when a sentence is fluent in context and well-formed. In addition to that, the translation must have the necessary information, in order to the client or the readers can fully understand the translation. TQA guarantees that the quality of the translation is optimal, and therefore quality is delivered to the client (Doherty, 2017). As indicated by the authors, Graham et al. (2014) evaluating the quality of an MT is difficult because the person in charge of evaluating must be highly competent in the target language but also have knowledge of the source language. In addition, the meaning of quality changes depending on the individual, group or context (Castilho et al. 2018).

### **1.2.3 Hypothesis**

In this research, three MT were studied, two of them are by NMT and the other by SMT. The comparison of these programs was carried out in order to analyze their quality based on the

errors they make. It should be said that the corpus to be analyzed was extracted from different text difficulties, starting with informative texts up to specialized texts. In this way, it is expected that NMT provide better results than SMT. These MTs were selected for their results and to obtain more significant samples where two different types of MTs were compared. Deng, Li, & Liu (2019) said that NMT provides higher quality translations when compared to SMT. Similarly, Zhou et al. (2020) said that although SMT has been used for a long time, in recent years, NMT has shown better results in translations. In summary, NMT systems use neural networks to learn to translate directly from the source text to the target text. Consequently, NMT systems delivers more accurate and natural translations than SMT systems.

The texts to be analyzed were divided into 4 categories: informative, technical, scientific and literary texts. These four complexities of texts were selected, choosing these four different types of text (informative, technical, scientific, and literary), for a study on automatic translation quality is a good selection because it allows for a comprehensive evaluation of the performance of the translation system. This is supported by research in the field of natural language processing, which has shown that different text types present unique challenges for machine translation (Koehn, 2010).

Informative text is typically written in a straightforward and simple style, making it a good test case for evaluating the basic functionality of the translation system (Nie et al., 2018). Technical and scientific text, on the other hand, often contain specialized vocabulary and complex sentence structures, which can pose a greater challenge for the translation system (Hovy et al., 2016). By including these types of text in the study, researchers can assess the system's ability to accurately translate technical and scientific terminology and understand the nuances of the text (Koehn, 2010).

Literary text, meanwhile, offers a unique challenge because it often contains figurative language, idioms, and other elements that can be difficult to translate (Nie et al., 2018). By including literary text in the study, researchers can evaluate the system's ability to understand and preserve the meaning and tone of the original text (Hovy et al., 2016).

In summary, by including a variety of text types in a study on automatic translation quality, researchers can gain a more comprehensive understanding of the system's capabilities and limitations, which is important for determining the overall quality of the translation system.

Therefore, it was estimated that all programs have errors in the translation of scientific and literary texts, since these present a greater number of translation problems. It is also expected that the most frequent errors made by machine translators would be the error of Literalness, Verb Form and Terminology. Furthermore, the number of errors is expected to increase along

with the difficulty of these categories. Regarding the holistic analysis, it is expected that the 3 automatic translators would not obtain “Distinguished”, as it is expected that they would make more errors than a human translation.

On the other hand, a survey was also conducted among translation students from Universidad de Atacama about the parallel texts translated by machine translators and human translators. However, it was not specified which translation belonged to which translator in order not to influence and affect the answers of the participants, since most machine translators popularly have a negative reputation. Likewise, parallel texts of all the categories defined for this study, informative, technical, scientific and literary texts, could be found within the survey. Therefore, it is believed that all students at each level would perform better with the scientific and literary texts, since they present a greater number of evident errors in the translation made by the automatic translators. It is also expected that the majority of students in the question regarding the use of machine translators as a translation tool would agree, because being a translation tool, it is assumed that the translation goes through a review by a human translator.

### **1.3 Main objective**

The main objective of this research is to analyze the translation quality of three automatic translators, evaluated according to the errors made in their translations from English into Spanish of different types of texts with different complexities (informative texts, technical texts, scientific texts and literary texts). In the same way, these programs were evaluated through a comparative analysis between the automatic translation, the human translation and the source text. Likewise, having different text complexities that the machine translators faced provides a framework of differences regarding the errors that are present in each complexity and changes in translation quality that can be appreciated. Another objective of this research is to know the level of understanding of translation errors and the perception of machine translators by students of the translation degree of the Universidad de Atacama.

### **1.4 Specific objectives**

Through a holistic analysis method, it is intended to obtain a measurement of the quality of MT by means of the CIOL Chartered Institute of Linguists table, which consists of a series of criteria that, depending on the translation and the errors that it may or may not contain and whether the message of the text was transferred correctly or not, the translation may obtain a

fail, pass, merit or distinction in each of the criteria. The Analytical method is intended to analyze, account for and explain the errors found or the differences that are not errors, but are significant, in order to complement the first method used and to have a complete analysis of the evaluation of the quality of the translations made by automatic translators. Both methods were applied for the analysis of each of the translations made by DeepL, Google and Yandex of the different levels of complexity that depend on the type of text (informative, technical, scientific and literary), in order to obtain a conclusion on the results that are expected to be different, since the difficulty in terms of translation problems that a text may present increases with the complexity of the type of text, if these problems are transferred without a solution to the target text, they may be an error, which means that the quality of the translation drops.

The requirement for choosing these programs was their popularity among the public, finding that Google Translate is the most used program, DeepL is moderately well known and Yandex is a translator that is not so well known. This was based on the opinions of the general users in blogs and social medias.

Through a survey of translation students, consisting of 5 parts. The first four parts contain the parallel texts corresponding to the levels of complexity, in each part there is the source segment in English and the translations in Spanish made by the translator DeepL, Google, Yandex and human. However, it is not specified which translation corresponds to which translator in order not to influence the answers. The questions are about the translation, if it contains errors, if it sounds natural in the Spanish language, if the meaning was transferred correctly, etc. Finally, the fifth part is questions about the perception of machine translators, with questions about the use of machine translators in different fields. The purpose of this survey is to know the student's perception of automatic translators, as well as to know if the translations of these automatic translators fulfill the function of delivering the message correctly.

## **Chapter 2 Theoretical Framework**

### **Theoretical Framework**

This research was conducted around five concepts: Human Translation vs Machine Translation, Translation Problems, Text Types, Localization and Translation Quality Assessment. It is necessary to establish a theoretical basis to understand these concepts, since they will be presented throughout this research. The theoretical approach is presented below in the terms described.

#### **2.1 Human translation vs Machine translation**

It is necessary to focus on the definitions that exist around human and machine translation in order to establish a line that will help to understand the differences between the two and to propose answers to the different translations that were obtained.

##### **2.1.1 Human translation**

Translation dates back to ancient times and has been a fundamental factor in historical events. It has been present since the Rosetta Stone, in the Greek and Roman civilizations, in religious translations, in the Toledo school of translators, etc. All these activities were done in order to spread knowledge in a multicultural world. Therefore, today, translation takes an even more important role due to globalization and the amount of information that is now available on the Internet. Moreover, translation studies are becoming more and more extensive, to avoid making historical mistakes as in the past, positioning itself now as a profession. In Addition, Anthony Pym in his book *Exploring Translation Theories* presents a possible definition of Translation from the point of view of authors Eugene Nida and Charles Russell Taber, who state that translating consists of reproducing in the target language the closest natural equivalent to the message of the source language (Nida and Taber 1969: 12) (Pym, 2012, p. 30). In the same way, Pym indicates that human translators constantly theorize, they are the ones who follow a series of steps to solve a problem, thus being the person who, based on the communicative

context, solves the problem (2012). He also states that formulating options that generate solutions is a complex act, since the text, the purpose, the client and the deadline must be taken into account, and all of these processes are carried out by humans. Moreover, nowadays, computers and applications created for the translator, play an important role in the work of the “modern translator”. With the help of these tools, the translation process has been accelerated and for this reason it must be taken into account that the use of CAT’s should also be considered as human translation, and be noted that it is drastically different from the use of MT with post-editing done by a human.

### **2.1.2 Translation competence**

Along with the experience of the HT, the Translator Competence (TC) must be taken into account. This macro-competence is made up of abilities, skills, knowledge and attitudes of translation as a professional activity. Silvia Roiss (2008) explains in her book "Desarrollo de la competencia traductora: teoría y práctica del aprendizaje constructivista" (Development of translation competence: theory and practice of constructivist learning) that there is no single definition of the term, because each author considers different factors, for example, there are those who take into consideration four components, grammatical, sociolinguistic, discursive and transfer, as in the case of the author Beeby (1996, as quoted in Silvia Roiss, 2008) while Hurtado (1996, as quoted in Silvia Roiss, 2008) divides translation competence into five subcompetences: communicative, thematic, mental, translational and professional competence. However, this research was using the definition from the holistic model of Translation Competence proposed by the PACTE (Process of the Acquisition of Translation Competence and Evaluation) group (2016), since it has been subjected to an empirical-experimental type of research. The PACTE group provides a definition for TC, showing it as an underlying system of knowledge, skills and aptitudes needed to translate, see also another definition for TC by PACTE (2016):

*"Translation competence is a set of knowledge, skills, attitudes, and values that a translator possesses, which allow him/her to translate texts accurately, fluently, and appropriately from one language (the source language) into another (the target language). It involves a deep understanding of the source language, the target language, and the cultures of the two languages, as well as the ability to analyze and*

*understand the content, form, and style of the source text, and to re-create it accurately and appropriately in the target language. Translation competence also involves the ability to use translation tools and resources effectively, and to adapt to different translation contexts and situations."* (PACTE, 2016, p. 10)

Moreover, they distinguished six subcompetencies that make up TC, whose definition was found in the social science journal article entitled “Las once competencias del traductor: El perfil ideal en servicios de traducción” (The eleven competencies of the translator. The ideal profile in translation services) by the author Daniel Alejandro Márquez (2011): (1) Communicative Competence in both Languages, which corresponds to pragmatic, sociolinguistic, textual and grammatical/lexical knowledge; (2) Extralinguistic Competence, which corresponds to bicultural, encyclopedic and thematic knowledge. (3) Transfer Competence, which corresponds to the correct transfer of the meaning of the message and the encoding and decoding of texts. (4) Professional Competence, is the knowledge and skills corresponding to professional translation practice and to new technologies and information sources. (5) Strategic Competence, corresponds to the translator's knowledge, to solve problems, to plan an efficient translation process using an appropriate method and to establish interaction relationships between competencies. (6) Psychophysiological Competence, which corresponds to the ability to apply different psychomotor, cognitive and attitudinal resources. Finally, Daniel Alejandro Márquez (2011) concludes by saying that translators are different from bilingual people because of the sub-competences that the translator possesses and the processes that he/she carries out through these sub-competences. All these skills are obtained through translation studies, which is a dynamic and cumulative learning process that is not reduced to the simple fact of knowing a second language.

### **2.1.3 CAT Tools**

Computer-assisted translation (CAT) tools emerged as a result of the advances in information technology and globalization that reached the translation process. In other words, CAT arise from information and communication technologies (ICT), which are defined as the “set of processes and products derived from new software and hardware tools, information carriers and communication channels related to the digitized storage, processing and transmission of information.” (González Soto et al., 1996, as quoted in Tester, 2014, p.13), Míriam Tester also states that the term ICT "refers to the whole set of technologies and services provided by the

fields of information technology and telecommunications.” (2014, p.13). Therefore, the ICT that are designed for the translator's work are Machine Translation (MT) and Computer Assisted Translation (CAT). However, a dividing line must be drawn between both ICT tools since they play different roles in the translation process, while in CAT the translation process is carried out by a human with the help of a computer application, in the MT the translation is carried out directly by a computer application. (Tester, 2014). User-assisted MT can also be found, which are characterized by translations made by a computer application that have a post-editing and revision made by a human person, who fixes possible errors contained therein. (Diéguez and Lazo, 2004).

Regarding CAT, it is a tool widely used by translators all over the world, it has proven to be incredibly useful in assisting the translator, one of the most important features of these tools is the translation memory and the terminology management system, the translation memory collects information as it is translated, and the terminology manager is used to store specific terms that the translator chooses, some of the advantages that these two features can achieve is a considerable time saving in repetitive texts thanks to the translation memory, or not wasting time looking for the correct translation for a term already translated.

The benefits of computer-assisted translation tools, such as MemoQ or Trados, are greatly increased when used over a prolonged period of time, as translation memories and terminology management systems can be assigned to certain areas, thus achieving a translation that can achieve the quality of a translation done with time and care by a human, but with the efficiency of a machine that does not perform unnecessary processes.

#### **2.1.4 Machine Translation**

The constant demand of the world to access all kinds of information has given way to translation, not only by ordinary people, but by companies and people of the highest importance, for this and much more it was not surprising that human translators often could not keep up with a growing demand for translations, this because there were increasingly needed translations of higher quality and much faster.

According to Parra (2012) the first machine translation proposals were seen in 1933, where the French-Armenian George Artsrouni and the Russian Petr Smirnov-Troyanskii patented some proposals to materialize the machine translation, these consisted of 3 phases where a person who knew the source language made an analysis of it, and then deliver the results to a machine

that would then translate the text into the desired language, so that an editor who knew the target language could then adapt the sequences created by the machine to their language, to achieve the greatest possible naturalness, and thus, unintentionally, achieved a proposal that is completely analogous to the post-editing processes today (Parra, 2011).

Over the years these processes have only advanced, so that today the most widely used types of MT are rule-based and corpus-based (statistical and neural), each of them arising due to the needs of the moment to achieve quality translations.

Parra (2018) discussed these models in her article, Rule-based machine translation (RBMT) is perhaps one of the least used models today, given its high maintenance cost. Rule-based machine translation requires a huge amount of bilingual dictionaries from one language to another, in addition to countless rules to solve any kind of problem that may arise in translation, on paper this sounds pretty good, and it was during its beginnings, however, this system has great difficulties when translating segments that do not comply with the software rules, besides not knowing words or expressions that are not found in the dictionaries, making it a system that requires constant updating in order to work properly.

Corpus-based machine translation offers a great advantage when considering costs, since they learn from user data. Statistical machine translation (SMT) uses a monolingual corpus of the target language and a parallel corpus with translations made between the source and target language. Parra (2018) mentions the three main components of this type of machine translation, the language model, the translation model and the decoder. The language model is in charge of the fluency of the translation, it is in charge of the probability that a sentence is translated correctly, the translation model is in charge of the equivalence of the source and target language, and finally, the decoder, which explores different translations and assigns the most probable translation for each case, these three components work together to create multiple translations and choose the most probable one by means of statistics.

Neural Machine Translation (NMT) also uses parallel corpora, but this system is much more complex than its predecessors, as it tries to mimic the ability of humans to use neurons, which are able to receive information and make connections on the millions of not only words, but sentences that are used daily, so this model seeks to learn to associate words and make connections between them, basically learning each time it receives new information.

At first Google Translate used rule-based automatic translation, however thanks to the constant advances in these technologies, Google left behind this model to join the relatively new DeepL, in the use of neural automatic translation.

## **2.2 Translation Errors**

A translation error occurs either due to lack of knowledge of the source language or the target language. Likewise, due to the lack of mastery of the subject to be translated. According to Newmark (1993) a translation error could be defined as the case where a translated segment differs indisputably from the source text and consequently results in a poor translation. Newmark adds that it could also happen due to the incompetence or ignorance of the translator. On the other hand, conforming to Pym (1992) translation error could be caused due to lack of comprehension, inappropriateness to readership, or misuse of time. Furthermore, translation errors could be found on various levels such as language, pragmatics, culture, etc. In the same vein, pursuant to Nord (2014) translation errors could be classified into four categories such as pragmatic, cultural, linguistic, and text-specific. With this in mind, it can be concluded that translation errors directly affect the quality of translation. Errors can also be an important point in determining whether a translation is good or bad.

### **2.2.1 Translation quality assessment**

Assessing a translation is a very complex task, where several authors have tried to establish rules that determine what a good translation is. Martin (2010) defines four aspects that explain why it is complex to assess a translation:

- Translation activity has an unpredictable nature, and it is an intellectual exercise that results in a product for which there is no universal measurement.
- There is no perfect translation, however the same source text could have several possible acceptable and appropriate translations.
- There are multiples translation academies and each one with its own paradigm. As a result, it appears different proposals about translation.
- There is no unanimity on essential issues when assessing.

Additionally, in agreement with Koby et al. (2014) a high-quality translation is defined as follows:

*A high-quality translation is one in which the message embodied in the source text is transferred completely into the target text, including denotation, connotation, nuance, and style, and the target text is written in the target language using correct grammar and word order, to*

*produce a culturally appropriate text that, in most cases, reads as if originally written by a native speaker of the target language for readers in the target culture.* (Koby et al. 2014: 416-417).

### **2.2.2 A good translation**

According to Newmark (1991, as cited in Waddington, 2000) as far as possible a good translation has to be accurate and economical. It must be accurate in regard to source text and the author. Also, the translator must convey the denotative and connotative content of the source text. Finally, Newmark says that to maintain fidelity with source text, literal translation is necessary and any attempt to avoid it is rejected. Newmark emphasizes that the assessment should be based on whether the target text is faithful to the source text or not.

Nonetheless, Darbelnet (1977, as cited in Waddington, 2000) defines that a good translation must be faithful to the meaning of the source text and the translator must maintain the tone and style of the source text. The translator must also keep in mind the message that the author wants to deliver, and must take into account the final client or recipient. Up to this point, Darbelnet's thought coincides with Newmark's thought. However, their thoughts disagree on one point. Unlike Newmark, Darbelnet says that the target text should not look like a translation, in other words it should look as if it had been written in the target language.

In second place, in agreement with Nida (1982, as cited in Waddington, 2000) the recipient is the most important thing in the translation process. For Nida, the quality of translation is measured according to the degree of acceptance of the recipient. That is why Nida designed four tests to determine the quality of translation:

The first test is to provide the translation to the recipient, but with some words removed. If the recipient guesses the missing words easily, and it matches with the one in the translation, the quality is acceptable.

The second test consists of provide the translation to the recipient, but with several alternatives in the segment with problems, and asking for the recipient's opinion.

The third test consists of reading the translation to the recipient, then the recipient must explain the translation to another person. The purpose of this test is the clarity in which the message is conveyed.

The fourth test consists of a person reading the translation with the translator present. If the reader finds a difficult part, the translator takes note to modify the translation and have more fluency.

Unfortunately, these tests were not exempt from retractors and the biggest criticism that Nida receives is because his quality evaluation system is only based on the target text and not on the source text. With this background, it is possible to demonstrate the difficulty of translation quality assessment. Until now, it seems difficult to reach an agreement on what is a good translation. And even evaluate a translation only on the comparison between texts or on standard rules.

### **2.2.3 ATA and CIOL**

Throughout section 2.2 it has been shown how difficult it is to establish the quality of a translation. However, there are institutions that certify translations and through a series of tests can establish whether a translation is acceptable or not. There are also institutions that evaluated if a translator has the necessary skills to be a translator, and for that, translation quality assessment must be evaluated. This research used the translation errors categorized by American Translators Association (ATA) and the Assessment marking criteria for Certificate in Translation made by Chartered Institute of Linguists (CIOL). As mentioned by American Translators Associations (ATA, 2021) there are 26 errors which are divided into three categories.

- The first category is made up of error in Target Language Mechanics. This category is made up of errors that violate one or more rules about the correct form to write in the target language. Category 1 errors are: Grammar, Syntax, Word form / Part of Speech, Spelling, Capitalization, Diacritical Marks / Accents, Punctuation, and OTH-ME.
- The second category is made up of errors in Meaning Transfer. This category is made up of errors that affect or distort the reader's understanding of facts or ideas in the source text. Category 2 errors are: Addition, Omission, Terminology, Faux Ami, Verb Form, Ambiguity, Cohesion, Faithfulness, Literalness, Misunderstanding, Indecision, Unfinished, and OTH-MT.
- The third category is made up of errors in Writing Ability. This category is made up of errors in the target language, however these errors do not violate the rules of spelling, grammar or punctuation. These errors detract the quality of the translation with non-idiomatic or unclear word / phrases. Category 3 errors are: Usage, Text Type, Register, Style, and Illegibility.

Additionally, ATA has its own framework for standardized error marking (Figure 1). In accordance with Phelan (2017) The ATA assessment system is very complicated, at first seems that it is only based on quantifying errors. However, the ATA framework is divided into three categories.

- The first category is composed of unfinished, illegibility, and indecision.
- The second category is composed of transfer errors and consists of 13 items, which are: addition, ambiguity, cohesion, faithfulness, faux ami, literalness, misunderstanding, omission, terminology, text type, verb tense, and an open category entitled other.
- The third category consists of mechanical errors, which are: grammar, syntax, word form / part of speech, punctuation, spelling, diacritical marks / accents, capitalization, usage, and an open category entitled other.

Phelan said that category 1 and 3 seems to be the easiest to evaluate, on the contrary category 2 is more subjective. Phelan also said that the biggest difficulty with ATA system is that the assessor is the one who decides how serious the error is.

**ATA CERTIFICATION PROGRAM  
FRAMEWORK FOR STANDARDIZED ERROR MARKING  
Version 2017**

Exam No.: _____
Passage No.: _____

1	2	4	8	16	Code	Reason
<b>Errors that concern the form of the exam</b>						
					UNF	Unfinished (If a passage is substantially unfinished, do not grade the exam.)
					ILL	Illegibility
					IND	Indecision, gave more than one option
<b>Meaning transfer or strategic errors: Negative impact on clarity or usefulness of target text. Use one of the categories below whenever possible. If none are applicable, use OTH-MT</b>						
					A	Addition
					AMB	Ambiguity
					COH	Cohesion
					F	Faithfulness (translation strays too far from ST meaning)
					FA	Faux ami (false friend)
					L	Literalness
					MU	Misunderstanding of source text (if identifiable)
					O	Omission
					T	Terminology, word choice
					TT	Text type (failure to follow Translation Instructions) This category also covers register and style.
					VT	Verb Tense (grammar correct, but conveys wrong meaning)
					OTH-MT	Other (describe; use a separate page if needed)
<b>Mechanical errors: Negative impact on overall quality of target text. Points may vary by language. Maximum 4 points. Use one of the categories below whenever possible. If none are applicable, use OTH-ME</b>						
					G	Grammar (use one of next two sub-categories if applicable)
					SYN	— Syntax (phrase/clause/sentence structure)
					WF/PS	— Word form /Part of speech
					P	Punctuation
					SP/CH	Spelling/Character (usually 1 point, maximum 2; if more than 2 points, another category must apply)
					D	— Diacritical marks/Accents
					C	— Capitalization
					U	Usage
					OTH-ME	Other (describe; use a separate page if needed)
	x 2 =	x 4 =	x 8 =	x 16 =	<b>Column totals</b>	
A grader may stop marking errors when score reaches 46 error points (mark such exams 46+)		A grader may award a quality point for each of up to three instances of exceptional translation.		Quality points are subtracted from the error point total to yield a final score. A passage with a score of 18 or more points receives a grade of Fail.		
<b>Total error points (add column totals):</b>		<b>Quality points (maximum 3):</b>		<b>Final passage score (subtract quality points from error points):</b>		

**Figure 1: ATA Framework for standardized error marking**

Furthermore, Phelan said that at first, the ATA framework seemed to be an analytical method where the assessor’s opinion is rarely subjective and is usually objective. Nevertheless, according to results of Phelan’s study, the ATA framework turned out to be very subjective.

For its part, CIOL (2022) said that its main objective is to promote the value of language, as

well as language skills in the public interest. In keeping with Rosemary (2015) the quality of CIOL exams is monitored by Ofqual (The Office of Qualifications and Examinations Regulation). Rosemary adds that CIOL's impact on the quality of translation is good, but limited. Because the quality of translation is only established between the client and the translator.

#### **2.2.4 Localization**

Localization is the process of localizing a product in a foreign market (Schäler 2010), for this it is adapted to aspects of a culture, such as currency, date, type of writing, etc. The objective of localization is that the audience can obtain a product capable of delivering an experience equal to that of the original product. Localization was born from a market need in the face of the globalization of the world economy. Along with localization a terminology called GILT was born, these acronyms stand for: Globalization, internationalization, localization and translation (Riippa, 2016).

Localization Industry Standards Association (LISA) in 1998 defines the most important terms as follows:

*Localization involves taking a product and making it linguistically and culturally appropriate to the target locale (country/region and language) where it will be used and sold. (LISA, 1998, p. 3)*

*Globalization addresses the business issues associated with taking a product global. In the globalization of high- tech products this involves integrating localization throughout a company, after proper internationalization and product design, as well as marketing, sales, and support in the world market. This meaning is more specific than the general process of economic globalization. (LISA, 1998, p. 3)*

*Internationalization is the process of generalizing a product so that it can handle multiple languages and cultural conventions without the need for re-design. Internationalization takes place at the level of program design and document development. (LISA, 1998, p. 3)*

The importance of internationalization is mentioned, but what is this?

Safronova (2018) defines internationalization as the adaptation of a product for potential use anywhere in the world. As reported by Phym (2014) internationalization is the process that comes before localization, and which simplifies localization, since it prepares the source text, with which then the translator does not translate or localize the source text, but works with the internationalized text, in addition, by having an internationalized text, it can be localized to different languages and cultures since it was prepared for that.

While the translation of a text or product takes place relatively at the end of the work, the internationalization of a product can be done at the end of the work.

Phym (2014) mentions that a localization should be planned from the beginning and step by step. In line with Phym this process is given a different name, Globalization, as the process must be specially designed to localize a product or text to the global market.

Phym uses a simple analogy to better understand these terms: "within a company that has been globalized, products are internationalized, so they can then be localized quickly and simultaneously, and part of that localization process is translation." (Phym, 2014, p. 122)

### **2.2.5 Neutral Spanish**

When translating into Spanish, you must first choose which variant of Spanish will be used, European Spanish, American Spanish, or one that was born to be understood by all, neutral Spanish. This contains parts of the internationalization, since both seek that the product is able to enter different markets, only that one will do it in Spanish, and the other mostly in English. Neutral Spanish seeks that the translation can be understood by everyone everywhere, since Spanish is riddled with regionalisms or local terms that pose a difficult understanding for the rest of Hispanic Americans (Rivero, 2018). For this, it is first necessary to take into account the many differences that exist in Spanish, such as pronunciation, seseos/ceceos, morphosyntax, etc. (Carvajal, 2018).

Then a balance must be sought between the two and thus neutral Spanish is created, for this translators and localizers have different techniques, such as Modulation, Transposition, Amplification, Omission, Equivalence, Adaptation, Borrowing, etc. As can be seen, there are different techniques to carry out this process, which is constantly evolving. Rivero (2018) mentions that Spanish is a living language, which is constantly changing due to different factors, so it is always in search of new and better techniques for localization.

### **2.3 Text types**

It is important to determine under what definitions this work will be based on, therefore the following section will be focused on the delimitation of each type of text and the differences that one might have with others.

#### **2.3.1 Corpus**

As well-defined by Rojo (2016), a corpus is a set of natural text fragments (therefore not artificial or created expressly for incorporation into the corpus). These texts represent a linguistic variety partially or in its entirety. They are required to be representative of the variety from which they come, which for the purpose of this research represents different specialties. This general definition of corpus has been maintained for several years. As such, Sinclair, in one of his works, gives us the following definition: “(...) a corpus is a collection of naturally-occurring language text, chosen to characterize a state or variety of a language.” Sinclair (1991: 171). Years later, the EAGLES group provided a similar definition: “Corpus: A collection of pieces of language that are selected and ordered according to explicit linguistic criteria in order to be used as a sample of the language.” EAGLES (Expert Advisory Group on Language Engineering Standards) (1996: 4)

It is important to mention that our corpus complies with the main characteristics provided by the above definitions, mainly the fact that they are natural samples, selected from a great variety of texts in each area, and they were not created or translated with the mere purpose of being used in our research. On the other hand, the purpose of the selected texts is to be a representation of the specialized language of each area.

### 2.3.2 Specialized Translation

In the words of Franco Aixelá (2015), the only requirement for a text to be specialized is that the language and conceptual framework used require "special" knowledge for its processing. Pursuant to Cabré (1993), each specialty language can be modernized at different levels of specialty, with the highest peak corresponding to specialist communication and the lowest point corresponding to general public informational communications. Years later, Cabré gives a more specific definition.

*Predominantly verbal products, of specific communicative registers specific communicative registers, that deal with topics specific to a field of specialty (or rather, a specialized field of specialization (or rather, of a field of specialized knowledge), that respect rhetorical-stylistic traditions and conventions, and which give rise to specific textual classes. (Cabré, 2002: 22).*

Therefore, the specialized text is the linguistic product resulting from the transmission of specialized knowledge (Cabré, 1999).

Understanding this concept, it should be pointed out that when it comes to specialized translation, there is always an added complexity in comparison with general translation due to the specialized terminology contained in each field of specialization. In order to translate these texts, the translator must not only be familiar with the respective specialized terms in both languages, but also with the area of specialization as a whole. Therefore, the translator has to understand the texts before translating it (Zanón, 2012). And even though this is a task that is important in every type of translation, it becomes more important when it comes to more specialized texts.

### 2.3.3 Informative Texts

The informative or divulgative texts are those intended for a wide audience that use general information and a usually formal vocabulary. The purpose of this type of text, as mentioned by Muñoz (2012:2), is: "to transmit knowledge previously elaborated in a specialized register (with a particular conceptual system that requires the use of a high degree of technical terms) to an audience that has had little or no contact with that register". Likewise, she defines "divulgation" as: a discursive activity whose purpose is the extension of knowledge outside the

expert community. Therefore, the task of the popularizer is to simplify, synthesize and exemplify knowledge that has been constructed with a specialized language, with the concepts of a particular discipline.

Understanding this, it is important to point out that some authors consider that a text does not cease to be specialized when it is informative, although its degree of specialization and abstraction is lower (Guerrero, 1999). And, therefore, these are described in the same way as specialized texts: from the discursive conditions and textual characteristics (Tapia, 2016).

For the reasons exposed above, this type of text will be addressed in this work as “informative texts” or “divulgative texts” and not as “non-specialized texts”.

#### **2.3.4 Literary Texts**

To the question of what is a literary text, this research will be based on the definition given by Muslat, A. W. M. (2012), who says: “it encompasses all types of literature, whether prose or verse. The short story, novel, drama, essay, and critical text are among them.” The author states that these types of texts have their own unique vocabulary that is distinct from every day or “normal” speech. This particular language is the outcome of a specialized manner of using words (for example, the use of synonyms), grammatical structures, and sentence patterns to produce emotional, mental, psychological, imaginary, and even dream-like experiences that standard language fails to achieve.

#### **2.3.5 Technical Texts and Scientific Texts**

It is common to see that scientific and technical texts convey into one unit. Some authors state that it is difficult to establish a difference between science and technical texts. This because of how over the years these are more related and, therefore, science and technique are deeply united (Álvarez de Mon y Rego, 2019).

Gomez (2011), states that there is no uniformity in the way of calling the texts that deal with these fields of knowledge. Some authors who work on specialized texts refer to them as

technical and scientific texts, while others consider them as a single type of text (scientific-technical).

In view of this disagreement, Gomez (2011) considers the work of Gamero (2001) in which he states that 'the sciences have as their objective the study of natural realities like substances, the stars, life. While on the contrary, techniques focus on objects as machines or instruments manufactured by the human. Given this basis, Gomez concludes that the main difference is that science deals with theoretical aspects and is more associated with the phenomena of nature, while technique (or technology) concentrates more on the application of the knowledge of science.

To follow up in this difference between technical and scientific texts, the book *Jornades Catalanes sobre Llengües per a Finalitats Específiques* (1999:128) gives a more specific definition for technical texts: “monolithic text, a silent discourse that provides pragmatic information and portrays real, observable experiences, exterior world aspects.” The author of these type of texts aim to convey a message to the technical or scientific community for the realization of a certain activity, the descriptions made in technical writings are objective and precise.

They are distinguished by the usage of a technolect that defines them as such, i.e. a system distinct from the conventional language in which they are characterized by a rational and transparent terminology, rigorous organization, and certain unique traits.

Nevertheless, the terminological analysis of technical language also reveals complex polysystems with properties similar to those of ordinary language, in particular, approximate analogies that result in false friends, misleading motivations, false monosemies, polysemies, and frequent synonyms.

## **Chapter 3 Methodological framework**

### **Methodological framework**

It is convenient to talk about the research process carried out in this investigation. Extensive documentation was done on the key concepts related mainly to translation, audiovisual translation (for the analysis of informative texts), and automatic translators (Neuronal and statistics). These concepts were investigated to understand the functioning and the process involved in both translations (MT and HT). After this process, a broad search was made for texts that met the requirements imposed for the research, among them, that the ST have an official translation as TT into Spanish made by HT, containing at least 100 words, in order to have a significant sample in terms of the corpus and to be able to have an in-depth analysis. A survey was also conducted to find out people's perceptions of machine translators and whether they can recognize a translation done by MT or HT. Regarding the ethical factors involved in this research, the analysis of the translation errors present in the texts and the survey was carried out with the relevant responsibility and professionalism.

### **3.1 Type of research**

The present work is a mixed type of study. Research is considered to be of a mixed type when quantitative and qualitative methods are combined, whose main objectives are to study and explore a phenomenon from different perspectives. In this case, the quality of translations from English to Spanish by machine translation. Author Alicia Hamui-Sutton (2013) indicates that the Mixed method helps to create a broader picture that strengthens the interpretation of the results and is related to the pragmatic philosophy focusing on the results of action in the real world. The present research coincides with the method described, because it shows the reality of translations created by MT through an analysis and comparison with human translations, in addition to investigating the role that these tools play today. A mixed method was implemented with a model to develop instruments, described by the author Alicia Hamui-Sutton (2013) where the first phase of research is qualitative and the second phase quantitative, thus having

a broader view through surveys, so that not only will be the vision of the researchers but also of other people involved.

In terms of scope, this research is comparative descriptive in nature, its main objective is to observe the phenomenon of machine translation, to describe important characteristics and features, while at the same time investigating and finding the causes of the quality of these tools by means of a comparative analysis. Daniel Cauas (2015) describes this scope as the study that describes phenomena in a given temporal circumstance to specify the important properties of the object under analysis. This research studies two variants to see their differences, which gives it a comparative nature. This paper focuses on the process and results of human and machine translation.

The present research seeks to expand the knowledge of the reality of machine translators and their quality in order to examine whether they are a good aid to the process of translating texts more efficiently. In other words, the aim is to expand the knowledge in the literature in the area of languages, specifically Translation, about a relatively unknown and recent field: machine translation based on two different types of neural and statistical programming.

The particular phenomenon that was analyzed is how technological advances in the field of translation can create new dynamics in the activity of Translation, and how these have been able to create different perceptions on the part of the human translators in question about their quality and use in the process of translating. The results of the analysis of the texts based on their translation errors and the results of the survey served to establish to a certain extent the perception of these programs and their quality. In this way, it was possible to find out whether machine translation is a good translation aid and to postulate itself as a CAT tool.

### **3.2 Instruments for research**

The type of instruments used to collect data for the analysis of the translations of both, the machine and human translators, allowed the identification of the differences determined by the errors made.

In relation to the instruments, the book "Estudio comparativo de diferentes métodos de evaluación de traducción general" (Comparative Study of Different Methods of General

Translation Evaluation) by Christopher Waddington (2000), the classification of errors described by the ATA, and a comparative table extracted from the research "An analysis of translation errors in 5 literary genres based on American Translation Association (ATA) framework" by Fatemeh Soltani , Azadeh Nematı and Mortaza Yamini were used as a source. These instruments were used, since the authors develop each element that must be taken into account for the correct revision of a translation, as well as for the identification of errors.

### **3.3 Analysis development**

For the correct development of the analysis, the parallel corpus method was used, which is a corpus consisting of original texts in one language with their translation in another parallel corpus, as described in the study of the author Jos Hallebeek (1999). For the selection of texts, their complexity was separated into 4 levels, the first represented by informative texts, the second by technical texts, the third by scientific texts and the fourth by literary texts, the first two being less complex and therefore presenting a lower number of serious translation errors, and the last two representing a higher complexity. The complexity of these texts was based on the type of target audience and the language used in the writing, having that the informative texts as Garcıa and Sosa (2014) indicate is directed to a general public and is easy to understand due to its use of standard vocabulary. Garcıa and Sosa (2014) also indicate that scientific texts are specialized texts that are aimed at an expert audience, as they use specific terminology. For its part, Dos Santos and Alvarado (2012) point out that the translation of literary texts is one of the most complex due to the level of interpretation, linguistic and cultural knowledge required, as well as other factors such as the author's style and the message he/she wants to deliver. Finally, in accordance with Bruno, Luque and Ferreyra (2016) the difficulty in translating technical texts resides in the field in which they are produced, which is mainly in industry. The language used in these texts is usually in line with the company's brand image, vocabulary that must be preserved. Correspondingly, the steps in the development of the analysis of each text by level were as follows: selection of texts, separation of segments, use of automatic translators, analysis of texts in parallel corpus, identification of differences, measurement of translation quality, identification of errors, and finally at the end of the analysis of each level of complexity, the errors found are summarized in a table and a short conclusion is given.

The text selection requirements were as follows: English texts containing more than 500 words were sought in order to select segments of at least 100 words for subsequent analysis; each text had to have an official Spanish translation by a human translator; and finally, 4 texts with different themes were chosen for each level of complexity. Once the 4 texts per level were selected, a minimum of 100 words ending with an idea were chosen for each one of them. A table was created as a parallel corpus to arrange each of the segments in boxes, as follows:

**Table 1**  
*parallel corpus*

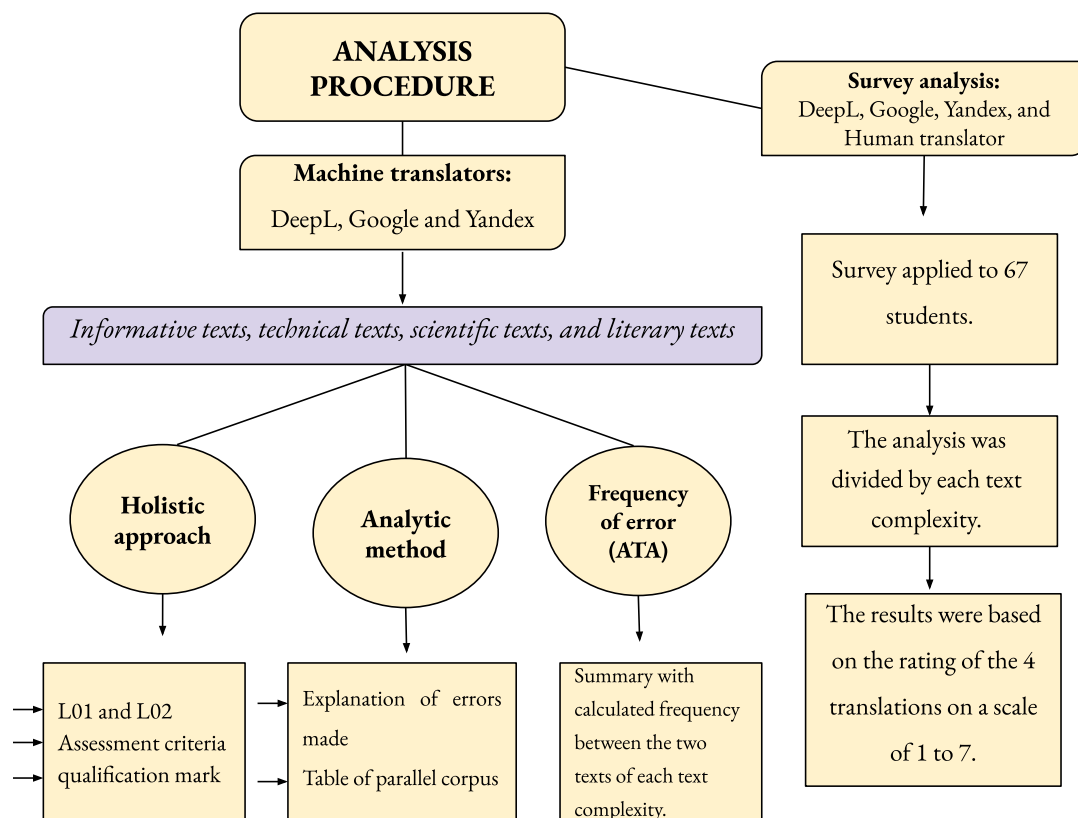
Retrieved from	Text title	Amount of words
Source Text	corresponding corpus	Amount of words
Target Text	corresponding corpus	Amount of words
DeepL Translation	corresponding corpus	Amount of words
Google Translate Translation	corresponding corpus	Amount of words
Yandex Translation	corresponding corpus	Amount of words

*Table: own work. The source text corresponds to the corpus of minimum 100 words extracted from the English text, the target text corresponds to the corpus of X number of words from the official translation of the text. The number of words is specified in the corresponding box.*

The selected segments of the English source texts are processed in the different programs to provide a Spanish translation, which is then placed in the corresponding boxes for further analysis. The program Word was used to count the words in the source text and their translations. It was considered convenient to count the words, since they show us the first signs of differences between the corpus and a possible Omission or Addition in the translation. The translation software used were DeepL Translate, Google Translate and Yandex Translate; the first two correspond to neural translations and the last one to a statistical translation. It is worth mentioning that the version of the three programs used was the free version. The requirement for choosing these programs was their popularity among the public, finding that Google Translate is the most used program, DeepL is moderately well known and Yandex is a translator that is not so well known. This was based on the opinions of the general users in blogs and social medias.

Using the parallel corpus created between the five texts (source text, official translation and the three translations provided by the MT), in the first instance it was analyzed the corpus to highlight the main differences between the official translation and each of the translations provided by the machine translator. For the main purposes of this research, the official translation of each text was used as the ideal translation, in order to have a comparative analysis. In other words, each translation given by the three MT was compared with the official translation and with its source text in English. In order to know if the message and meaning of each segment was correctly transferred to the target language. All differences in translations were marked in **bold**.

**Figure 2**  
*Analysis Procedure*



*Note: own work.*

The analysis of each translation was carried out in two phases, the first by means of a holistic analysis and the second by means of an analytical analysis. The holistic approach used in this research is the one used by CIOL for Certificate in Translation (CertTrans). The table is divided in two parts:

- LO1: Be able to produce translation of a general text that shows accurate transfer of information
- LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

In addition, the table had five columns which are:

- Assessment criteria
- Fail
- Pass
- Merit
- Distinction

The evaluation was carried out according to the different descriptions for each qualification mark (fail, pass, merit, and distinction). This approach was performed together with analytical method, in order to respect as good as possible the assessment criteria and qualification marks.

**Table 2**

*Holistic approach by CIOL for Certificate in Translation (CertTrans)*

LO1: Be able to produce translation of a general text that shows accurate transfer of information				
Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations	<ul style="list-style-type: none"> <li>- Information transferred inadequately</li> <li>- There are multiple omissions, additions, distortions or misinterpretations, many of which distort the overall meaning of the translation</li> </ul>	<ul style="list-style-type: none"> <li>- Information transferred adequately</li> <li>- Several minor instances of omissions, additions, distortions or misinterpretations, which do not distort the overall meaning of the translation</li> <li>- There are several instances of under or over translation and lack of clarity</li> </ul>	<ul style="list-style-type: none"> <li>- Information transferred well</li> <li>- A few minor omissions, additions; distortions or misinterpretations which do not distort the overall meaning of the translation</li> <li>- There are a few instances of under or over translation or some lack of clarity in places</li> </ul>	<ul style="list-style-type: none"> <li>- Information transferred to an advanced level</li> <li>- There are one or two omissions, additions; distortions or misinterpretations which do not distort the overall meaning of the translation</li> </ul>

1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon	<ul style="list-style-type: none"> <li>- Inadequate application of semi-specialist terminology, vocabulary and any jargon in the transfer of information to an acceptable level</li> <li>- There are multiple instances of incorrect terminology, vocabulary and jargon</li> </ul>	<ul style="list-style-type: none"> <li>- Uses adequate semi-specialist terminology, vocabulary and jargon in the transfer of information, which is appropriate in most cases</li> <li>- There are several minor errors which do not have an impact on the overall meaning of the translation</li> </ul>	<ul style="list-style-type: none"> <li>- Uses a good level of semi-specialist terminology, vocabulary and jargon in the transfer of information which is appropriate</li> <li>- There are a few minor errors which do not have an impact on the overall meaning of the translation</li> </ul>	<ul style="list-style-type: none"> <li>- Uses sophisticated semi-specialised terminology and jargon in the transfer of information</li> <li>- There are one or two errors which do not have any impact on the overall meaning of the translation</li> </ul>
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language	<ul style="list-style-type: none"> <li>- Transfer of subsidiary information and register and tone from the source language into the target language is inaccurate in most instances</li> </ul>	<ul style="list-style-type: none"> <li>- Transfer of subsidiary information and register and tone from the source language into the target language is generally accurate</li> <li>- There are several minor errors and under translations</li> </ul>	<ul style="list-style-type: none"> <li>- Transfer of subsidiary information and register and tone from source language into the target language is mostly accurate</li> <li>- There are a few minor errors or under translations</li> </ul>	<ul style="list-style-type: none"> <li>- Transfer of subsidiary information and register and tone from source language into the target language is accurate</li> <li>- There are one or two minor errors</li> </ul>

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language	<ul style="list-style-type: none"> <li>- The translation shows insufficient command of grammar, syntax, and idiomatic use of language</li> <li>- Multiple errors and interferences between languages</li> </ul>	<ul style="list-style-type: none"> <li>- The translation shows mostly reliable command of grammar, syntax, and idiomatic use of language</li> <li>- There are several minor errors which do not have an impact on the overall meaning of the translation</li> </ul>	<ul style="list-style-type: none"> <li>- The translation shows a reliable command of grammar, syntax, and idiomatic use of language</li> <li>- There are a few minor errors which do not have an impact on the overall meaning of the translation</li> </ul>	<ul style="list-style-type: none"> <li>- The translation shows an excellent and consistent command of grammar, syntax, and idiomatic use of language</li> <li>- There are one or two minor errors which do not change the meaning of the translation</li> </ul>
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent	<ul style="list-style-type: none"> <li>- The target language is insufficiently organised, cohesive, and coherent</li> <li>- With multiple errors</li> </ul>	<ul style="list-style-type: none"> <li>- The target language is adequately organised, cohesive, and coherent</li> <li>- With several minor errors</li> </ul>	<ul style="list-style-type: none"> <li>- The target language is competently organised, cohesive and coherent in most cases</li> <li>- With a few minor errors</li> </ul>	<ul style="list-style-type: none"> <li>- The target language is skilfully organised, cohesive, and coherent</li> <li>- The target language reads like a piece originally written in the target language with one or two minor errors</li> </ul>
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)	<ul style="list-style-type: none"> <li>- The translation does not conform to the conventions of the target language on most occasions</li> <li>- There are multiple errors that impact on the overall meaning</li> </ul>	<ul style="list-style-type: none"> <li>- The translation adequately conforms to the conventions of the target language</li> <li>- There are several minor errors which do not have any impact on the overall meaning</li> </ul>	<ul style="list-style-type: none"> <li>- The translation competently conforms to the conventions of the target language</li> <li>- There are a few minor errors which do not have any</li> </ul>	<ul style="list-style-type: none"> <li>- The translation expertly conforms to the conventions of the target language</li> <li>- There are one or two minor errors which do not</li> </ul>

	of the translation	of the translation	impact on the overall meaning of the translation	impact on the overall meaning of the translation
--	--------------------	--------------------	--	--

Note: from CIOL Chartered Institute of Linguists, by CIOL Qualifications, 2022 (<https://www.ciol.org.uk/CertTrans>)

The analytical method was performed according to the ATA error categorization. Only 24 errors of 26 errors shown by ATA were taken into account. **Other Errors** and **Other Meaning Transfer Errors** were excluded, since the decision to choose one of these errors could be subjective. The analysis was performed by dividing each text into several small segments, for this purpose the following tables were created:

**Table 3**

*Analytical method for DeepL translation*

Source Sentence	Official Translation	DeepL translation
corresponding corpus	corresponding corpus	corresponding corpus

*\*Own work*

**Table 4**

*Analytical method for Google translation*

Source Sentence	Official Translation	Google translation
corresponding corpus	corresponding corpus	corresponding corpus

*\*Own work*

**Table 5**

*Analytical method for Yandex translation*

Source Sentence	Official Translation	Yandex translation
corresponding corpus	corresponding corpus	corresponding corpus

*\*Own work*

The analyzed segments were carefully evaluated, in order to detect errors correctly as well as possible. Each machine translator was analyzed with the same segments, in other words, all the

segments were the same for each machine translator. The errors or differences were marked in **bold** and, then below each table, the errors made in each segment were explained in detail.

Finally, as a summary, the frequency of each error was calculated with the total sum of the data from both text for each complexity. Additionally, below this frequency table, a detailed explanation of the table and a small conclusion were made. This summary is made with the following table:

**Table 6**

*ATA errors and their frequency*

Type of Text						
Types of error	Google Translate		DeepL		Yandex	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Addition						
Ambiguity						
Capitalization						
Cohesion						
Diacritical Marks						
Faithfulness						
Faux Ami						
Grammar						
Illegibility						
Indecision						
Literalness						
Misunderstanding						
Omission						
Punctuation						
Register						
Spelling						

Style						
Syntax						
Terminology						
Text Type						
Unfinished						
Usage						
Verb Form						
Word Form Part of Speech						

Note: modified from source Soltani, F., Nemati, A., & Yamini, M. (2020). *An analysis of translation errors in 5 literary genres based on American Translation Association (ATA) framework*. *Cogent Arts & Humanities*, 7(1), 1799732.

### **3.4 Survey development**

To know the perception that translation students have about Machine Translation, by detecting errors and measuring the quality of the translations through parallel texts that allow to know if the message was transferred correctly. A multi-item survey method based on the Likert scale was implemented, carried out via online using the Google Form application. The survey was conducted among Translation students from Universidad de Atacama. The survey was divided into six phases, and was divided according to the complexity of each text. The order being as follows: informative texts, technical texts, scientific texts, and literary texts. Each phase had five stages, where a parallel corpus of four translations were shown. To keep the answers neutral, the name of the translators were not provided to the students. For that reason, the translators were named as: translator 1 (DeepL), translator 2 (Google), translator 3 (Yandex), and translator 4 (Human translation). The source text segment displayed as a parallel corpus was the same for the four translators. Additionally, the differences or errors were marked in bold, in order to speed up the process since the estimated time to complete the survey was between 25 and 30 minutes.

Regarding each phase, the first phase corresponds to questions about the student, such as his or her level of study, since the translation career for the second semester is composed of level 102 to level 500, with level 500 being the last year of study. They were also asked about their

level of English. The second phase corresponds to the informative texts, where a segment of the source text and the corresponding translations of each translator are presented in the form of a parallel corpus. Five questions were asked about each of the translations, with five possible alternatives, ranging from strongly disagree to strongly agree. Finally, there was a question to grade each of the translations from 1 to 7, with 1, 2 and 3 being a measure of a low-quality translation (1 being the lowest grade), while 4 is the minimum grade accepted for the quality of the translation to pass. Following this, grades 5, 6 and 7 represent a high-quality translation, with 7 being the highest. On the other hand, phase 3 corresponds to technical texts, phase 4 to scientific texts and phase 5 to literary texts. The three phases mentioned above contain the same questions and details as phase 2 of informative texts. Finally, phase 6 corresponds to 4 questions regarding the use and recommendation of automatic translators, with 5 alternatives to answer, corresponding to: definitely not, probably not, unsure, probably yes and definitely yes.

Note: the survey model has been provided in the annexes section.

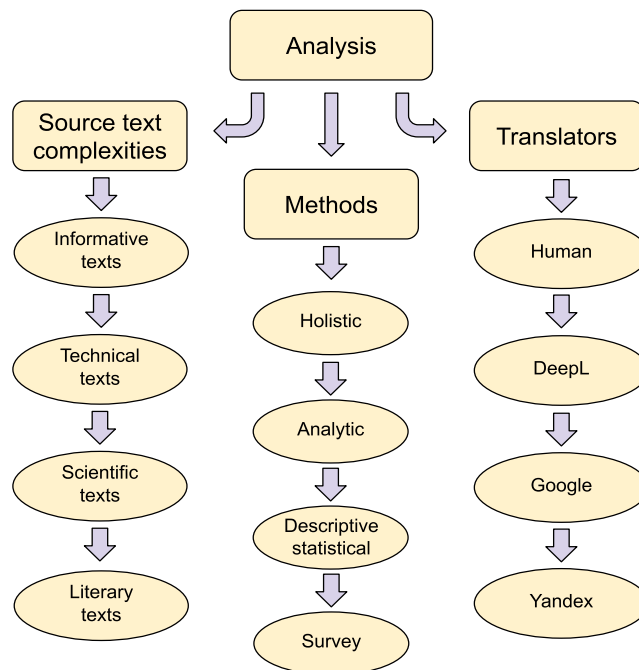
## Chapter 4 Analysis

### 4.1 ANALYSIS

To conduct a comparative analysis of machine translations of informative, technical, scientific and literary texts and an analysis of the perception of the quality of machine translations. The development of the research was carried out with different methodologies, firstly, the analysis of the translations made by the three machine translators (DeepL, Google and Yandex) in each of the complexities was submitted to two methods, holistic and analytical. Finally, in order to organize and quantify the errors made by each translator in each complexity, a descriptive statistical method was applied to determine the mean and frequency of the errors made. On the other hand, for the analysis of the perception of the quality of machine translators, a survey method was applied to translation students in order to collect data on whether they believe that the transfer of the message was correct and error-free.

**Figure 3**

*Analysis*



*\*own work*

## 4.2 ANALYSIS OF THE CORPUS

### 4.3 Informative texts

#### **Text #1**

the following segment is an informative text extracted from a news item written by the UN on July 4, 2022. This news item is intended to report on the situation in Libya, a country that is facing rival administrations. Due to the situation there is a lot of violence in the country, and the news item reports on the discovery of mass graves in Tarhuna, and on the violation of human rights and violence against women. The official translation of the text was provided by the UN.

**Table 7**

*Parallel corpus of "Libya: new suspected mass graves found in Tarhuna, says UN human rights probe"*

Retrieved from	Corpus	Amount of words
	<i>Libya: new suspected mass graves found in Tarhuna, says UN human rights probe</i> (ONU)	
<b>Source Text</b>	<p><b>Targeted for speaking up</b></p> <p>Women and girls have not been spared the fall-out of Libya's destructive spiral since the <b>overthrow of former President Muammar Gaddafi</b>, in 2011.</p> <p>Today, despite significant recent progress in trying to resolve longstanding differences, the internationally-recognized <b>Government in Tripoli</b> is still at <b>odds with a rival administration and parliamentary authority in the east</b>.</p> <p><b>Among the Fact-Finding</b> Mission report's many disturbing findings is the fact <b>that when</b> women stepped forwards to present themselves <b>in yet-to-be-held national elections</b>, they became the target of discrimination or violence.</p> <p><b>Some have been abducted</b>, part of pattern of enforced disappearances which "continue unabated in Libya", Mr. Aujjar said, <b>pointing to Member of Parliament Sihem Sirgiwa, who was taken in 2019</b>.</p> <p>"Discrimination and violence are a feature of daily life for most women and girls in Libya," Mr. Aujjar continued. <b>"Of particular concern to the Mission is that the failure of the domestic law to provide protection against</b> sexual and gender-based violence is inherent to and contributes to impunity for such crimes."</p>	169

<p><b>Target Text</b> official translation by ONU</p>	<p><b>Mujeres y niñas en un país en crisis desde 2011</b></p> <p>Las mujeres y las niñas no se han librado de las consecuencias de la espiral destructiva desde que el país petrolero se hundió en el caos y la guerra civil cuando en 2011 fuerzas rebeldes apoyadas militarmente por una coalición liderada por la OTAN <b>derrocaron al presidente Muamar al-Gadafi</b>.</p> <p>Esa crisis llevó a dos grupos rivales a establecer sendas administraciones: un gobierno reconocido por la ONU y la comunidad internacional en general con sede en Trípoli, y otro a cargo del autodenominado Ejército Nacional Libio.</p> <p>En la actualidad, a pesar de los significativos avances recientes en el intento de resolver diferencias de larga data, el <b>gobierno de Trípoli</b> todavía está enfrentado con <b>una administración rival y una autoridad parlamentaria en el este</b>.</p> <p>Entre los muchos <b>hallazgos</b> inquietantes el informe de la Misión de Investigación reporta <b>que cuando</b> las mujeres se organizaron para presentarse en las elecciones nacionales <b>-que aún no se habían celebrado-</b>, se convirtieron en blanco de discriminación o violencia.</p> <p><b>Algunas fueron secuestradas</b> en el marco del patrón de desapariciones forzadas que "no cesa en Libia", enfatizó Aujjar, <b>citando el caso de la parlamentaria Sihem Sirgiwa, raptada</b> en 2019.</p> <p>"La discriminación y la violencia son una característica de la vida cotidiana de la mayoría de las mujeres y niñas en Libia", explicó Aujjar. <b>"A la Misión le preocupa especialmente que la ley interna no brinde protección contra la violencia sexual y de género ya que esta carencia contribuye a la impunidad de tales delitos"</b>, apuntó.</p>	<p>256</p>
<p><b>DeepL</b> Translation #1</p>	<p><b>Perseguidos por hablar</b></p> <p>Las mujeres y las niñas no se han librado de las consecuencias de la espiral destructiva de Libia desde el <b>derrocamiento del ex presidente Muamar Gadafi</b>, en 2011.</p> <p>En la actualidad, a pesar de los recientes e importantes avances en el intento de resolver las antiguas diferencias, el <b>Gobierno de Trípoli</b>, reconocido internacionalmente, sigue enfrentado a una <b>administración y una autoridad parlamentaria rivales</b> en el este del país.</p> <p>Entre las numerosas <b>conclusiones</b> inquietantes del informe de la Misión de Investigación se encuentra el hecho <b>de que</b> cuando las mujeres dieron un paso al frente para presentarse a las elecciones nacionales <b>aún no celebradas</b>, se convirtieron en objeto de discriminación o violencia.</p> <p>Algunas <b>han sido</b> secuestradas, lo que forma parte de un patrón de desapariciones forzadas que "continúa sin cesar en Libia", dijo el Sr. Aujjar, <b>señalando a la diputada Sihem Sirgiwa</b>, que fue secuestrada en 2019.</p> <p>"La discriminación y la violencia son una característica de la vida cotidiana para la</p>	<p>221</p>

	<p>mayoría de las mujeres y las niñas en Libia", continuó el Sr. Aujjar. "<b>Es especialmente preocupante para la Misión que el fracaso de la ley nacional</b> para proporcionar protección contra la violencia sexual y de género es inherente y contribuye a la impunidad de tales crímenes."</p>	
<p><b>Google Translate</b> Translation #1</p>	<p><b>Dirigido por hablar</b></p> <p>Las mujeres y las niñas no se han librado de las consecuencias de la espiral destructiva de Libia desde el <b>derrocamiento</b> del expresidente <b>Muammar Gaddafi</b> en 2011.</p> <p>En la actualidad, a pesar de los significativos avances recientes en el intento de resolver diferencias de larga data, el <b>Gobierno de Trípoli</b>, reconocido internacionalmente, todavía está en desacuerdo con una administración rival y una autoridad parlamentaria en el este.</p> <p>Entre los muchos hallazgos inquietantes del informe de la Misión de Investigación se encuentra el hecho <b>de que</b> cuando las mujeres dieron un paso al frente para presentarse en las elecciones nacionales <b>que aún no se habían celebrado</b>, se convirtieron en blanco de discriminación o violencia.</p> <p><b>Algunos han sido secuestrados</b>, parte del patrón de desapariciones forzadas que "continúan sin cesar en Libia", dijo Aujjar, <b>señalando al miembro</b> del parlamento Sihem Sirgiwa, quien fue <b>secuestrado</b> en 2019.</p> <p>"La discriminación y la violencia son una característica de la vida cotidiana de la mayoría de las mujeres y niñas en Libia", continuó el Sr. Aujjar. "<b>De particular preocupación</b> para la Misión es <b>que el hecho de que</b> la ley interna no brinde protección contra la violencia sexual y de género es inherente y contribuye a la impunidad de tales delitos".</p>	207
<p><b>Yandex Translate</b> Translation #1</p>	<p><b>Dirigido a alzar la voz</b></p> <p>Las mujeres y las niñas no se han librado de las consecuencias de la espiral destructiva de Libia desde el derrocamiento del <b>ex presidente Muammar Gaddafi</b> en 2011.</p> <p>Hoy en día, a pesar de los importantes avances recientes en el intento de resolver las diferencias de larga data, el <b>Gobierno de Trípoli</b>, reconocido internacionalmente, sigue en desacuerdo con una administración rival y una autoridad parlamentaria en el este.</p> <p>Entre los muchos hallazgos inquietantes del informe de la Misión de Investigación se encuentra el hecho <b>de que</b> cuando las mujeres dieron un paso adelante para presentarse en elecciones nacionales <b>que aún no se habían celebrado</b>, se convirtieron en blanco de discriminación o violencia.</p> <p><b>Algunos han sido secuestrados</b>, parte de un patrón de desapariciones forzadas que</p>	207

	<p>"continúa sin cesar en Libia", dijo Aujjar, <b>señalando al miembro del Parlamento</b> Sihem Sirgiwa, que fue <b>capturado</b> en 2019.</p> <p>"La discriminación y la violencia son una característica de la vida cotidiana de la mayoría de las mujeres y niñas en Libia", continuó el Sr. Aujjar. "Preocupa especialmente a la Misión <b>que el hecho de que el derecho</b> interno no brinde protección contra la violencia sexual y de género sea inherente a esos delitos y contribuya a su impunidad."</p>	
--	--	--

**Table 8**

*Holistic Approach for DeepL translation (informative text)*

- Holistic Approach (Translation made by DeepL)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			<input checked="" type="checkbox"/>	
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		

2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			<input checked="" type="checkbox"/>	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			<input checked="" type="checkbox"/>	

- Analytical Method (Translation made by DeepL)

**Table 9**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Targeted for speaking up	Mujeres y niñas en un país en crisis desde 2011	<b>Perseguidos por hablar</b>

In this case, the errors made by the Machine Translator were **Grammar** and **Literalness**. The translation is not bad at all, because to a certain extent it is understood. The Grammar error is created with the word "Perseguidos", since in the context of the text it is referring to women and girls. The correct would be to use the word in feminine gender "Perseguidas". The second error Literalness is perceived in the whole sentence, since it was translated word by word and DeepL translator kept the same sentence structure in Spanish.

However, it is very clear how the Human Translator used the context and content of the text to modulate the sentence, in order to be better understood by providing more context for the reader.

**Table 10**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
the fall-out of Libya's destructive spiral since the overthrow of former President Muammar Gaddafi, in 2011.	las consecuencias de la espiral destructiva desde que el país petrolero se hundió en el caos y la guerra civil cuando en 2011 fuerzas rebeldes apoyadas	las consecuencias de la espiral destructiva de Libia desde el derrocamiento del ex presidente Muamar Gadafi, en 2011.

	militarmente por una coalición liderada por la OTAN derrocaron al presidente Muamar al-Gadafi.	
--	--	--

In this segment the main difference should be highlighted, which is the number of words in the sentence between both translations, this happens because the Human Translator used the **Explicitation** and **Amplification** Techniques to provide the reader even more context. Although the automatic translator did not make a mistake, since it did not omit any information and the message was delivered correctly, this difference should be noted, since thanks to this added information, the context of what is happening is better understood.

On the other hand, talking about the segment's errors, it found the **Proper name** problem with "Muammar Gaddafi". DeepL translator kept the English version which causes **Terminology**, and **Literalness** error. Also, the machine translator makes a **Grammar** error with the word "Ex presidente" because in Spanish the correct way to write it is together as it was done in the official translation "Expresidente". Finally, in the phrase "derrocamiento del ex presidente" there is a **Literalness** error caused by an incorrect expression that creates redundancy. The term "derrocamiento" implies the overthrow of a government or a person related to it, so it is understood that it is a former government, so it would be better to omit the particle "Ex" as it was done in the translation made by human.

**Table 11**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Today, despite significant recent progress in trying to resolve longstanding differences, the internationally-recognized Government in Tripoli is still at odds with a rival administration and parliamentary authority in the east.	Esa crisis llevó a dos grupos rivales a establecer sendas administraciones: un gobierno <b>reconocido por la ONU</b> y la comunidad internacional en general con sede en Trípoli, y otro a cargo del autodenominado Ejército Nacional Libio. En la actualidad, a pesar de los significativos avances recientes en el intento de resolver	En la actualidad, a pesar de los recientes e importantes avances en el intento de resolver las antiguas diferencias, el <b>Gobierno de Trípoli</b> , reconocido internacionalmente, sigue enfrentado a <b>una administración y una autoridad parlamentaria rivales</b> en el este del país.

	diferencias de larga data, el gobierno de Trípoli todavía está enfrentado con una administración rival y una autoridad parlamentaria en el este.	
--	--	--

In this segment, the difference in the number of words is evident, because the human translator chose to provide more information to better understand the context and avoid possible ambiguity when providing the message. For example, by including the sentence "Reconocido por la ONU" shows that the human translator always takes into account the full context of the information and based on that reproduces the message in the most natural way for the speakers of the target text. However, not including this additional information does not constitute a translation error. Regarding translation errors, in the sentence "Gobierno de Trípoli" there is an error of **Capitalization** as the rules on capitalization are not respected with the word "Gobierno" that should be in lower case. In the sentence "una administración y una autoridad parlamentaria rivales" there is an error of **Ambiguity** and **Misunderstanding**, specifically with the word "rivales" because in the source text this adjective only qualifies the noun "administración". In this way, it can be interpreted in two ways: 1) The administration and the parliamentary authority are rivals of the government of Tripoli. 2) The administration is a rival to parliamentary authority.

**Table 12**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Among the Fact-Finding Mission report's many disturbing <b>findings</b> is the fact that	Entre los muchos <b>hallazgos</b> inquietantes el informe de la Misión de Investigación reporta que cuando	Entre las numerosas <b>conclusiones</b> inquietantes del informe de la Misión de Investigación se encuentra el hecho <b>de que</b> cuando

A **Terminology** error was identified with the translation of the word "findings" that was translated as "conclusiones" by DeepL translation, since taking into account the context the

correct equivalence is "hallazgos", because the text alludes to a discovery. The words "de que" are a **Grammar** error, as it is a dequeism, which in Spanish should be avoided.

**Table 13**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
in yet-to-be-held national elections,	en las elecciones nacionales - que aún no se habían celebrado-	a las elecciones nacionales aún no celebradas,

In this segment there was not any translation error, however, it is good to highlight the choice of the official translator by putting the words "que aún no se habían celebrado" between em dashes (-, -) that in Spanish are used to make clarifications. This shows that MT translate under the given parameters, while the HT has more freedom when translating.

**Table 14**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Some have been abducted	Algunas fueron secuestradas	Algunas <b>han sido</b> secuestradas

The verb form of the passive voice in the present perfect tense in the DeepL translation "han sido" is not frequently used by Spanish speakers in Latin America, who prefer to use the simple past for this type of sentence, which makes this verb form uncommon and unnatural for the reader, creating a **Verb Form** error.

**Table 15**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Mr. Aujjar said, <b>pointing</b> to Member of Parliament Sihem Sirgiwa, who was taken in 2019.	Aujjar, <b>citando el caso</b> de la parlamentaria Sihem Sirgiwa, raptada en 2019.	Sr. Aujjar, <b>señalando</b> a la diputada Sihem Sirgiwa, que fue secuestrada en 2019.

A **Terminology** error occurred with the word "pointing" which was translated by DeepL as "señalando", which in turn creates a **Literalness** error, the context was not taken into account, because the parliamentarian that Aujjar is referring to is still a case of disappearance, so it is impossible to point out the person, the best thing would be to point out the case or cite it.

**Table 16**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
"Of particular concern to the Mission is that <b>the failure of the domestic</b> law to provide protection against sexual and gender-based violence is inherent to and contributes to impunity for such crimes."	" <b>A la Misión le preocupa especialmente que la ley interna no brinde protección</b> contra la violencia sexual y de género ya que esta carencia contribuye a la impunidad de tales delitos"	" <b>Es especialmente preocupante para la Misión que el fracaso de la ley nacional</b> para proporcionar protección contra la violencia sexual y de género es inherente y contribuye a la impunidad de tales crímenes."

More than one error was found in this segment, due to the fact that these errors are somehow related in this segment. Throughout the segment there is a **Cohesion** error, since the understanding of the text is made difficult due to several interferences, such as the cacophony, which occurs in the sentence "para proporcionar protección" where the sound of the "/p/ and /r/" is in repetition. Also, to the error of Cohesion is added an error of **Literalness** that also makes the message incomprehensible. For example, this error occurs with the word "Es especialmente preocupante para la Misión" because the same sentence structure that is in English was transferred to Spanish, leaving the subject of the sentence in the background, being optimal to leave the subject at the beginning of the sentence in this case, as did it the Human Translator: "A la Misión le preocupa especialmente"(or another similar option). Likewise, the entire segment maintains the same English structure transferred to Spanish. These errors show that the message was not well translated, which results in a **Faithfulness** error.

**Table 17***Holistic Approach for Google translation (informative text)*

- Holistic Approach (Translation made by Google)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			<input checked="" type="checkbox"/>	
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent		<input checked="" type="checkbox"/>		
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		<input checked="" type="checkbox"/>		

- Analytical Method (Translation made by Google)

**Table 18**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
Targeted for speaking up	Mujeres y niñas en un país en crisis desde 2011	Dirigido por hablar

In this segment, the errors of **Terminology** and **Literalness** were recognized. Considering the context, the word "Targeted" makes reference to women and girls who are attacked for expressing their discomfort or wanting to be part of a change in government. It can also be seen that there is a translation that maintains the same form of the original text, i.e. it was a word for word translation.

**Table 19**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
the fall-out of Libya's destructive spiral since the overthrow of former President Muammar Gaddafi, in 2011.	las consecuencias de la espiral destructiva desde que el país petrolero se hundió en el caos y la guerra civil cuando en 2011 fuerzas rebeldes apoyadas militarmente por una coalición liderada por la OTAN derrocaron al presidente Muamar al-Gadafi.	las consecuencias de la espiral destructiva de Libia desde el <b>derrocamiento del expresidente Muammar Gaddafi</b> en 2011.

The errors identified are **Terminology** and **Literalness**, because the proper name "Muammar Gaddafi" has its equivalents in Spanish that are "Muamar al-Gadafi" or "Muammar el-Gadafi", and the automatic translator only transferred the word keeping the same as the original text. A **Literalness** error had been identified with the phrase "derrocamiento del expresidente", as it is an incorrect expression that creates redundancy and was translated word by word. The term "derrocamiento" implies the overthrow of a government or a person related to it, so it is understood that it is a former government, so it would be better to omit the particle "Ex" as it

was done in the translation made by human. Finally, it should be noted that the human translator used **Amplification** and **Explicitation** techniques to provide more context so that the reader is more familiar with the information provided. However, failure to include this extra information is not an error.

**Table 20**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
Today, despite significant recent progress in trying to resolve longstanding differences, the internationally-recognized Government in Tripoli is still at odds with a rival administration and parliamentary authority in the east.	<p>Esa crisis llevó a dos grupos rivales a establecer sendas administraciones: un gobierno reconocido por la ONU y la comunidad internacional en general con sede en Trípoli, y otro a cargo del autodenominado Ejército Nacional Libio.</p> <p>En la actualidad, a pesar de los significativos avances recientes en el intento de resolver diferencias de larga data, el gobierno de Trípoli todavía está enfrentado con una administración rival y una autoridad parlamentaria en el este.</p>	<p>En la actualidad, a pesar de los significativos avances recientes en el intento de resolver diferencias de larga data, el <b>Gobierno de Trípoli</b>, reconocido internacionalmente, todavía está en desacuerdo con una administración rival y una autoridad parlamentaria en el este.</p>

This segment was selected because it shows a large difference in the number of words between the official translation and the machine translation. This occurred because the human translator used techniques such as **Explicitation** and **Amplification** to provide more context to the receiver. However, failure to do it, does not constitute an error. In this segment, one error was identified, which is of **Capitalization** and corresponds to the phrase "Gobierno de Trípoli" where the word "Gobierno" following the grammatical rules of Spanish should be in lower case since it is not a proper noun.

**Table 21***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
disturbing findings is the fact that when women	reporta que cuando las mujeres	el hecho <b>de que</b> cuando las mujeres

Regarding this segment, a **Grammar** error was identified with the words "de que", due to the fact that it is a dequeism in Spanish that should be avoided.

**Table 22***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
in yet-to-be-held national elections	elecciones nacionales -que aún no se habían celebrado-	elecciones nacionales que aún no se habían celebrado

In this segment, no errors were made; however, it is worth noting the choice made by the human translator, by putting the words "que aún no se habían celebrado" between em dashes (-, -) that in Spanish are used to make clarifications. This shows that automatic translators translate under the given parameters, while the HT has more freedom when translating.

**Table 23***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
Some have been abducted, part of pattern of enforced disappearances which "continue unabated in Libya", Mr. Aujjar said, pointing to Member of Parliament Sihem Sirgiwa, who was taken in 2019.	Algunas fueron secuestradas en el marco del patrón de desapariciones forzadas que "no cesa en Libia", enfatizó Aujjar, citando el caso de la parlamentaria Sihem Sirgiwa, raptada en 2019.	<b>Algunos han sido secuestrados</b> , parte del patrón de desapariciones forzadas que "continúan sin cesar en Libia", dijo Aujjar, <b>señalando</b> al <b>miembro</b> del parlamento Sihem Sirgiwa, quien fue <b>secuestrado</b> en 2019.

In this segment, it is possible to recognize with the word "Algunos" errors of **Usage** and

**Grammar**, due to the fact that with the context can be known that makes reference to women and girls, so we must use the particle "a" which in Spanish refers to the feminine pronoun.

A **Verb Form** error was identified with the words "han sido" this is because in Spanish the passive form of the present perfect is not common and natural for Latin American Spanish speakers, the most natural form is the simple past. Other errors of **Usage** and **Grammar** are made with the word "secuestrados". On the other hand, a **Terminology** error occurred with the word "pointing" which was translated as "señalando", which in turn creates a **Literalness** error, the context was not taken into account, because the parliamentarian that Aujjar is referring to, is still a case of disappearance, so it is impossible to point out the person, the best thing would be to point out the case or cite it. An **Ambiguity** error was committed with the words "al miembro" because this noun has no gender in Spanish, so an article must be placed before the noun to specify it, and in this case the context is about a woman. It should be noted that the name of the parliamentarian comes from a culture far from the Spanish-speaking one, so it is not possible to know her gender by her name, which also creates ambiguity, which is why it is best to specify the word "miembro" with the article "la". Finally, a **Usage** and **Grammar** error was made with the word "secuetrado", since there is a gender error as it should be feminine.

**Table 24**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
"Of particular concern to the Mission is that the failure of the domestic law to provide protection against sexual and gender-based violence is inherent to and contributes to impunity for such crimes."	"A la Misión le preocupa especialmente que la ley interna no brinde protección contra la violencia sexual y de género ya que esta carencia contribuye a la impunidad de tales delitos", apuntó.	<b>"De particular preocupación para la Misión es que el hecho de que</b> la ley interna no brinde protección contra la violencia sexual y de género es inherente y contribuye a la impunidad de tales delitos".

In this segment, a **Syntax**, **Cohesion** and **Literalness** error was identified, because the reading is difficult to follow as there is no correct order in the "De particular preocupación para la Misión es que el hecho de que" sentence due to the fact that it was translated keeping the same form of the original text. In addition, there are other interferences that do not allow the text to be understood, such as the cacophony created by the sounds "/e/ and /K/" of the sentence "es

que el hecho de que" that makes an error of **Usage**. Likewise, a **Grammar** error occurs with the word "de que" because it is a dequeism in Spanish.

**Table 25**

*Holistic Approach for Yandex translation (informative text)*

- Holistic Approach (Translation made by Yandex)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			<input checked="" type="checkbox"/>	
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			<input checked="" type="checkbox"/>	

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			<input checked="" type="checkbox"/>	

2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		<input checked="" type="checkbox"/>		
--	--	-------------------------------------	--	--

- Analytical Method (Translation made by Yandex)

**Table 26**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
Targeted for speaking up	Mujeres y niñas en un país en crisis desde 2011	Dirigido a alzar la voz

the sentence "Dirigido a alzar la voz" contains a **Terminology** and **Literalness** error. The context was not taken into account, it refers to women and girls who are attacked for expressing their opinion, due to the crisis in Libya. Also, the translation maintains the same structure of the source sentence.

**Table 27**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
the fall-out of Libya's destructive spiral since the overthrow of former President Muammar Gaddafi, in 2011.	la espiral destructiva desde que el país petrolero se hundió en el caos y la guerra civil cuando en 2011 fuerzas rebeldes apoyadas militarmente por una coalición liderada por la OTAN derrocaron al presidente Muamar al-Gadafi.	las consecuencias de la espiral destructiva de Libia desde el derrocamiento del <b>ex presidente Muammar Gaddafi</b> en 2011.

The first thing that can be appreciated is the amount of words, where the human translator used more than the automatic translator. This is because in the official translation the use of translation techniques can be appreciated, in order to provide more context to the reader. However, not including this extra information is not an error. Concerning the errors found, a

**Grammar** error was made with the word "ex presidente", this word in Spanish should go without separation as: "expresidente". Also, there is a **Literalness** error in the phrase "derrocamiento del ex presidente", as it is an incorrect expression that creates redundancy and was translated maintaining the same structure as the source sentence. As well, the term "derrocamiento" implies the overthrow of a government or a person related to it, so it is understood that it is a former government, so it would be better to omit the particle "Ex" as it was done in the translation made by human. Finally, was identified the **Terminology** and **Literalness** error, with the proper name "Muammar Gaddafi", because this name has its equivalents in Spanish that are "Muamar al-Gadafi" or " Muammar el-Gadafi", and the automatic translator only transferred the word keeping the same as the original text.

**Table 28**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
Today, despite significant recent progress in trying to resolve longstanding differences, the internationally-recognized Government in Tripoli is still at odds with a rival administration and parliamentary authority in the east.	<p>Esa crisis llevó a dos grupos rivales a establecer sendas administraciones: un gobierno reconocido por la ONU y la comunidad internacional en general con sede en Trípoli, y otro a cargo del autodenominado Ejército Nacional Libio.</p> <p>En la actualidad, a pesar de los significativos avances recientes en el intento de resolver diferencias de larga data, el gobierno de Trípoli todavía está enfrentado con una administración rival y una autoridad parlamentaria en el este.</p>	<p>Hoy en día, a pesar de los importantes avances recientes en el intento de resolver las diferencias de larga data, el <b>Gobierno de Trípoli</b>, reconocido internacionalmente, sigue en desacuerdo con una administración rival y una autoridad parlamentaria en el este.</p>

The difference in word count is due to the fact that the human translator included information through translation techniques to give more context and closeness to the reader about the

situation in Libya. however, not including this extra information is not an error. On the other hand, the **Capitalization** error was made with the word "Gobierno" that, following Spanish grammatical rules, should be in lower case: "gobierno".

**Table 29**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
disturbing findings is the fact that when women	reporta que cuando las mujeres	el hecho <b>de que</b> cuando las mujeres

Regarding this segment, a **Grammar** error was identified with the words "de que", as it is a dequeism in Spanish that should be avoided.

**Table 30**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
in yet-to-be-held national elections	elecciones nacionales -que aún no se habían celebrado-	elecciones nacionales que aún no se habían celebrado

In this segment, no errors were made; however, it was highlighted because of the decision made by the human translator by putting the words "que aún no se habían celebrado" between em dashes (-, -) that in Spanish are used to make clarifications.

**Table 31**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
Some have been abducted, part of pattern of enforced disappearances which "continue unabated in Libya", Mr. Aujjar said, pointing to Member of Parliament Sihem Sirgiwa, who was taken in 2019.	Algunas fueron secuestradas en el marco del patrón de desapariciones forzadas que "no cesa en Libia", enfatizó Aujjar, citando el caso de la parlamentaria Sihem Sirgiwa, raptada en 2019.	<b>Algunos</b> <u>han</u> <u>sido</u> <b>secuestrados</b> , parte de un patrón de desapariciones forzadas que "continúa sin cesar en Libia", dijo Aujjar, <b>señalando al miembro del Parlamento</b> Sihem Sirgiwa,

		que fue <b>capturado</b> en 2019.
--	--	-----------------------------------

The word "Algunos" due to the context, it is inferred that the word is talking about women and in Spanish this is represented by the particle "a", when the word was translated as "Algunos" with an "o" it created a **Usage** and **Grammar** error because this particle is associated with the male gender. In the same way, the word "secuestrados" makes the same **Usage** and **Grammar** error with the particle "o" that by the context should be "a" and be translated as "secuestradas". A **Verb Form** error was caused by the words "han sido" which is an uncommon and unnatural verb form for Latin American Spanish speakers who in these cases use the simple past and not the passive voice of the present perfect. On the other hand, an error of **Terminology** and **Literalness** was made with the word "señalando", since as it was translated implies that the parliamentarian is present in the same place as Aujjar is. However, the parliamentarian is still disappeared. Moving on to another error that was identified, the word "al miembro" which creates an error of **Ambiguity**, this is due to the fact that in Spanish this word has no gender, and in addition to this, the name of the parliamentarian is far from the target culture, which is why it is not possible to know her gender. In the same way as the automatic translation given by Yandex made several mistakes with the gender, always putting in masculine the nouns of the sentence. This creates ambiguity by not knowing if it is a woman or a man. A **Capitalization** error was committed with the word "Parlamento", since in Spanish public offices are written in lower case. Finally, a **Usage** and **Grammar** error was identified with the word "capturado", since there is a gender error as it should be feminine.

**Table 32**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
"Of particular concern to the Mission is that the failure of the domestic law to provide protection against sexual and gender-based violence is inherent to and contributes to impunity for such crimes."	"A la Misión le preocupa especialmente que la ley interna no brinde protección contra la violencia sexual y de género ya que esta carencia contribuye a la impunidad de tales delitos"	" <b>Preocupa</b> especialmente a la Misión <b>que el hecho de que el derecho</b> interno no brinde protección contra la violencia sexual y de género sea inherente a esos delitos y contribuya a su impunidad."

The word "Preocupa" causes a **Grammar** error, because this verb in this sentence in Spanish is working as a transitive verb, so there must be a direct object, in this case "le preocupa". On the other hand, a **Usage** error was made in the phrase "que el hecho de que el derecho", because throughout the phrase there is interference in the reading due to the cacophony of sounds /tʃ/, /K/ and /e/ made by the letters "qu, cho and e". Likewise, a **Grammar** error is created with the words "de que" which are a dequeism in Spanish that should be avoided.

## Text #2

The following segment is an informative text extracted from a news item written by the UN on January 20, 2022. It aims to inform about the scientific discovery of the world's largest reef, which was found off the coast of Tahiti. The official translation of the text was carried out by the UN.

**Table 33**

*Parallel corpus of "Rare coral reef discovered near Tahiti is 'like a work of art', says diver"*

Retrieved from	Corpus <i>Rare coral reef discovered near Tahiti is 'like a work of art', says diver</i> (ONU)	Amount of words
<b>Source Text</b>	<p>Buried treasure</p> <p><b>The reef find</b> is highly unusual because of its deep location, as the vast majority of the world's known <b>coral reefs only</b> descend to around 25 metres.</p> <p>The rose-like corals <b>measure up</b> to two metres in diameter and <b>the reef itself</b> is between 30 metres and 65 metres wide.</p> <p>"This discovery suggests that there <b>are many more</b> large reefs out there, at depths of <b>more than</b> 30 metres, in what is known as the ocean's 'twilight zone', which we simply do not know about," said <b>UNESCO, the UN scientific, educational and cultural organisation</b>.</p> <p><b>Hailing the</b> "incredible work" of scientists who suspected that there might be a spectacular coral reef off the coast of Tahiti, UNESCO <b>Director General</b> Audrey Azoulay noted <b>that only 20 per cent</b> of the entire seabed has been mapped.</p> <p>"We know the surface of the moon better than the deep ocean," she said. "This remarkable discovery in Tahiti demonstrates the incredible work of scientists who, with the support of UNESCO, further the extent of our knowledge about <b>what lies beneath</b>."</p>	175

<p><b>Target Text</b> official translation by ONU</p>	<p>Un tesoro enterrado</p> <p>Lo extraordinario <b>del hallazgo</b> es su profunda ubicación, ya que la gran mayoría de los <b>arrecifes</b> de coral de los que se tiene constancia en el mundo <b>solo</b> descienden hasta unos 25 metros.</p> <p>Los corales en forma de rosa suelen medir hasta dos metros de diámetro; sin embargo, <b>este arrecife mide</b> entre 30 y 65 metros de ancho.</p> <p>El descubrimiento sugiere que existen <b>muchos más</b> arrecifes de gran tamaño, <b>a profundidades superiores</b> a los 30 metros, en lo que se conoce como la "zona crepuscular" del océano, que es desconocida para nosotros", declaró la <b>Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO)</b>.</p> <p><b>Tras elogiar</b> el "increíble trabajo" de los científicos que sospechaban que podía haber un espectacular arrecife de coral frente a la costa de Tahití, la <b>directora general</b> de la UNESCO, Audrey Azoulay, señaló <b>que tan solo el 20%</b> del fondo marino está cartografiado.</p> <p>"Conocemos mejor la superficie de la luna que las profundidades del océano", dijo.</p> <p>"Este notable descubrimiento en Tahití demuestra el extraordinario trabajo de los científicos que, con el respaldo de la UNESCO, amplían nuestros conocimientos sobre lo que se esconde en <b>el fondo marino</b>".</p>	<p>198</p>
<p><b>DeepL</b> Translation #2</p>	<p>Un tesoro enterrado</p> <p>El hallazgo del <b>arrecife</b> es muy inusual debido a su ubicación profunda, ya que la gran mayoría de los <b>arrecifes</b> de coral conocidos en el mundo <b>sólo</b> descienden hasta unos 25 metros.</p> <p>Los corales en forma de rosa miden hasta dos metros de diámetro y <b>el propio arrecife</b> tiene entre 30 y 65 metros de ancho.</p> <p>Este descubrimiento sugiere que hay muchos más arrecifes de gran tamaño, a profundidades superiores a los 30 metros, en lo que se conoce como la "zona crepuscular" del océano, que simplemente desconocemos", declaró la <b>UNESCO, la organización científica, educativa y cultural de la ONU</b>.</p> <p><b>Alabando</b> el "increíble trabajo" de los científicos que sospechaban que podía haber un espectacular arrecife de coral frente a la costa de Tahití, la <b>Directora General</b> de la UNESCO, Audrey Azoulay, señaló que <b>sólo se ha</b> cartografiado el 20% de todo el fondo marino.</p> <p>"Conocemos mejor la superficie de la luna que las profundidades del océano", dijo.</p> <p>"Este notable descubrimiento en Tahití demuestra el increíble trabajo de los científicos que, con el apoyo de la UNESCO, amplían nuestros conocimientos sobre <b>lo que hay debajo</b>".</p>	<p>187</p>

<p><b>Google</b> <b>Translate</b> Translation #2</p>	<p>Tesoro enterrado</p> <p>El hallazgo del <b>arrecife</b> es muy inusual debido a su ubicación profunda, ya que la gran mayoría de los <b>arrecifes</b> de coral conocidos en el mundo solo descienden a unos 25 metros.</p> <p>Los corales con forma de rosa miden hasta dos metros de diámetro y el <b>arrecife en sí</b> tiene entre 30 y 65 metros de ancho.</p> <p>"Este descubrimiento sugiere que hay muchos <b>más</b> arrecifes <b>más</b> grandes, a profundidades de <b>más</b> de 30 metros, en lo que se conoce como la 'zona crepuscular' del océano, que simplemente no conocemos", dijo la <b>UNESCO, el científico de la ONU, organización educativa y cultural.</b></p> <p><b>Al elogiar</b> el "increíble trabajo" de los científicos que sospechaban que podría haber un espectacular arrecife de coral frente a la costa de Tahití, la directora general de la UNESCO, Audrey Azoulay, señaló que solo <b>se ha</b> cartografiado el <b>20 por ciento</b> de todo el lecho marino.</p> <p>"Conocemos la superficie de la luna mejor que las profundidades del océano", dijo.</p> <p>"Este notable descubrimiento en Tahití demuestra el increíble trabajo de los científicos que, con el apoyo de la UNESCO, aumentan el alcance de nuestro conocimiento <b>sobre lo que hay debajo</b>".</p>	<p>192</p>
<p><b>Yandex</b> <b>Translate</b> Translation #2</p>	<p>Tesoro enterrado</p> <p>El hallazgo del <b>arrecife</b> es muy inusual debido a su ubicación profunda, ya que la gran mayoría de los <b>arrecifes</b> de coral conocidos en el mundo solo descienden a unos 25 metros.</p> <p>Los corales en forma de rosa miden hasta dos metros de diámetro y <b>el arrecife en sí</b> tiene entre 30 y 65 metros de ancho.</p> <p>"Este descubrimiento sugiere que hay muchos <b>más</b> arrecifes grandes, a profundidades de <b>más</b> de 30 metros, en lo que se conoce como la 'zona crepuscular' del océano, de la que simplemente no sabemos", dijo la <b>UNESCO, la organización científica, educativa y cultural de la ONU.</b></p> <p>La <b>Directora General</b> de la UNESCO, Audrey Azoulay, elogió el "increíble trabajo" de los científicos que sospechaban que podría haber un espectacular arrecife de coral frente a las costas de Tahití y señaló que solo <b>se ha</b> cartografiado el <b>20 por ciento</b> de todo el lecho marino.</p> <p>"Conocemos la superficie de la Luna mejor que las profundidades del océano", dijo.</p> <p>"Este notable descubrimiento en Tahití demuestra el increíble trabajo de los científicos que, con el apoyo de la UNESCO, amplían el alcance de nuestro conocimiento <b>sobre lo que se encuentra debajo</b>."</p>	<p>195</p>

**Table 34***Holistic Approach for DeepL translation (informative text)*

- Holistic Approach (Translation made by DeepL)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			<input checked="" type="checkbox"/>	
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon			<input checked="" type="checkbox"/>	
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			<input checked="" type="checkbox"/>	

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			<input checked="" type="checkbox"/>	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		<input checked="" type="checkbox"/>		

- Analytical Method (Translation made by DeepL)

**Table 35**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
The reef find is highly unusual because of its deep location, as the vast majority of the world's known coral reefs only descend to around 25 metres. The rose-like corals measure up to two metres in diameter and the reef itself is between 30 metres and 65 metres wide.	Lo extraordinario del hallazgo es su profunda ubicación, ya que la gran mayoría de los arrecifes de coral de los que se tiene constancia en el mundo solo descienden hasta unos 25 metros. Los corales en forma de rosa suelen medir hasta dos metros de diámetro; sin embargo, este arrecife mide entre 30 y 65 metros de ancho.	El <u>hallazgo del arrecife</u> es muy inusual debido a su ubicación profunda, ya que la gran mayoría de los <b>arrecifes</b> de coral conocidos en el mundo sólo descienden hasta unos 25 metros. Los corales en forma de rosa miden hasta dos metros de diámetro y <u>el propio arrecife tiene</u> entre 30 y 65 metros de ancho.

In the same paragraph, the word "arrecife" can be seen twice, which creates a repetition that in Spanish should be avoided by using synonyms. This repetition creates a **Literalness** error, because it is done in the same way as in the original sentence. Also, a **Diacritical Marks / Accents** error was identified with the word "sólo", this is because the correct spelling of "solo" is without tilde and the diacritical mark is only added when the sentence can create ambiguity, however this is not the case in this sentence, so it should be written without it. Finally, there is an error of **Literalness** which in turn creates an error of **Ambiguity**, since at the beginning of the segment in the translation made by Google it is not specified which reef is being referred to, this is how in the part of "el propio arrecife tiene" there is an ambiguity because it is not known which reef is being referred to. The reason for this is that it can be interpreted in two forms: that the reefs in general have these characteristics, or that a single reef has them.

**Table 36***Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
said UNESCO, the UN scientific, educational and cultural organisation.	declaró la Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO).	declaró la <b>UNESCO</b> , la <b>organización científica, educativa y cultural</b> de la ONU.

In this segment an error of **Usage** and **Terminology** can be seen, due to the fact that a different equivalent was used for the breakdown of the abbreviation "UNESCO", which in Spanish has its equivalent recognized as "Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO)".

**Table 37***Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Hailing the "incredible work" of scientists who suspected that there might be a spectacular coral reef off the coast of Tahiti, UNESCO Director General Audrey Azoulay noted that only 20 per cent of the entire seabed has been mapped.	Tras elogiar el "increíble trabajo" de los científicos que sospechaban que podía haber un espectacular arrecife de coral frente a la costa de Tahití, la directora general de la UNESCO, Audrey Azoulay, señaló que tan solo el 20% del fondo marino está cartografiado.	<b>Alabando el</b> "increíble trabajo" de los científicos que sospechaban que podía haber un espectacular arrecife de coral frente a la costa de Tahití, la <b>Directora General</b> de la UNESCO, Audrey Azoulay, señaló que <b>sólo se ha</b> cartografiado el 20% de todo el fondo marino.

A **Literalness** and **Ambiguity** error was committed with the beginning of the sentence as: "Alabando el" since that verb in Spanish would lack a subject or a preposition, as the human translator did, by adding a preposition that indicates that the subject of the action is further on. Not knowing the noun, the sentence can be interpreted in different ways as it can adduce any of the noun already given such as the UN or UNESCO, etc. There is also a **Capitalization** error in the part of "Directora General", since the words that represent a position or an authority in

Spanish are written in lower case, such as "directora general". The word "sólo" creates a **Diacritical Marks / Accents** error, because in Spanish this word goes without diacritical mark, unless there is an ambiguity, which is not the case in this sentence. Finally, a **Verb Form** was identified with the present perfect tense in "se ha", this is because in Latin American Spanish this verb form is not common and the common usage is the present simple.

**Table 38**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
"This remarkable discovery in Tahiti demonstrates the incredible work of scientists who, with the support of UNESCO, further the extent of our knowledge <b>about what lies beneath.</b> "	"Este notable descubrimiento en Tahití demuestra el extraordinario trabajo de los científicos que, con el respaldo de la UNESCO, amplían nuestros conocimientos <b>sobre lo que se esconde en el fondo marino</b> ".	"Este notable descubrimiento en Tahití demuestra el increíble trabajo de los científicos que, con el apoyo de la UNESCO, amplían nuestros conocimientos <b>sobre lo que hay debajo</b> ".

In this segment a **Literalness** error was made, specifically with the word "debajo" in the part of "sobre lo que hay debajo", because from the context the word refers to the seabed and the phrase "sobre lo que hay debajo" can cause misinterpretations by not specifying.

**Table 39**

*Holistic Approach for Google translation (informative text)*

- Holistic Approach (Translation made by Google)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			☑	

1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon			<input checked="" type="checkbox"/>	
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			<input checked="" type="checkbox"/>	

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent		<input checked="" type="checkbox"/>		
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			<input checked="" type="checkbox"/>	

- Analytical Method (Translation made by Google)

**Table 40**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
The reef find is highly unusual because of its deep location, as the vast majority of the world's known coral reefs only descend to around 25 metres. The rose-like corals measure up to two metres in diameter and the reef itself is between	Lo extraordinario del hallazgo es su profunda ubicación, ya que la gran mayoría de los arrecifes de coral de los que se tiene constancia en el mundo solo descienden hasta unos 25 metros. Los corales en forma de rosa suelen medir hasta dos metros de	El <u>hallazgo del arrecife</u> es muy inusual debido a su ubicación profunda, ya que la gran mayoría de los <b>arrecifes</b> de coral conocidos en el mundo solo descienden a unos 25 metros. Los corales con forma de rosa miden hasta dos metros de

30 metres and 65 metres wide.	diámetro; sin embargo, este arrecife mide entre 30 y 65 metros de ancho.	diámetro y <b>el arrecife en sí tiene</b> entre 30 y 65 metros de ancho.
-------------------------------	--	--

A **Literalness** error was identified with the word "arrecife" which is repeated twice in the same paragraph since it was translated keeping the same form of the source sentence, however in Spanish it can not fall into repetition, that is why synonyms or other resources are used to avoid it. Finally, a **Literalness** error can be found which in turn creates an **Ambiguity** error, specifically in the "el arrecife en sí" part. At the beginning of the segment, the automatic translation does not show that it is referring to a specific reef. This creates that the highlighted part, it can be interpreted in two ways: it refers to reefs in general, or it refers to the reef of the article.

**Table 41**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
that there are many more large reefs out there, at depths of more than 30 metres, in what is known as the ocean's 'twilight zone', which we simply do not know about," said UNESCO, the UN scientific, educational and cultural organisation.	existen muchos más arrecifes de gran tamaño, a profundidades superiores a los 30 metros, en lo que se conoce como la "zona crepuscular" del océano, que es desconocida para nosotros", declaró la Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO).	que hay muchos arrecifes <b>más</b> grandes, a profundidades de <b>más</b> de 30 metros, en lo que se conoce como la 'zona crepuscular' del océano, que simplemente no conocemos", dijo la <b>UNESCO, el científico de la ONU, organización educativa y cultural.</b>

A **Grammar** error was made with the word "más", since it was repeated twice in the same paragraph. Repetition in Spanish should be avoided through the use of synonyms or other resources. Finally, with the breakdown of the abbreviation "UNESCO" as "el científico de la ONU, organización educativa y cultural" an error of **Usage** and **Terminology** was made, since only was translated keeping the same words from the source sentence and not used the recognized Spanish equivalent of "UNESCO", which is: "Organización de las Naciones Unidas

para la Educación, la Ciencia y la Cultura (UNESCO)". In addition, the Terminology error also can be seen with the word "científico" which, considering the context, was mistranslated, as the word does not refer to a person but to the field of study.

**Table 42**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
Hailing the "incredible work" of scientists who suspected that there might be a spectacular coral reef off the coast of Tahiti, UNESCO Director General Audrey Azoulay noted that only 20 per cent of the entire seabed has been mapped.	Tras elogiar el "increíble trabajo" de los científicos que sospechaban que podía haber un espectacular arrecife de coral frente a la costa de Tahití, la directora general de la UNESCO, Audrey Azoulay, señaló que tan solo el 20% del fondo marino está cartografiado.	<b>Al elogiar</b> el "increíble trabajo" de los científicos que sospechaban que podría haber un espectacular arrecife de coral frente a la costa de Tahití, la directora general de la UNESCO, Audrey Azoulay, señaló que solo <b>se ha</b> cartografiado el <b>20 por ciento</b> de todo el lecho marino.

The words used at the beginning of the paragraph "Al elogiar" create a **Literalness** and **Ambiguity** error. This happens due to the fact that the subject of the action is not specified, so we do not know who is hailing the "incredible work", nor is any information provided that the subject will be specified thereafter, which creates ambiguity. A **Verb Form** error occurs with the words "se ha" which are in the present perfect tense, a form that is not common for Spanish speakers in Latin America, who have a preference for the present simple to express this tense. Finally, a **Terminology** error occurs with the statement "20 por ciento" because it is not keeping a homogeneity with respect to the figures and letters, if the number is written like this: 20 the best option is to use the percentage symbol (%), since it is not advisable to mix figures and letters.

**Table 43**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
"This remarkable discovery in	"Este notable descubrimiento en	"Este notable descubrimiento en

Tahiti demonstrates the incredible work of scientists who, with the support of UNESCO, further the extent of our knowledge about what lies beneath."	Tahití demuestra el extraordinario trabajo de los científicos que, con el respaldo de la UNESCO, amplían nuestros conocimientos sobre lo que se esconde en el fondo marino".	Tahití demuestra el increíble trabajo de los científicos que, con el apoyo de la UNESCO, aumentan el alcance de nuestro conocimiento <b>sobre lo que hay debajo</b> ".
--	--	--

A **Literalness** error was identified with the word "debajo" since it refers to what exists on the seabed, and by not specifying, this word can be misinterpreted as referring to another object and not to the sea.

**Table 44**

*Holistic Approach for Yandex translation (informative text)*

- Holistic Approach (Translation made by Yandex)

LO1: Be able to produce translation of a general text that shows accurate transfer of information
---

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			☑	
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon			☑	
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			☑	

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			<input checked="" type="checkbox"/>	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			<input checked="" type="checkbox"/>	

- Analytical Method (Translation made by Yandex)

**Table 45**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
The reef find is highly unusual because of its deep location, as the vast majority of the world's known coral reefs only descend to around 25 metres. The rose-like corals measure up to two metres in diameter and the reef itself is between 30 metres and 65 metres wide.	Lo extraordinario del hallazgo es su profunda ubicación, ya que la gran mayoría de los arrecifes de coral de los que se tiene constancia en el mundo solo descienden hasta unos 25 metros. Los corales en forma de rosa suelen medir hasta dos metros de diámetro; sin embargo, este arrecife mide entre 30 y 65 metros de ancho.	El <u>hallazgo del arrecife</u> es muy inusual debido a su ubicación profunda, ya que la gran mayoría de los <b>arrecifes</b> de coral conocidos en el mundo solo descienden a unos 25 metros. Los corales en forma de rosa miden hasta dos metros de diámetro y <b>el arrecife en sí tiene</b> entre 30 y 65 metros de ancho.

The word "arrecife" in the same paragraph is present twice because the same form was kept as in the original sentence, but in Spanish, repetition is something that should be avoided, so

synonyms or other resources are used to help avoid this. In this way, since the same form and repetition of words was maintained, an error of **Literalness** was committed. Finally, at the beginning of the segment in the part of "hallazgo del arrecife" it does not specify which reef is being referred to. This problem continues in the highlighted segment "el arrecife en sí" where it can be seen an error of **Literalness** since it was translated keeping the same form as the source sentence, this in turn creates an error of **Ambiguity**, since the phrase can be interpreted in two ways: it is referring to a specific reef, or it is referring to reefs in general that have these characteristics.

**Table 46**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
that there are many more large reefs out there, at depths of more than 30 metres, in what is known as the ocean's 'twilight zone', which we simply do not know about," said UNESCO, the UN scientific, educational and cultural organisation.	existen muchos más arrecifes de gran tamaño, a profundidades superiores a los 30 metros, en lo que se conoce como la "zona crepuscular" del océano, que es desconocida para nosotros", declaró la Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO).	que hay muchos <b>más</b> arrecifes grandes, a profundidades de <b>más</b> de 30 metros, en lo que se conoce como la 'zona crepuscular' del océano, de la que simplemente no sabemos", dijo la <b>UNESCO, la organización científica, educativa y cultural de la ONU.</b>

The word "más" is present twice in the same paragraph which creates a **Grammar** error, because in Spanish the repetition is something that must be avoided, this by using synonyms or other resources. On the other hand, a **Terminology** and **Usage** error was recognized, due to the fact that the breakdown of the abbreviation UNESCO was not well translated, since the recognized Spanish equivalent for this abbreviation was not used, which is "Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO)".

**Table 47***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
Hailing the "incredible work" of scientists who suspected that there might be a spectacular coral reef off the coast of Tahiti, UNESCO Director General Audrey Azoulay noted that only 20 per cent of the entire seabed has been mapped.	Tras elogiar el "increíble trabajo" de los científicos que sospechaban que podía haber un espectacular arrecife de coral frente a la costa de Tahití, la directora general de la UNESCO, Audrey Azoulay, señaló que tan solo el 20% del fondo marino está cartografiado.	La <b>Directora General</b> de la UNESCO, Audrey Azoulay, elogió el "increíble trabajo" de los científicos que sospechaban que podría haber un espectacular arrecife de coral frente a las costas de Tahití y señaló que solo <b>se ha</b> cartografiado el <b>20 por ciento</b> de todo el lecho marino.

A **Capitalization** error was found in the part of "Directora General", since the positions of a person in a company, institution or organization in Spanish are written in lowercase letters. On the other hand, a **Verb Form** error was made in the "se ha" part, since the present perfect is an uncommon verb form in Spanish. Finally, a **Terminology** error was made with the statement "20 por ciento" because it is not advisable to mix figures and letters, in order to maintain homogeneity in the text. In this way, if the number (20) is used, it is advisable to use the percentage symbol (%) or just write it as "veinte por ciento".

**Table 48***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
"This remarkable discovery in Tahiti demonstrates the incredible work of scientists who, with the support of UNESCO, further the extent of our knowledge about what lies beneath."	"Este notable descubrimiento en Tahití demuestra el extraordinario trabajo de los científicos que, con el respaldo de la UNESCO, amplían nuestros conocimientos sobre lo que se esconde en el fondo marino".	"Este notable descubrimiento en Tahití demuestra el increíble trabajo de los científicos que, con el apoyo de la UNESCO, amplían el alcance de nuestro conocimiento sobre lo que se <b>encuentra debajo.</b> "

The word "debajo" can be misinterpreted, since this word can be assigned to another object instead of the sea. For this reason, it is best to specify that it is the seabed and not just transfer

the equivalents of the words to the target sentence. That is why in this segment an error of **Literalness** was identified.

**Table 49***ATA errors and their frequency (informative texts)*

- Summary

Informative Texts						
Types of error	Google Translate		DeepL		Yandex	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Addition	0	0	0	0	0	0
Ambiguity	3	9.091	3	10.35	2	6.667
Capitalization	1	3.03	2	6.897	3	10
Cohesion	1	3.03	1	3.45	0	0
Diacritical Marks	0	0	2	6.897	0	0
Faithfulness	0	0	1	3.45	0	0
Faux Ami	0	0	0	0	0	0
Grammar	6	18.182	3	10.35	8	26.667
Illegibility	0	0	0	0	0	0
Indecision	0	0	0	0	0	0
Literalness	9	27.273	9	31.03	6	20
Misunderstanding	0	0	1	3.45	0	0
Omission	0	0	0	0	0	0
Punctuation	0	0	0	0	0	0
Register	0	0	0	0	0	0
Spelling	0	0	0	0	0	0
Style	0	0	0	0	0	0
Syntax	1	3.03	0	0	0	0
Terminology	5	15.152	4	13.79	4	13.33
Text Type	0	0	0	0	0	0
Unfinished	0	0	0	0	0	0

Usage	5	15.152	1	3.45	5	16.667
Verb Form	2	6.061	2	6.897	2	6.667
Word Form Part of Speech	0	0	0	0	0	0

For each machine translation (Google, DeepL and Yandex) errors were counted and their mean frequency calculated. Having as a result that in the informative texts, among the 24 types of errors considered for this research and delivered by the ATA. Google between the two texts analyzed committed 9 types of errors, whose order in accordance with their frequency is as follows: **Literalness** (27%), **Grammar** (18%), **Terminology** and **Usage** (15%), **Ambiguity** (9%), **Verb Form** (6%), **Capitalization** (3%), **Cohesion** (3%) and **Syntax** (3%). In this way, Google has a total of 33 errors committed between the two informative texts. For its part, DeepL between the two texts analyzed committed 11 types of errors, being their frequency from highest to lowest as: **Literalness** (31%), **Terminology** (14%), **Grammar** (10%), **Ambiguity** (10%), **Capitalization** (7%), **Verb Form** (7%), **Diacritical Mark** (7%), **Cohesion** (3%), **Faithfulness** (3%), **Usage** (3%) and **Misunderstanding** (3%). In this way, DeepL has a total of 29 errors committed between the two informative texts. Finally, Yandex between the two texts analyzed committed 7 types of errors, whose frequencies are: **Grammar** (27%), **Literalness** (20%), **Usage** (16%), **Terminology** (13%), **Capitalization** (10%), **Ambiguity** (7%) and **Verb Form** (7%). In this way, Yandex has a total of 30 errors committed between the two informative texts. Taking into account the information from the holistic and analytical analysis, it is concluded that in the informative texts the machine translator that had a better performance translating is the Yandex translator, followed by DeepL translator and Google translator. This is because the errors made by Yandex did not affect the understanding of the text significantly, and it can still be understood, so the message is maintained, although with some difficulties due to the errors specified above. However, the three translators had a similar result due to the fact that, the informative texts did not present great difficulty.

## 4.4 Technical Texts

### Text #1

The following text is an instruction manual for an LED light bar, the fragment explains how to install it. The translation was made by the company Showtec.

**Table 50**

*Parallel corpus of "Showtec Edison Bar E6 V1"*

Retrieved from	Corpus <i>Showtec Edison Bar E6 V1</i>	Amount of words
<b>Source Text</b>	<p>Multiple Edisons (DMX Control)</p> <p>01) Fasten the <b>effect light</b> to a <b>firm trussing</b> or mount it on flat surface. Leave at least 0,5 meter <b>on all sides</b> for air circulation.</p> <p>02) Always use a safety cable (ordercode 70140 / 70141).</p> <p>03) Use a <b>3-pin</b> DMX cable to connect the <b>Edison and</b> other devices.</p> <p>04) Link the units as shown in Fig. 05. Connect a <b>light controller</b> to the first unit's DMX "<b>in</b>" socket, using a DMX cable. Connect the first unit's "<b>out</b>" socket with the second unit's "<b>in</b>" socket, using a DMX cable. Repeat this process to <b>link</b> the rest of the units.</p> <p>05) <b>Supply electric power</b>: Plug electric <b>mains power cords</b> into each unit's <b>pro power IN</b> socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is <b>set up and connected</b> properly.</p>	159
<b>Target Text</b> (official translation)	<p>01) Sujete la <b>unidad de efectos de iluminación</b> a un <b>truss</b> firmemente instalado o colóquela en el suelo.</p> <p>Deje como mínimo un espacio de 0,5°m <b>alrededor de la unidad</b> para la circulación del aire.</p> <p>02) Utilice siempre un cable de seguridad (código de pedido 70140/70141).</p> <p>03) Utilice un cable DMX de 3 <b>clavijas</b> para conectar la <b>unidad Edison con</b> otros dispositivos.</p> <p>04) Conecte las unidades entre ellas como se indica en la Fig. 05. Conecte un <b>controlador de iluminación</b> a la toma <b>IN (entrada)</b> DMX del primer dispositivo mediante un cable DMX. Conecte un cable DMX que vaya desde el conector DMX <b>OUT (salida)</b> de la primera unidad al conector DMX <b>IN (entrada)</b> de la segunda unidad. Repita este proceso para <b>interconectar</b> el resto de las unidades.</p>	192

	<p>05) <b>Conecte el suministro de energía eléctrica:</b> Enchufe los cables de alimentación de CA al conector <b>Pro Power</b> de entrada de cada unidad y a continuación conecte el otro extremo del cable de alimentación de CA a un enchufe de suministro eléctrico comenzando por la primera unidad. No suministre la energía hasta que se haya <b>instalado</b> y conectado el sistema completo correctamente.</p>	
<p><b>DeepL</b> Translation #1</p>	<p>Múltiples Edisons (Control DMX)</p> <p>01) Fije la <b>luz de efecto</b> a un truss firme o móntela en una superficie plana. Deje al menos 0,5 metros <b>en todos los lados</b> para la circulación del aire.</p> <p>02) Utilice siempre un cable de seguridad (código de pedido 70140 / 70141).</p> <p>03) Utilice un cable DMX de 3 <b>pines</b> para conectar <b>la Edison</b> y otros dispositivos.</p> <p>04) Conecte las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz a la toma</b> DMX "<b>in</b>" de la primera unidad, utilizando un cable DMX. Conecte la toma "<b>out</b>" de la primera unidad con la toma "<b>in</b>" de la segunda unidad, utilizando un cable DMX. Repita este proceso para <b>conectar</b> el resto de las unidades.</p> <p>05) <b>Suministre energía eléctrica:</b> Enchufe los <b>cables de alimentación de la red eléctrica</b> en la <b>toma de entrada profesional</b> de cada unidad y, a continuación, enchufe el otro extremo del cable de alimentación en las tomas de corriente eléctrica adecuadas, empezando por la primera unidad. No suministre energía antes de que todo el sistema esté <b>configurado</b> y conectado correctamente.</p>	<b><u>180</u></b>
<p><b>Google</b> <b>Translate</b> Translation #1</p>	<p>Múltiples Edison (Control DMX)</p> <p>01) Fije la <b>luz de efecto</b> a una <b>estructura firme</b> o móntela sobre una superficie plana. Deje al menos 0,5 metros <b>en todos los lados</b> para la circulación del aire.</p> <p>02) Utilice siempre un cable de seguridad (código de pedido 70140 / 70141).</p> <p>03) Use un cable DMX de 3 <b>pines</b> para conectar <b>el Edison</b> y otros dispositivos.</p> <p>04) Conecte las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz</b> a la toma DMX "<b>in</b>" de la primera unidad, usando un cable DMX. Conecte el enchufe de "<b>salida</b>" de la primera unidad con el enchufe de "<b>entrada</b>" de la segunda unidad mediante un cable DMX. Repita este proceso para <b>vincular</b> el resto de las unidades.</p> <p>05) <b>Suministro de energía eléctrica:</b> enchufe los cables de <b>alimentación de la red eléctrica</b> en el enchufe <b>PRO power IN</b> de cada unidad, luego conecte el otro extremo del cable de alimentación a las tomas de corriente adecuadas, empezando por la primera unidad. No suministre energía antes de que todo el sistema esté <b>configurado</b> y conectado correctamente.</p>	<b><u>179</u></b>
<p><b>Yandex</b></p>	<p>Múltiples Ediciones (Control DMX)</p>	<b><u>179</u></b>

<p><b>Translate</b></p> <p>Translation</p> <p>#1</p>	<p>01) Fije la <b>luz de efecto</b> a una <b>armadura firme</b> o móntela en una superficie plana. Deje al menos 0,5 metros en <b>todas las laterales</b> para la circulación del aire.</p> <p>02) Utilice siempre un cable de seguridad (código de pedido 70140/70141).</p> <p>03) Utilice un cable DMX de 3 <b>pines</b> para conectar <b>el Edison</b> y otros dispositivos.</p> <p>04) Enlazar las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz</b> a la toma DMX "<b>in</b>" de la primera unidad, utilizando un cable DMX. Conecte la toma "<b>out</b>" de la primera unidad con la toma "<b>in</b>" de la segunda unidad, utilizando un cable DMX. Repita este proceso para <b>vincular</b> el resto de las unidades.</p> <p>05) <b>Suministro de energía eléctrica:</b> Enchufe los <b>cables de alimentación de la red eléctrica</b> en el enchufe <b>pro power IN</b> de cada unidad, luego enchufe el otro extremo del cable de alimentación en las tomas de corriente adecuadas, comenzando con la primera unidad. No suministre energía antes de que todo el sistema esté <b>configurado</b> y conectado correctamente.</p>	
--	--	--

**Table 51**

*Holistic Approach for DeepL translation (Technical text)*

- Holistic Approach (Translation made by DeepL)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			<input checked="" type="checkbox"/>	

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			☑	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			☑	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			☑	

- Analytical Method (Translation made by DeepL)

**Table 52**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Fasten the <b>effect light</b> to a <b>firm trussing</b> or mount it on flat surface.	Sujete la <b>unidad de efectos de iluminación</b> a un <b>truss</b> firmemente instalado o colóquela en el suelo.	Fije la <b>luz de efecto</b> a un truss firme o móntela en una superficie plana.

In this segment, the automatic translator made the **Terminology** and **Text Type** errors, where the official translator uses the correct term using **Equivalence**.

**Table 53**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Leave at least 0,5 meter <b>on all sides</b> for air circulation.	Deje como mínimo un espacio de 0,5°m <b>alrededor de la unidad</b> para la circulación del aire.	Deje al menos 0,5 metros en <b>todos los lados</b> para la circulación del aire.

In this segment the machine translator makes the errors of **Literalness**, **Faithfulness**,

**Misunderstanding** and **Ambiguity**, the human translator does a better job of understanding the context of this sentence, that it is talking about the object, while the machine translator implies that a larger space should be left than is actually necessary.

**Table 54**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Use a <b>3-pin</b> DMX cable to connect the <b>Edison and</b> other devices.	Utilice un cable DMX de 3 <b>clavijas</b> para conectar la <b>unidad Edison con</b> otros dispositivos.	Utilice un cable DMX de 3 <b>pinos</b> para conectar <b>la Edison y</b> otros dispositivos.

The difference between both translators is that the human translator is able to use **Equivalence** and **Generalization** to solve the problem of **Terminology** and **Ambiguity**, while the automatic translator makes the mistake of **Literalness**, although the term "pinos" used by the automatic translator is not incorrect, in this case it would be ideal to use a more general term such as "clavija" which can be better understood in the Spanish language, since when translating technical terms it is vital for the reader to be familiar with the terminology of the manual.

**Table 55**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Connect a <b>light controller</b> to the first unit's DMX " <b>in</b> " socket, using a DMX cable. Connect the first unit's " <b>out</b> " socket with the second unit's " <b>in</b> " socket, using a DMX cable. Repeat this process to <b>link</b> the rest of the units.	Conecte un <b>controlador de iluminación</b> a la toma <b>IN (entrada)</b> DMX del primer dispositivo mediante un cable DMX. Conecte un cable DMX que vaya desde el conector DMX <b>OUT (salida)</b> de la primera unidad al conector DMX <b>IN (entrada)</b> de la segunda unidad. Repita este proceso para <b>interconectar</b> el resto de las unidades.	Conecte un <b>controlador de luz a la toma</b> DMX " <b>in</b> " de la primera unidad, utilizando un cable DMX. Conecte la toma " <b>out</b> " de la primera unidad con la toma " <b>in</b> " de la segunda unidad, utilizando un cable DMX. Repita este proceso para <b>conectar</b> el resto de las unidades.

In this segment the human translator is able to deliver much clearer instructions due to the use of **Explicitness**, where the meaning of "in" and "out" is put in brackets, the automatic translator does not perform this technique, which can be considered a **Literalness** error since the manual is addressed to a Spanish-speaking audience, where any misunderstanding can mean a misuse or misinstallation of the device.

An **Ambiguity** error can also be found in the word "link" where the human translator uses the term "interconectar" to make it clear that the device must be connected to the other devices, however DeepL translation may even imply that the method of connection of this device is the same as for the others, which, again, may mean a misuse or installation of the device.

**Table 56**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
<p><b>Supply electric power:</b> Plug electric <b>mains power cords</b> into each unit's <b>pro power IN</b> socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is <b>set up and connected</b> properly.</p>	<p><b>Conecte el suministro de energía eléctrica:</b> Enchufe los cables de alimentación de CA al conector <b>Pro Power</b> de entrada de cada unidad y a continuación conecte el otro extremo del cable de alimentación de CA a un enchufe de suministro eléctrico comenzando por la primera unidad. No suministre la energía hasta que se haya <b>instalado</b> y conectado el sistema completo correctamente.</p>	<p><b>Suministre energía eléctrica:</b> Enchufe los <b>cables de alimentación de la red eléctrica</b> en la <b>toma de entrada profesional</b> de cada unidad y, a continuación, enchufe el otro extremo del cable de alimentación en las tomas de corriente eléctrica adecuadas, empezando por la primera unidad. No suministre energía antes de que todo el sistema esté <b>configurado</b> y conectado correctamente.</p>

In the phrase "supply electric power" the automatic translator commits the errors of **Literalness** and **Ambiguity**, since it translates the instruction word by word and this can result in an erroneous instruction, since by saying "suministre energia electrica" it can be understood that electric power must be supplied from an own supply, while the human translator uses the words "conecte el suministro de energía eléctrica" to imply that the supply indicated by the manual must be used.

For the term "mains power cords" the human translator uses **Explicitness** and **Equivalence**, while the machine translator makes the errors of **Literalness** and **Terminology**.

Finally, "set up and connected" was translated as "instalado" in the official translation, which makes quite clear the instruction not to supply power until the device is installed, however, DeepL translated it as "configurado" which results in the errors of **Ambiguity**, **Faithfulness** and **Misunderstanding**, since the word "configured" is used for a process where the device is already connected, thus performing the task with the device running, however this is not what is said in the original text.

**Table 57**

*Holistic Approach for Google translation (Technical text)*

- Holistic Approach (Translation made by Google)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			<input checked="" type="checkbox"/>	

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			☑	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			☑	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			☑	

- Analytical Method (Translation made by Google)

**Table 58**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
Fasten the <b>effect light</b> to a <b>firm trussing</b> or mount it on flat surface.	Sujete la <b>unidad de efectos de iluminación</b> a un <b>truss</b> firmemente instalado o colóquela en el suelo.	Fije la <b>luz de efecto</b> a una <b>estructura firme</b> o móntela sobre una superficie plana.

In this segment, the machine translator commits the errors of **Terminology** and **Text Type**, in the case of the first term.

In the second term, the **Terminology**, **Text Type** and **Faithfulness** errors are made, the latter error can be especially serious since it not only fails to deliver the instruction, but also gives an instruction that was not in the source text, the human translator uses **Equivalence** to solve this.

**Table 59***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
Leave at least 0,5 meter <b>on all sides</b> for air circulation.	Deje como mínimo un espacio de 0,5°m <b>alrededor de la unidad</b> para la circulación del aire.	Deje al menos 0,5 metros en <b>todos lados</b> para la circulación del aire.

In this segment the machine translator makes the **Literalness, Misunderstanding and Ambiguity** errors, this is because the human translator makes it clear that space should be left around the unit, but the machine translator translated it as "en todos lados", which is the wrong instruction.

**Table 60***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
Use a <b>3-pin</b> DMX cable to connect the <b>Edison and</b> other devices.	Utilice un cable DMX de 3 <b>clavijas</b> para conectar la <b>unidad Edison</b> con otros dispositivos.	Use un cable DMX de 3 <b>pinos</b> para conectar <b>el Edison</b> y otros dispositivos.

The machine translator uses the term "pines", making the errors of **Literalness** and **Omission**, which while not wrong, the human translator does a better job using the **Equivalence** and **Generalization** techniques to translate this term to resolve **Terminology** and **Ambiguity** errors.

The **Generalization** technique is especially important since it is necessary for the majority of the target audience to be able to understand the instructions.

**Table 61***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
Connect a <b>light controller</b> to the first unit's DMX <b>"in"</b> socket, using a DMX cable. Connect the first unit's <b>"out"</b>	Conecte un <b>controlador de iluminación</b> a la toma <b>IN (entrada)</b> DMX del primer dispositivo mediante un cable	Conecte un <b>controlador de luz</b> a la toma DMX <b>"in"</b> de la primera unidad, usando un cable DMX. Conecte el enchufe de <b>"salida"</b>

<p>socket with the second unit's <b>"in"</b> socket, using a DMX cable. Repeat this process to <b>link</b> the rest of the units.</p>	<p>DMX. Conecte un cable DMX que vaya desde el conector DMX <b>OUT (salida)</b> de la primera unidad al conector DMX <b>IN (entrada)</b> de la segunda unidad. Repita este proceso para <b>interconectar</b> el resto de las unidades.</p>	<p>de la primera unidad con el enchufe de <b>"entrada"</b> de la segunda unidad mediante un cable DMX. Repita este proceso para vincular el resto de las unidades.</p>
---	--	--

In this segment the human translator uses the technique of **Explicitation** and **Adaptation** to make clear the meaning of "in" and "out", however the machine translator leaves the first term "in" as is, while translating and omitting the next words in quotation marks, thus generating the errors of **Omission, Terminology, Faithfulness, Misunderstanding** and **Indecision**.

While the human translator was able to perform a good translation thanks to the use of **Explicitation**, the machine translator was not able to take the decision to put the words in quotation marks or leave them as they are, resulting in a mixture of both techniques that results in a text that can bring a problem of **Ambiguity**, since for a person who has no knowledge of English the term "in" can be confused with other than "entrada".

**Table 62**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
<p><b>Supply electric power:</b> Plug electric <b>mains power cords</b> into each unit's <b>pro power IN</b> socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is <b>set up and connected</b> properly.</p>	<p><b>Conecte el suministro de energía eléctrica:</b> Enchufe los cables de alimentación de CA al conector <b>Pro Power</b> de entrada de cada unidad y a continuación conecte el otro extremo del cable de alimentación de CA a un enchufe de suministro eléctrico comenzando por la primera unidad. No suministre la energía hasta que se haya <b>instalado</b> y</p>	<p><b>Suministro de energía eléctrica:</b> enchufe los cables de <b>alimentación de la red eléctrica</b> en el enchufe <b>PRO power IN</b> de cada unidad, luego conecte el otro extremo del cable de alimentación a las tomas de corriente adecuadas, empezando por la primera unidad. No suministre energía antes de que todo el sistema esté <b>configurado</b> y conectado correctamente.</p>

	conectado el sistema completo correctamente.	
--	--	--

The machine translator commits the errors of **Omission** and **Literalness** by not translating or using quotation marks to make clear the meaning of "in".

It commits the errors of **Ambiguity**, **Faithfulness** and **Misunderstanding** in the word "configurado" as this suggests performing the procedure on the device already connected, however that is not the instruction in the original text, the human translator performs a better translation by taking into account the context.

**Table 63**

*Holistic Approach for Yandex translation (Technical text)*

- Holistic Approach (Translation made by Yandex)

LO1: Be able to produce translation of a general text that shows accurate transfer of information
---

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			☑	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			☑	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			☑	

- Analytical Method (Translation made by Yandex)

**Table 64**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
Fasten the <b>effect light</b> to a <b>firm trussing</b> or mount it on flat surface.	Sujete la <b>unidad de efectos de iluminación</b> a un <b>truss</b> firmemente instalado o colóquela en el suelo.	Fije la <b>luz de efecto</b> a una <b>armadura firme</b> o móntela en una superficie plana.

The machine translator makes a **Terminology** error with the term "effect light", the human translator solves this with the **Equivalence** technique.

With the phrase "firm trussing" the machine translator makes **Terminology, Faithfulness** and **Text Type** errors by using an incorrect term that can affect the understanding and following of instructions, the human translator can solve all these problems with **Equivalence**.

**Table 65***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
Leave at least 0,5 meter <b>on all sides</b> for air circulation.	Deje como mínimo un espacio de 0,5°m <b>alrededor de la unidad</b> para la circulación del aire.	Deje al menos 0,5 metros en <b>todas las laterales</b> para la circulación del aire.

The machine translator commits the errors of **Literalness**, **Ambiguity**, **Misunderstanding**, in addition to committing a **Grammar** error in the phrase "en todas las laterales". The human translator solves this problem by taking into account the context.

**Table 66***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
Use a <b>3-pin</b> DMX cable to connect the <b>Edison and</b> other devices.	Utilice un cable DMX de 3 <b>clavijas</b> para conectar la <b>unidad Edison</b> con otros dispositivos.	Utilice un cable DMX de 3 <b>pinos</b> para conectar <b>el Edison</b> y otros dispositivos.

The machine translator uses the term "pines", making the errors of **Literalness** and **Omission**, which while not wrong, the human translator does a better job using the **Equivalence** and **Generalization** techniques to translate this term to resolve **Terminology** and **Ambiguity** errors.

The **Generalization** technique is especially important since it is necessary for the majority of the target audience to be able to understand the instructions.

**Table 67***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
Connect a <b>light controller</b> to the first unit's DMX " <b>in</b> " socket, using a DMX cable. Connect the first unit's " <b>out</b> " socket with the second unit's	Conecte un <b>controlador de iluminación</b> a la toma <b>IN (entrada)</b> DMX del primer dispositivo mediante un cable DMX. Conecte un cable DMX	Conecte un <b>controlador de luz</b> a la toma DMX " <b>in</b> " de la primera unidad, utilizando un cable DMX. Conecte la toma " <b>out</b> " de la primera unidad con la toma

<p>"in" socket, using a DMX cable. Repeat this process to <b>link</b> the rest of the units.</p>	<p>que vaya desde el conector DMX <b>OUT (salida)</b> de la primera unidad al conector DMX <b>IN (entrada)</b> de la segunda unidad. Repita este proceso para <b>interconectar</b> el resto de las unidades.</p>	<p>"in" de la segunda unidad, utilizando un cable DMX. Repita este proceso para <b>vincular</b> el resto de las unidades.</p>
--	--	---

The human translator does a better translation thanks to a better understanding of the context and the use of techniques such as **Explicitness** and **Adaptation**, while the machine translator makes the mistake of **Omission**, and **Faithfulness** to a certain extent, since the message was not delivered in the best possible way.

**Table 68**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
<p><b>Supply electric power:</b> Plug electric <b>mains power cords</b> into each unit's <b>pro power IN</b> socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is <b>set up and connected</b> properly.</p>	<p><b>Conecte el suministro de energía eléctrica:</b> Enchufe los cables de alimentación de CA al conector <b>Pro Power</b> de entrada de cada unidad y a continuación conecte el otro extremo del cable de alimentación de CA a un enchufe de suministro eléctrico comenzando por la primera unidad. No suministre la energía hasta que se haya <b>instalado</b> y conectado el sistema completo correctamente.</p>	<p><b>Suministro de energía eléctrica:</b> Enchufe los <b>cables de alimentación de la red eléctrica</b> en el enchufe <b>pro power IN</b> de cada unidad, luego enchufe el otro extremo del cable de alimentación en las tomas de corriente adecuadas, comenzando con la primera unidad. No suministre energía antes de que todo el sistema esté <b>configurado</b> y conectado correctamente.</p>

The machine translator commits the errors of **Omission** and **Literalness** by not translating or using quotation marks to make clear the meaning of "in".

It commits the errors of **Ambiguity**, **Faithfulness** and **Misunderstanding** in the word "configurado" as this suggests performing the procedure on the device already connected,

however that is not the instruction in the original text, the human translator performs a better translation by taking into account the context.

## Text #2

The following text is from an instruction manual for a general purpose laboratory mixer, the translation was made by the company Labnet. The following fragment indicates some precautions when using the mixer.

**Table 69**

*Parallel corpus of “Vortex Mixer User Manual S0200”*

Retrieved from	Corpus <i>Vortex Mixer User Manual S0200</i> (Labnet)	Amount of words
<b>Source Text</b>	<p>Safety Precautions</p> <p>The following precautions should be taken when operating or working near the <b>Vortex Mixer</b>:</p> <ul style="list-style-type: none"><li>• CAUTION; A <b>PINCH POINT</b> EXISTS BETWEEN <b>CUP HEAD</b> AND <b>ENCLOSURE</b>.</li><li>• Never operate the unit without a <b>shaking head</b> securely attached.</li><li>• Always wear <b>shatterproof eye protection</b>.</li><li>• Do not use or <b>mix solvents and flammables on or near the mixer</b>.</li><li>• Shake hazardous samples in <b>appropriate containment vessels</b>.</li><li>• Repair should be performed only by qualified individuals</li><li>• <b>Protection impairment</b> may result if used in a manner not specified by the manufacturer.</li></ul> <p>Optional Accessories</p> <p>Instruction for using accessories:</p> <ol style="list-style-type: none"><li>1 – <b>Turn power off</b> and <b>rotate speed knob</b> to minimum</li><li>2 – Hold the unit down and lift the <b>mixing head</b></li><li>3 – Apply the desired optional accessory and load it in a balanced manner</li><li>4 – Turn on the unit</li><li>5 – Slowly rotate the <b>speed knob</b> clockwise until the desired <b>mixing level</b> is achieved</li></ol>	141
<b>Target Text</b> (official translation)	<p>Precauciones de seguridad</p> <p>Se deben observar las siguientes precauciones cuando se utilice o se trabaje cerca del <b>agitador Vortex</b>:</p> <ul style="list-style-type: none"><li>• PRECAUCIÓN; EXISTE UN <b>PUNTO DE FIJACIÓN</b> ENTRE EL <b>CABEZAL DE COPA Y EL CIERRE</b>.</li></ul>	155

	<ul style="list-style-type: none"> <li>• No ponga nunca la unidad en funcionamiento si no está firmemente fijado el <b>cabezal de agitado</b>.</li> <li>• Póngase siempre <b>protección ocular irrompible</b>.</li> <li>• No utilice o mezcle <b>disolventes inflamables</b> en o cerca del <b>agitador</b>.</li> <li>• Agite las muestras peligrosas en <b>contenedores de retención</b> apropiados.</li> <li>• Las reparaciones las debe llevar a cabo personal cualificado.</li> <li>• Se puede provocar <b>deterioro</b> de la protección si se utiliza de una forma no especificada por el fabricante.</li> </ul> <p>Accesorios opcionales</p> <p>Instrucciones para la utilización de los accesorios:</p> <ol style="list-style-type: none"> <li>1 – <b>Apague la unidad</b> y gire la <b>perilla de velocidad</b> a mínimo.</li> <li>2 – <b>Haga presión sobre la unidad</b> y levante el <b>cabezal de agitación</b>.</li> <li>3 – Aplique el accesorio opcional deseado y cárguelo de manera equilibrada.</li> <li>4 – Encienda la unidad.</li> <li>5 – Gire lentamente la <b>perilla de velocidad</b> en el sentido de las agujas del reloj hasta que se alcance el <b>nivel de agitación</b> que se desea.</li> </ol>	
<p><b>DeepL</b> Translation #2</p>	<p>Precauciones de seguridad</p> <p>Deben tomarse las siguientes precauciones cuando se opere o trabaje cerca del <b>mezclador de vórtice</b>:</p> <ul style="list-style-type: none"> <li>- PRECAUCIÓN; EXISTE UN PUNTO DE <b>PELLIZCO</b> ENTRE EL <b>CABEZAL DEL VASO Y LA CARCASA</b>.</li> <li>- No opere nunca la unidad sin un <b>cabezal de agitación</b> bien colocado.</li> <li>- Lleve siempre <b>protección ocular inastillable</b>.</li> <li>- No utilice ni mezcle disolventes e inflamables en el mezclador o cerca de él.</li> <li>- Agite las muestras peligrosas en <b>recipientes de contención</b> adecuados.</li> <li>- Las reparaciones deben ser realizadas únicamente por personas cualificadas</li> <li>- Pueden producirse <b>daños</b> en la protección si se utiliza de forma no especificada por el fabricante.</li> </ul> <p>Accesorios opcionales</p> <p>Instrucciones para el uso de los accesorios:</p> <ol style="list-style-type: none"> <li>1 - <b>Desconecte la alimentación</b> y gire la perilla de velocidad al mínimo</li> <li>2 - <b>Sostenga la unidad hacia abajo</b> y levante el <b>cabezal mezclador</b></li> <li>3 - Aplique el accesorio opcional deseado y cárguelo de forma equilibrada</li> <li>4 - Encienda la unidad</li> <li>5 - Gire lentamente el <b>botón de velocidad</b> en el sentido de las agujas del reloj hasta alcanzar el <b>nivel de mezcla</b> deseado</li> </ol>	<p><b><u>163</u></b></p>

<p><b>Google Translate</b> Translation #2</p>	<p>Precauciones de seguridad</p> <p>Se deben tomar las siguientes precauciones al operar o trabajar cerca del <b>mezclador Vortex</b>:</p> <ul style="list-style-type: none"> <li>• PRECAUCIÓN; EXISTE UN PUNTO DE <b>APRIETE</b> ENTRE LA <b>CABEZA DE LA COPA Y LA CAJA</b>.</li> <li>• Nunca opere la unidad sin un <b>cabezal sacudidor</b> conectado de manera segura.</li> <li>• Utilice siempre <b>protección para los ojos inastillable</b>.</li> <li>• No use ni mezcle solventes e inflamables en o cerca del mezclador.</li> <li>• Agite las muestras peligrosas en <b>recipientes de contención</b> apropiados.</li> <li>• La reparación debe ser realizada únicamente por personas calificadas</li> <li>• Puede resultar en deterioro de la protección si se usa de una manera no especificada por el fabricante.</li> </ul> <p>Accesorios Opcionales</p> <p>Instrucciones para el uso de accesorios:</p> <ol style="list-style-type: none"> <li>1 – <b>Apague</b> y gire la perilla de velocidad al mínimo</li> <li>2 – <b>Mantenga presionada la unidad</b> y levante el <b>cabezal mezclador</b></li> <li>3 – Aplicar el accesorio opcional deseado y cargarlo de forma equilibrada</li> <li>4 – Encienda la unidad</li> <li>5 – Gire lentamente la perilla de velocidad en el sentido de las agujas del reloj hasta lograr el <b>nivel de mezcla</b> deseado</li> </ol>	<p><b><u>164</u></b></p>
<p><b>Yandex Translate</b> Translation #2</p>	<p>Precauciones de Seguridad</p> <p>Se deben tomar las siguientes precauciones al operar o trabajar cerca del <b>Mezclador de vórtice</b>:</p> <ul style="list-style-type: none"> <li>* PRECAUCIÓN; EXISTE UN PUNTO DE <b>PELLIZCO</b> ENTRE LA <b>CABEZA DE LA TAZA Y LA CARCASA</b>.</li> <li>* Nunca opere la unidad sin un <b>cabezal agitador</b> bien sujeto.</li> <li>* Siempre use <b>protección ocular inastillable</b>.</li> <li>• * No use ni mezcle solventes e inflamables sobre o cerca de la mezcladora.</li> <li>* Agite las muestras peligrosas en <b>recipientes de contención</b> apropiados.</li> <li>* La reparación debe ser realizada solo por personas calificadas</li> <li>* El deterioro de la protección puede resultar si se usa de una manera no especificada por el fabricante.</li> </ul> <p>Accesorios Opcionales</p> <p>Instrucciones de uso de accesorios:</p> <ol style="list-style-type: none"> <li>1-<b>Apague la alimentación</b> y gire la perilla de velocidad al mínimo</li> <li>2-<b>Sostenga la unidad hacia abajo</b> y levante el <b>cabezal mezclador</b></li> <li>3-Aplique el accesorio opcional deseado y cárguelo de manera equilibrada</li> </ol>	<p><b><u>164</u></b></p>

	4-Encienda la unidad 5-Gire lentamente el <b>mando de velocidad</b> en el sentido de las agujas del reloj hasta alcanzar el nivel de <b>mezcla deseado</b>	
--	---	--

**Table 70**

*Holistic Approach for DeepL translation (Technical text)*

- Holistic Approach (Translation made by DeepL)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			<input checked="" type="checkbox"/>	
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			<input checked="" type="checkbox"/>	

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			<input checked="" type="checkbox"/>	

2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			<input checked="" type="checkbox"/>	
--	--	--	-------------------------------------	--

- Analytical Method (Translation made by DeepL)

**Table 71**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
The following precautions should be taken when operating or working near the <b>Vortex Mixer:</b>	Se deben observar las siguientes precauciones cuando se utilice o se trabaje cerca del <b>agitador Vortex:</b>	Deben tomarse las siguientes precauciones cuando se opere o trabaje cerca del <b>mezclador de vórtice:</b>

In this segment the **Terminology** and **Text Type** errors are made, it should be noted that these errors are especially serious when translating a technical text. The human translator solves the problem using **Equivalence**.

**Table 72**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
CAUTION; A <b>PINCH POINT</b> EXISTS BETWEEN <b>CUP HEAD</b> AND <b>ENCLOSURE.</b>	PRECAUCIÓN; EXISTE UN <b>PUNTO DE FIJACIÓN</b> ENTRE EL <b>CABEZAL DE COPA</b> Y EL <b>CIERRE.</b>	PRECAUCIÓN; EXISTE UN <b>PUNTO DE PELLIZCO</b> ENTRE EL <b>CABEZAL DEL VASO</b> Y LA <b>CARCASA.</b>

The errors of **Terminology**, **Faithfulness**, **Literalness** and **Text Type** are made by the machine translator, since the message delivered in the machine translation is not able to use the right terminology, so it ends up translating word for word. The human translator solves these problems by using the correct terminology, using **Equivalence**.

**Table 73***Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Never operate the unit without a <b>shaking head</b> securely attached.	No ponga nunca la unidad en funcionamiento si no está firmemente fijado el <b>cabezal de agitado</b> .	No opere nunca la unidad sin un <b>cabezal de agitación</b> bien colocado.

The machine translator makes **Terminology** and **Text Type** errors, which in this case is not a serious error for the common eye, but it could be for an expert in the field.

**Table 74***Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
<b>Turn power off</b> and rotate <b>speed knob</b> to minimum	<b>Apague la unidad</b> y gire la <b>perilla de velocidad</b> a mínimo.	<b>Desconecte la alimentación</b> y gire la perilla de velocidad al mínimo

The phrase "Turn power off" was translated as "Desconecte la alimentacion" by the machine translator, which is a clear error of **Faithfulness** and **Misunderstanding**, since it can be implied that the device should be disconnected from the electrical power, however the original instruction only gives the indication to turn it off.

**Table 75***Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Hold the unit down and lift the <b>mixing head</b>	<b>Haga presión sobre la unidad</b> y levante el <b>cabezal de agitación</b> .	<b>Sostenga la unidad hacia abajo</b> y levante el <b>cabezal mezclador</b>

In this segment the machine translator commits the errors of **Terminology** and **Text Type**, by the use of an incorrect term in the case of "mixing head", and the errors of **Literalness**, **Ambiguity**, **Faithfulness** and **Misunderstanding** in the instruction "hold the unit down", the human translator makes clear that you should simply exert pressure on the unit, however the

automatic translator translated it in such a way that it can be understood that the unit should be tilted.

**Table 76**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Slowly rotate the <b>speed knob</b> clockwise until the desired <b>mixing level</b> is achieved	Gire lentamente la <b>perilla de velocidad</b> en el sentido de las agujas del reloj hasta que se alcance el <b>nivel de agitación</b> que se desea.	Gire lentamente el <b>botón de velocidad</b> en el sentido de las agujas del reloj hasta alcanzar el <b>nivel de mezcla</b> deseado

A minor error is made in the case of the translation "speed knob", where an incorrect word is used.

In the term "mixing level" the automatic translator commits the errors of **Terminology, Text Type, Misunderstanding** and **Faithfulness**, since the translation "mixing level" may imply that we are waiting for a completely different process than the one in the original instruction, which would be "nivel de agitación."

**Table 77**

*Holistic Approach for Google translation (Technical text)*

- Holistic Approach (Translation made by Google)

LO1: Be able to produce translation of a general text that shows accurate transfer of information
---

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			☑	
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		☑		

1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			<input checked="" type="checkbox"/>	
---	--	--	-------------------------------------	--

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			<input checked="" type="checkbox"/>	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			<input checked="" type="checkbox"/>	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			<input checked="" type="checkbox"/>	

- Analytical Method (Translation made by Google)

**Table 78**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
The following precautions should be taken when operating or working near the <b>Vortex Mixer:</b>	Se deben observar las siguientes precauciones cuando se utilice o se trabaje cerca del <b>agitador Vortex:</b>	Se deben tomar las siguientes precauciones al operar o trabajar cerca del <b>mezclador Vortex:</b>

The machine translator makes the error of **Terminology**, **Text Type** and **Literalness**, the human translator makes a correct translation thanks to context and **Equivalence**.

**Table 79***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
CAUTION; A <b>PINCH POINT</b> EXISTS BETWEEN <b>CUP HEAD</b> AND <b>ENCLOSURE</b> .	PRECAUCIÓN; EXISTE UN <b>PUNTO DE FIJACIÓN</b> ENTRE EL <b>CABEZAL DE COPA Y EL CIERRE</b> .	PRECAUCIÓN; EXISTE UN <b>PUNTO DE APRIETE</b> ENTRE <b>LA CABEZA DE LA COPA Y LA CAJA</b> .

The machine translator makes **Terminology**, **Faithfulness**, **Text Type** and **Literalness** errors, the human translator uses the **Equivalence** technique.

**Table 80***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
Never operate the unit without a <b>shaking head</b> securely attached.	No ponga nunca la unidad en funcionamiento si no está firmemente fijado el <b>cabezal de agitado</b> .	Nunca opere la unidad sin un <b>cabezal sacudidor</b> conectado de manera segura.

The machine translator makes the **Terminology** and **Text Type** errors, the human translator knows the correct term through **Equivalence**.

**Table 81***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
<b>Turn power off</b> and rotate speed knob to minimum	<b>Apague la unidad</b> y gire la perilla de velocidad a mínimo.	<b>Apague</b> y gire la perilla de velocidad al mínimo

The machine translator commits the **Omission** error, which, although not serious, may affect the quality of the instruction and could be considered a **Faithfulness** error.

**Table 82***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
Hold the unit down and lift the <b>mixing head</b>	<b>Haga presión sobre la unidad</b> y levante el <b>cabezal de agitación.</b>	<b>Mantenga presionada la unidad</b> y levante el <b>cabezal mezclador</b>

The translation "mantenga presionada la unidad" made by the machine translator can generate the errors of **Faithfulness**, **Misunderstanding**, **Ambiguity** and **Literalness**, since it could imply an erroneous instruction, the human translator understands the context and can make a better translation.

Then the **Terminology** and **Text Type** errors are made, which the human translator solves thanks to **Equivalence**.

**Table 83***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translation
Slowly rotate the <b>speed knob</b> clockwise until the desired <b>mixing level</b> is achieved	Gire lentamente la <b>perilla de velocidad</b> en el sentido de las agujas del reloj hasta que se alcance el <b>nivel de agitación</b> que se desea.	Gire lentamente la perilla de velocidad en el sentido de las agujas del reloj hasta lograr el <b>nivel de mezcla</b> deseado

The automatic translator commits the errors of **Terminology**, **Faithfulness**, **Text Type** and **Misunderstanding**, since the translation "mixing level" can be understood as a process that is not mentioned in the original instruction.

**Table 84***Holistic Approach for Yandex translation (Technical text)*

- Holistic Approach (Translation made by Yandex)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language			<input checked="" type="checkbox"/>	

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			<input checked="" type="checkbox"/>	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			<input checked="" type="checkbox"/>	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			<input checked="" type="checkbox"/>	

- Analytical Method (Translation made by Yandex)

**Table 85**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
The following precautions should be taken when operating or working near the <b>Vortex Mixer:</b>	Se deben observar las siguientes precauciones cuando se utilice o se trabaje cerca del <b>agitador Vortex:</b>	Se deben tomar las siguientes precauciones al operar o trabajar cerca del <b>Mezclador de vórtice:</b>

Yandex makes the errors of **Terminology, Faithfulness, Literalness** and **Text Type**, the human translator uses the right term.

**Table 86**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
CAUTION; A <b>PINCH POINT</b> EXISTS BETWEEN <b>CUP HEAD</b> AND <b>ENCLOSURE.</b>	PRECAUCIÓN; EXISTE UN <b>PUNTO DE FIJACIÓN</b> ENTRE EL <b>CABEZAL DE COPA</b> Y EL <b>CIERRE.</b>	PRECAUCIÓN; EXISTE UN <b>PUNTO DE PELLIZCO</b> ENTRE LA <b>CABEZA DE LA TAZA</b> Y LA <b>CARCASA.</b>

The machine translator commits the errors of **Terminology, Faithfulness, Literalness** and **Text Type**, it does not use the right terms which makes it difficult to follow the instructions. In this case, the human translator handles more context and can perform quality translations thanks to techniques such as **Equivalence**.

**Table 87**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
Never operate the unit without a <b>shaking head</b> securely attached.	No ponga nunca la unidad en funcionamiento si no está firmemente fijado el <b>cabezal de agitado.</b>	Nunca opere la unidad sin un <b>cabezal agitador</b> bien sujeto.

The automatic translator makes the **Terminology** and **Text Type** errors, although it is not a

serious error, the human translator solves it in a better way.

**Table 88**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
Turn power off and rotate speed knob to minimum	Apague la unidad y gire la perilla de velocidad a mínimo.	Apague la alimentación y gire la perilla de velocidad al mínimo

The machine translator commits the errors of **Literalness**, **Misunderstanding** and **Faithfulness**, since this instruction implies that the device should be disconnected from the electrical power supply, the human translator performs a better translation by knowing the context and using techniques such as **Amplification**.

**Table 89**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
Hold the unit down and lift the mixing head	Haga presión sobre la unidad y levante el cabezal de agitación.	Sostenga la unidad hacia abajo y levante el cabezal mezclador

The machine translator translated the instruction "haga presión sobre la unidad" in such a way that it can be understood that the device must be tilted or even rotated, thus generating the errors of **Faithfulness**, **Literalness**, **Misunderstanding** and **Ambiguity**, the human translator understands and delivers the instruction in a clear way. Then the **Terminology** and **Text Type** errors are made with the term "mixing head".

**Table 90**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translation
Slowly rotate the speed knob clockwise until the desired mixing level is achieved	Gire lentamente la perilla de velocidad en el sentido de las agujas del reloj hasta que se alcance el nivel de agitación que se desea.	Gire lentamente el mando de velocidad en el sentido de las agujas del reloj hasta alcanzar el nivel de mezcla deseado

The machine translator translates the term "speed knob" as "mando de velocidad", which is not a serious error and the instruction could be understood without major problems, however this can be qualified with the errors of **Terminology** and **Text Type**.

Then there are the errors of **Terminology**, **Faithfulness**, **Text Type**, **Ambiguity** and **Misunderstanding** in the translation of the term "mixing level" since the translation made by Yandex "nivel de mezcla" may imply a different process than the one mentioned in the instructions.

**Table 91**  
*ATA errors and their frequency (Technical texts)*

- Summary

Technical Texts						
Types of error	Google Translate		DeepL		Yandex	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Addition	0	0	0	0	0	0
Ambiguity	5	11,36	6	15,79	5	11,11
Capitalization	0	0	0	0	0	0
Cohesion	0	0	0	0	0	0
Diacritical Marks	0	0	0	0	0	0
Faithfulness	7	15,91	6	15,79	8	17,78
Faux Ami	0	0	0	0	0	0
Grammar	0	0	0	0	1	2,22
Illegibility	0	0	0	0	0	0
Indecision	1	2,27	0	0	0	0
Literalness	6	13,64	7	18,42	7	15,56
Misunderstanding	5	15,91	5	13,16	5	11,11
Omission	4	9,09	0	0	3	6,67
Punctuation	0	0	0	0	0	0
Register	0	0	0	0	0	0
Spelling	0	0	0	0	0	0
Style	0	0	0	0	0	0
Syntax	0	0	0	0	0	0
Terminology	9	20,45	8	21,05	9	20
Text Type	7	15,91	6	15,79	7	15,56
Unfinished	0	0	0	0	0	0

Usage	0	0	0	0	0	0
Verb Tense	0	0	0	0	0	0
Word Form Part of Speech	0	0	0	0	0	0

The errors and the frequency of errors made by the machine translators were counted, resulting in a total of 127 errors between the two technical texts. Google made 8 of the 24 errors in the table, making 44 errors in total, these being **Terminology** (20%), **Text Type** and **Faithfulness** (16%), **Literalness** (14%), **Ambiguity** and **Misunderstanding** (11%), **Omission** (9%) and **Indecision** (2%). For its part, DeepL made 6 of the 24 errors in the table, making 38 errors in total, these being **Terminology** (21%), **Literalness** (18%), **Ambiguity**, **Faithfulness** and **Text Type** (16%) and **Misunderstanding** (13%). Finally, Yandex made 8 of the 24 errors in the table, making 45 errors in total, these being **Terminology** (20%), **Faithfulness** (18%), **Literalness** and **Text Type** (16%), **Ambiguity** and **Misunderstanding** (11%), **Omission** (7%) and **Grammar** (2%). With all the information obtained from the different analyses, it can be concluded that DeepL Translator was the most accurate of all, however, no translator did a job that could be used in a professional environment since they are not able to use the correct terminology, a fundamental aspect of technical texts. Google is not that far behind DeepL, but it makes simpler mistakes than DeepL (besides the terminology). Yandex was undoubtedly the worst of all, it could not solve instructions in the same way that the other translators could (besides the terminology). Technical texts do not present so many problems for machine translators as long as they do not use technical terms or complex or easy to misunderstand instructions, however this kind of problems are recurrent in this kind of texts, so automatic translators performed less well than expected.

## 4.5 Scientific Texts

### Text #1

The following inquire into new scientific evidence for interventions, building on the findings and recommendations on child development, and proposes pathways for implementation of early childhood development at scale. Published in The Lancet, October 2016. And also, translated by The Lancet.

**Table 92**

Parallel corpus of “Advancing Early Childhood Development: from Science to Scale”

Retrieved from	Corpus “Advancing Early Childhood Development: from Science to Scale” <i>[Black MM, Walker SP, Fernald LCH, Andersen CT, DiGirolamo AM, Lu C, McCoy DC, Fink G, Shawar YR, Shiffman J, Devercelli AE, Wodon QT, Vargas-Barón E, Grantham-McGregor S; Lancet Early Childhood Development Series Steering Committee.]</i>	Amount of words
<b>Source Text</b>	The <b>burden and cost of inaction is high</b> . A staggering 43 percent of children under five years of age—an estimated 250 million—living in low- and middle-income countries are at risk of suboptimal development due to poverty and stunting. The burden is currently <b>underestimated</b> because risks to health and wellbeing go <b>beyond these two factors</b> . A poor start in life can lead to <b>poor health</b> , nutrition, and inadequate learning, resulting in low adult earnings as well as social tensions. Negative consequences impact not only present but also future generations.	88
<b>Target Text</b> official translation by The Lancet	Las <b>consecuencias de salud y económicas</b> de no actuar son elevadas. Un <b>alarmante</b> 43% de los niños menores de cinco años que viven en países de ingresos bajos y medianos (en total, unos 250 millones de niños) están en riesgo de tener un desarrollo inadecuado a causa de la pobreza y el retraso del crecimiento. <b>En realidad</b> , este porcentaje <b>es más elevado</b> porque hay <b>otros factores</b> que representan riesgos para la salud y el bienestar. Un mal comienzo en la vida puede afectar <b>negativamente la salud</b> , la nutrición y el aprendizaje. Estos efectos negativos se extienden a la edad adulta, resultando en bajos ingresos económicos y generando tensiones sociales. Además, estas consecuencias negativas repercuten no solo en la generación actual, sino también en las futuras.	125

<b>DeepL</b> Translation #1	La <b>carga y el coste</b> de la inacción son elevados. Un <b>asombroso</b> 43% de los niños menores de cinco años <b>-unos 250 millones-</b> que viven en países <b>de ingresos bajos y medios de ingresos bajos y medios</b> corren el riesgo de no alcanzar un desarrollo óptimo debido a la pobreza y el retraso en el crecimiento. Actualmente <b>se subestima la carga</b> porque los riesgos para la salud y el bienestar <b>van más allá de estos dos factores</b> . Un mal comienzo en la vida puede conducir a <b>una mala salud</b> , nutrición y aprendizaje inadecuado, lo que se traduce en bajos ingresos en la edad adulta, así como en tensiones sociales. Las consecuencias negativas no sólo afectan a las generaciones presentes, sino también a las futuras.	<u><b>124</b></u>
<b>Google Translate</b> Translation #1	La <b>carga y el costo</b> de la inacción son altos. Un <b>asombroso</b> 43 <b>por ciento</b> de los niños menores de cinco años, aproximadamente 250 millones, que viven en hogares de ingresos bajos y <b>medianos</b> . <b>los</b> países corren el riesgo de un <b>desarrollo subóptimo</b> debido a la pobreza y el retraso del crecimiento. Actualmente, <b>la carga se subestima</b> porque los riesgos para la salud y el bienestar van <b>más allá de estos dos factores</b> . Un mal comienzo en la vida puede conducir a una salud y nutrición deficientes y a un aprendizaje inadecuado, lo que <b>genera bajos ingresos para los adultos</b> y tensiones sociales. Las consecuencias negativas impactan no solo a las generaciones <b>presentes</b> sino también a las futuras.	<u><b>118</b></u>
<b>Yandex Translate</b> Translation #1	La <b>carga y el costo</b> de la inacción son elevados. Un <b>asombroso</b> 43 <b>por ciento</b> de los niños menores de cinco años—se estima que 250 millones—que viven en países de ingresos bajos y <b>medianos</b> corren el riesgo de tener un <b>desarrollo subóptimo</b> debido a la pobreza y el retraso en el crecimiento. La carga <b>se subestima actualmente</b> porque los riesgos para la salud y el bienestar <b>van más allá de estos dos factores</b> . Un mal comienzo en la vida puede conducir a una mala salud, nutrición y aprendizaje inadecuado, lo que <b>resulta en bajos ingresos para los adultos</b> , así como en tensiones sociales. Las consecuencias negativas afectan no solo a las generaciones <b>presentes</b> , sino también a las futuras.	<u><b>118</b></u>

**Table 93***Holistic Approach for DeepL translation (Scientific text)*

- Holistic Approach (Translation made by DeepL)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon	<input checked="" type="checkbox"/>			
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent		<input checked="" type="checkbox"/>		
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		<input checked="" type="checkbox"/>		

- Analytical method (Translation made by DeepL)

**Table 94**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
The burden and cost of inaction is high.	Las <b>consecuencias</b> de salud y <b>económicas</b> de no actuar son elevadas.	La <b>carga</b> y el <b>coste</b> de la <b>inacción</b> son elevados.

The first thing error that can be seen is **Literalness**, the translator uses words that have the same meaning but sound awkward. This applies to the words "burden", "costs" and "inaction". The official translator modulates the sentences by adding context. The official translator's equivalent choice should also be considered, since it is according to the context of the text. This can be seen in the word "consecuencias" and "economicas" (consecuencias economicas)

**Table 95**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
A staggering 43 percent of children under five years of age (...)	Un alarmante <b>43%</b> de los niños menores de cinco años (...)	Un asombroso <b>43%</b> de los niños menores de cinco años (...)

**Terminology** error of the word "staggering", this since "asombroso" expresses a direction that is not intended in the original text, and can be interpreted as something "good" or "positive", while the correct meaning is to express alarm or warning. In the same line, **Ambiguity** should be also considered since the word mentioned can have these two meanings, which could be confusing for the readers. It should also be noted a **Punctuation** error, since there should be a space between the number and the percentage symbol (43 %), this according to The International Bureau of Weights and Measures which is supported by the RAE. This last error is also present in the official translation.

**Table 96***Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
(...) living in low- and middle-income countries are at risk of suboptimal development due to poverty and stunting.	que viven en países de <b>ingresos bajos y medianos</b> (en total, unos 250 millones de niños) están en riesgo de tener un desarrollo inadecuado a causa de la pobreza y el retraso del crecimiento.	(...) que viven en países de <b>ingresos bajos y medios de ingresos bajos y medios</b> corren el riesgo de no alcanzar un desarrollo óptimo debido a la pobreza y el retraso en el crecimiento.

It seems that DeepL had trouble translating this line, since the phrase "de ingresos bajos y medios" is repeated twice. This is considered a **Syntax** error, since it corrupts the translation and understanding of the segment. This under the consideration that there is an improper modification of the original arrangement. This error can also be considered a **Faithfulness** error, since the MT did not respect the source text structure and added information that was not in the original work. In a different line, the term "países de bajos y medios ingresos" might not be completely mistaken, but could be considered a **Terminology** error. This since term appropriate in the field is the one used by the official translator "ingresos medianos". The segment was also translated mostly word by word, so there is also **Literalness** in this segment.

**Table 97***Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
The burden is currently underestimated because risks to health and wellbeing go beyond these two factors.	En realidad, este <b>porcentaje</b> es más elevado porque hay otros factores que representan riesgos para la salud y el bienestar.	<b>Actualmente</b> se subestima la <b>carga</b> porque los riesgos para la salud y el bienestar van más allá de estos dos factores.

A clear example of a **Literalness** error through the whole segment, the MT follows the source text word by word while the human translator modulates it by considering the context of the text. There is also the lack of a comma after the word "Actualmente" and it is considered a **Punctuation** error, this since the conventions of punctuation of the target language are not being followed. An **Omission** error could be also applicable in this case since the implication

of the word "burden", in this case the percentage indicated in the original text, is ignored by the MT. Due to the official translator's modulation, the segment can be read and perceived more natural in the target language. It is also more complete since the word choice is in accordance with the context of the text.

**Table 98**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Negative consequences impact not only present but also future generations.	Además, estas consecuencias negativas repercuten no solo en la generación actual, sino también en las futuras.	Las consecuencias negativas no <b>sólo</b> afectan a las generaciones <b>presentes</b> , sino también a las futuras.

First, it can be seen a **Diacritical Mark / Accent** error. The word "sólo" should not have a diacritical mark since there is no risk of ambiguity and so is not necessary. Secondly, there is a **Terminology** error, the equivalent "presente" has an inappropriate meaning in this context, the correct word is "actuales". In the same line, there is an **Ambiguity** error since the word "presentes" has more than one interpretation, 1) either something that exists in the current moment, or 2) something that is located or exists in a particular place.

**Table 99**

*Holistic Approach for Google translation (Scientific text)*

- Holistic Approach (Translation made by Google)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations			☑	

1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent		<input checked="" type="checkbox"/>		
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		<input checked="" type="checkbox"/>		

- Analytical method (Translation made by Google)

**Table 100**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translate translation
A staggering 43 percent of children under five years of age—an estimated 250 million—living in low- and middle-income countries are at risk of suboptimal development due to poverty and stunting.	Un alarmante 43% de los niños menores de cinco años que viven en países de ingresos bajos y medianos (en total, unos 250 millones de niños) están en riesgo de tener un desarrollo inadecuado a causa de la pobreza y el retraso del crecimiento.	Un <b>asombroso</b> 43 por ciento de los niños menores de cinco años, aproximadamente 250 millones, que viven en hogares de ingresos bajos y medianos. <b>los</b> países corren el riesgo de un desarrollo subóptimo debido a la pobreza y el retraso del crecimiento.

It can be seen the same incorrect equivalent selection as in DeepL translation of the word "staggering" that is used in the original text to express alarm and warning, a sense that is not expressed by the word "asombroso" which can be interpreted as "good" or "positive". This is considered a **Terminology** error. Due to the existence of more than one interpretation of the word "asombroso" (something that draws attention to itself either as something "positive" or "negative"). It should be considered also as an **Ambiguity** error. In a different line there is a **Punctuation** error, this because of the stop added after the word "medianos", which does not exist in the original text. Even if there was a stop in the sentence, there is **Capitalization** error since the following word does not start with an upper capped letter. The equivalent choice of the official translator leaves no room for ambiguity. **Literalness** can be seen throughout the MT translation.

**Table 101**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translate translation
The burden is currently underestimated because risks to health and wellbeing go beyond these two factors.	En realidad, este porcentaje es más elevado porque hay otros factores que representan riesgos para la salud y el bienestar.	Actualmente, la <b>carga se subestima</b> porque los riesgos para la salud y el bienestar van más allá de estos dos factores.

There is a **Style** error since there is a use of passive voice in Google Translate translation, this since the grammatical structure of passive voice might be part of the standard in English but not in Spanish. As well as in DeepL translation, **Literalness** can be seen through the whole segment, human translator modulates the segment while the MT translates it word by word. The equivalent choice is more accurate from the human translator, this due to the understanding of the context.

**Table 102**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translate translation
Negative consequences impact not only present but also future generations.	Además, estas consecuencias negativas repercuten no solo en la generación actual, sino también	Las consecuencias negativas impactan no solo a las generaciones <b>presentes(.)</b> sino

	en las futuras.	también a las futuras.
--	-----------------	------------------------

**Literalness, Terminology** and **Ambiguity** errors can be seen in this segment. Terminology error, since the equivalent chosen in this case has an incorrect meaning in relation with the context of the sentence. The correct equivalent is the one used by the official translator (actual). Ambiguity error, since the word "presentes" in this context has more than one interpretation: Either 1) something that exists in the current moment or 2) something that is located or exists in a particular place. Literalness, since the MT translated the segment word by word, no modulation or other technique to avoid this can be discerned. It should be noted that the official translator added "además" as a way to connect the ideas between segments.

**Table 103**

*Holistic Approach for Yandex translation (Scientific text)*

- Holistic Approach (Translation made by Yandex)

LO1: Be able to produce translation of a general text that shows accurate transfer of information
---

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		☑		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		☑		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		☑		

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			☑	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			☑	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			☑	

- Analytical method (Translation made by Yandex)

**Table 104**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
A staggering 43 percent of children under five years of age—an estimated 250 million—living in low- and middle-income countries are at risk of suboptimal development due to poverty and stunting.	Un alarmante 43% de los niños menores de cinco años que viven en países de ingresos bajos y medianos (en total, unos 250 millones de niños) están en riesgo de tener un desarrollo inadecuado a causa de la pobreza y el retraso del crecimiento.	La <b>carga y el costo</b> de la inacción son elevados. Un <b>asombroso</b> 43 por ciento de los niños menores de cinco años—se estima que 250 millones—que viven en países de ingresos bajos y medianos corren el riesgo de tener un <b>desarrollo subóptimo</b> debido a la pobreza y el retraso en el crecimiento.

The first error that can be seen is **Literalness**, the translator uses words that have the same meaning but sound quite right or natural. This applies to the words "burden", "costs" and "inaction". The official translator modulates the sentences by choosing the equivalent according to the context of the text.

It can be seen the same incorrect equivalent selection as in DeepL's and Google Translate's

translations of the word "staggering" that is used in the original text to express alarm and warning, a sense that is not quite expressed by the word "asombroso" which can be interpreted as "good" or "positive". This is considered a **Terminology** and **Ambiguity** error. **Literalness** can also be seen in the translation of the phrase "suboptimal development" since it was translated word by word. This can also be considered a **Terminology** error. The official translator uses the context to choose an equivalent.

**Table 105**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
The burden is currently underestimated because risks to health and wellbeing go beyond these two factors.	En realidad, este porcentaje es más elevado porque hay otros factores que representan riesgos para la salud y el bienestar.	La carga se <b>subestima</b> actualmente porque los riesgos para la salud y el bienestar van más allá de estos dos factores.

There is a **Style** error since there is a use of passive voice in this MT translation. This since the grammatical structure of passive voice might be part of the standard in English but not in Spanish. **Literalness** can also be seen through the segment, there is a word by word translation while the official translation modulates the segment to give it a more natural feeling. The equivalent choice is also more accurate, since it is according to the context.

**Table 106**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
Negative consequences impact not only present but also future generations.	Además, estas consecuencias negativas repercuten no solo en la generación <b>actual</b> , sino también en las futuras.	Las consecuencias negativas afectan no solo a las generaciones <b>presentes</b> , sino también a las futuras.

A **Terminology** error can be seen in this segment. This, since the equivalent chosen for the term "present" in this case has an incorrect meaning in relation with the context of the sentence. The correct equivalent is the one used by the official translator (which is 'actual'). There is also an **Ambiguity** error, since the word "presentes" in this context has more than one interpretation: Either 1) something that exists in the current moment 2) or something that is located or exists

in a particular place. A finally a **Literalness** error since the MT translated the segment word by word, no modulation can be discerned.

## Text #2

The following text discusses cancer control challenges in Latin America and the Caribbean, such as health coverage, cultural barriers to care, health care financing, and cancer care disparities. Furthermore, the authors investigate innovative strategies for cancer control in the region. This text was translated by Dr. Patricia Congolani

**Table 107**

*Parallel corpus of “Effect of mammographic screening from age 40 years on breast cancer mortality in the UK Age trial at 17 years' follow-up: a randomised controlled trial.”*

Retrieved from	Corpus	Amount of words
<b>Source Text</b>	<p><i>Effect of mammographic screening from age 40 years on breast cancer mortality in the UK Age trial at 17 years' follow-up: a randomised controlled trial.</i></p> <p>[Moss, S. M., Wale, C., Smith, R., Evans, A., Cuckle, H., &amp; Duffy, S. W. (2015)]</p> <p>No significant difference in all-cause mortality was found between the two groups by the end of follow-up, with 3507 deaths in the intervention group versus 6932 deaths in the control group (RR 1 · 01 [95 % CI 0 · 96 – 1 · 05]; p = 0 · 66). Mortality from causes other than breast cancer was also not different between the two groups, with 3169 deaths versus 6189 deaths (1 · 02 [0 · 97 – 1 · 07]; p=0 · 43). We also analysed deaths from all cancers (including breast cancer) and from ischaemic heart disease. There was no significant difference between groups in deaths from all cancers, with 1770 deaths versus 3564 deaths (0 · 99 [0 · 93 – 1 · 05]; p=0 · 74), or in deaths from ischaemic heart disease, with 230 deaths versus 444 deaths (1 · 03 [0 · 87 – 1 · 20]; p=0 · 72).</p>	139
<b>Target Text</b> official translation by Dra. Patricia Cingolani	<p>No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con 3507 muertes en el grupo de intervención versus 6932 muertes en el grupo de control (RR 1 · 01 [IC 95% 0 · 96-1 · 05]; p = 0 · 66).</p> <p>La mortalidad por causas distintas del cáncer de mama tampoco fue diferente entre los dos grupos, con 3169 muertes frente a 6189 muertes (1 · 02 [0 · 97-1 · 07]; p = 0 · 43). También analizamos las muertes por todos los cánceres (incluido el cáncer de mama) y por cardiopatía isquémica. No hubo diferencias significativas entre los grupos en las muertes por todos los cánceres, con 1770 muertes versus 3564 muertes (0 · 99 [0 · 93-1 · 05]; p = 0 · 74), o en las muertes por cardiopatía isquémica, con 230 muertes versus 444 muertes (1 · 03 [0 · 87-1 · 20]; p = 0 · 72).</p>	148

<p><b>DeepL</b> Translation #2</p>	<p>No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con <b>3.507</b> muertes en el grupo de intervención frente a <b>6.932</b> muertes en el grupo de control (<b>RR 1.01 [IC 95% 0.96-1.05]</b>; p=0.66). La mortalidad por causas distintas al cáncer de mama tampoco fue diferente entre los dos grupos, con <b>3169</b> muertes frente a <b>6189</b> muertes (<b>1.02 [0.97-1.07]</b>; p=0.43). También se <b>analizaron</b> las muertes por todos los cánceres (incluido el de mama) y por cardiopatía isquémica. No hubo diferencias significativas entre los grupos en las muertes por todos los cánceres, con <b>1.770</b> muertes frente a <b>3.564</b> muertes (<b>0.99 [0.93-1.05]</b>; p=0.74), ni en las muertes por cardiopatía isquémica, con 230 muertes frente a 444 (<b>1.03 [0.87-1.20]</b>; p=0.72).</p>	<p><b><u>150</u></b></p>
<p><b>Google Translate</b> Translation #2</p>	<p>No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con 3507 muertes en el grupo de intervención frente a 6932 muertes en el grupo de control (RR 1.01 [IC 95% 0.96–1.05]; p=0.66). La mortalidad por causas distintas al cáncer de mama tampoco fue diferente entre los dos grupos, con 3169 muertes versus 6189 muertes (1.02 [0.97–1.07]; p=0.43). También analizamos las muertes por todos los tipos de cáncer (incluido el cáncer de mama) y por cardiopatía isquémica. No hubo <b>diferencia</b> significativa entre los grupos en las muertes por todos los cánceres, con 1770 muertes frente a 3564 muertes (<b>0.99 [0.93–1.05]</b>; p=0.74), ni en las muertes por cardiopatía isquémica, con 230 muertes versus 444 muertes (<b>1.03 [0.87–1.20]</b>; p=0.72).</p>	<p><b><u>151</u></b></p>
<p><b>Yandex Translate</b> Translation #2</p>	<p>No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con 3507 muertes en el grupo de intervención frente a 6932 muertes en el grupo de control (<b>CR 1.01 [IC 95% 0.96-1.05]</b>; p=0.66). La mortalidad por causas distintas al cáncer de mama tampoco fue diferente entre los dos grupos, con 3169 muertes frente a 6189 muertes (<b>1.02 [0.97-1.07]</b>; p=0.43). También se analizaron las muertes por todos los cánceres (incluido el cáncer de mama) y por cardiopatía isquémica. No hubo diferencias significativas entre los grupos en las muertes por todos los cánceres, con 1770 muertes versus 3564 muertes (<b>0.99 [0.93-1.05]</b>; p=0.74), o en muertes por cardiopatía isquémica, con 230 muertes frente a 444 muertes (<b>1.03 [0.87-1.20]</b>; p=0.72).</p>	<p><b><u>150</u></b></p>

**Table 108***Holistic Approach for DeepL translation (Scientific text)*

- Holistic Approach (Translation made by DeepL)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon			<input checked="" type="checkbox"/>	
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			<input checked="" type="checkbox"/>	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent		<input checked="" type="checkbox"/>		
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)	<input checked="" type="checkbox"/>			

- Analytical method (Translation made by DeepL)

**Table 109**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL Translation
No significant difference in all-cause mortality was found between the two groups by the end of follow-up, with 3507 deaths in the intervention group versus 6932 deaths in the control group (RR 1 · 01 [95% CI 0 · 96–1 · 05]; p=0 · 66).	No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con 3507 muertes en el grupo de intervención versus 6932 muertes en el grupo de control (RR 1 · 01 [IC 95% 0 · 96-1 · 05]; p=0 · 66).	No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con <b>3.507</b> muertes en el grupo de intervención frente a <b>6.932</b> muertes en el grupo de control ( <b>RR 1-01 [IC 95% 0-96-1-05]</b> ; p=0-66).

It can be seen, firstly a consistent **Spelling / Character** error at the end of the segment where the spaces that should be visible between some of the characters (as it can be seen in the original translation) are not there (between numbers and · ). In the same line, some of the characters are changed for others that are not correct and change completely the intent of the formula ( · changed for - ). This can also be considered a **Faithfulness error**. It should be also mentioned how there is a dot in the numbers (3.507 and 6.932). This is categorized as a **Punctuation** error, since these numbers are spelled 3507 and 6932. Leaving the numbers as the MT translated them could lead to **Ambiguity**, since they could be understood as decimals.

**Table 110**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL Translation
Mortality from causes other than breast cancer was also not different between the two groups, with 3169 deaths versus 6189 deaths (1 · 02 [0 · 97–1 · 07]; p = 0 · 43).	La mortalidad por causas distintas del cáncer de mama tampoco fue diferente entre los dos grupos, con 3169 muertes frente a 6189 muertes (1 · 02 [0 · 97–1 · 07]; p = 0 · 43).	La mortalidad por causas distintas al cáncer de mama tampoco fue diferente entre los dos grupos, con <b>3169</b> muertes frente a <b>6189</b> muertes (1-02 [0-97-1-07]; p=0-43).

It can be seen once again **Spelling / Character** error at the end of the segment, where the spaces that should be visible between the · characters are not respected. Also, the wrong replacement of a character ( · ) that could be considered a **Faithfulness** error since the target text is not respecting the original meaning of the source text. In a different line, even though the numbers 3169 and 6189 now comply with Spanish rules, we should consider this an **Indecision** error. This due to the fact that the MT gives more than one translation and there is an inconsistency in the text (compare the numbers with the segment above).

**Table 111**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL Translation
There was no significant difference between groups in deaths from all cancers, with 1770 deaths versus 3564 deaths (0·99 [0·93-1·05]; p=0·74), or in deaths from ischaemic heart disease, with 230 deaths versus 444 deaths (1·03 [0·87-1·20]; p=0·72).	No hubo diferencias significativas entre los grupos en las muertes por todos los cánceres, con 1770 muertes versus 3564 muertes (0·99 [0·93-1·05]; p = 0·74), o en las muertes por cardiopatía isquémica, con 230 muertes versus 444 muertes (1·03 [0·87-1·20]; p = 0·72).	No hubo diferencias significativas entre los grupos en las muertes por todos los cánceres, con <b>1.770</b> muertes frente a <b>3.564</b> muertes ( <b>0-99 [0-93-1-05]; p=0-74</b> ), ni en las muertes por cardiopatía isquémica, con 230 muertes frente a 444 ( <b>1-03 [0-87-1-20]; p=0-72</b> ).

It can be seen once again a consistent **Spelling / Character** error now in a different segment, where the spaces that should be visible between the · characters are not respected. In the same line, it can be seen the wrong replacement of a character ( · ) that could be considered also as **Faithfulness** error. This on the grounds that the target text is not respecting the original meaning of the source text. Additionally, it can be seen once again this inconsistency in the punctuation of some numbers (3.564 instead of 3564) this is considered an **Indecision** error, since the MT not only is inconsistent in its translation but is also more than one translation of a translation unit is given.

**Table 112***Holistic Approach for Google translation (Scientific text)*

- Holistic Approach (Translation made by Google)

LO1: Be able to produce translation of a general text that shows accurate transfer of information
---

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations	<input checked="" type="checkbox"/>			
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon				<input checked="" type="checkbox"/>
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language
---

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			<input checked="" type="checkbox"/>	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent		<input checked="" type="checkbox"/>		
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			<input checked="" type="checkbox"/>	

- Analytical method (Translation made by Google)

**Table 113**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translate Translation
No significant difference in all-cause mortality was found between the two groups by the end of follow-up, with 3507 deaths in the intervention group versus 6932 deaths in the control group (RR 1 · 01 [95% CI 0 · 96–1 · 05]; p=0·66).	No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con 3507 muertes en el grupo de intervención versus 6932 muertes en el grupo de control (RR 1 · 01 [IC 95% 0 · 96-1 · 05]; p = 0 · 66).	No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con 3507 muertes en el grupo de intervención frente a 6932 muertes en el grupo de control ( <b>RR 1·01 [IC 95% 0·96–1 ·05]; p=0,66).</b>

In the case of Google Translate, there is **no Punctuation** error as in DeepL since the numbers are spelled correctly (3507 and 6923). But the same **Spelling / Character** error is repeated, since there is no space between the · characters, as there is in the original text or the official translation.

**Table 114**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	DeepL Translation
Mortality from causes other than breast cancer was also not different between the two groups, with 3169 deaths versus 6189 deaths (1 · 02 [0 · 97–1 · 07]; p = 0 · 43).	La mortalidad por causas distintas del cáncer de mama tampoco fue diferente entre los dos grupos, con 3169 muertes frente a 6189 muertes (1 · 02 [0 · 97–1 · 07]; p = 0 · 43).	La mortalidad por causas distintas al cáncer de mama tampoco fue diferente entre los dos grupos, con 3169 muertes <b>versus</b> 6189 muertes ( <b>1·02 [0·97–1·07]; p=0·43).</b>

Not much no mention in this segment since the same **Spelling / Character** error is repeated. The space between the · character is not respected. Moreover, something that should be addressed is the translation of "versus" is inconsistent in comparison with the segment above, since it was translated as "frente". This is enough to be considered an **Indecision** error, but

translating consistently a term as this one is important for maintaining a good and natural structure in the target text.

**Table 115**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google Translate Translation
There was no significant difference between groups in deaths from all cancers, with 1770 deaths versus 3564 deaths (0·99 [0·93–1·05]; p=0·74), or in deaths from ischaemic heart disease, with 230 deaths versus 444 deaths (1·03 [0·87–1·20]; p=0·72).	No hubo diferencias significativas entre los grupos en las muertes por todos los cánceres, con 1770 muertes versus 3564 muertes (0·99 [0·93–1·05]; p = 0·74), o en las muertes por cardiopatía isquémica, con 230 muertes versus 444 muertes (1·03 [0·87–1·20]; p = 0·72).	No hubo diferencia significativa entre los grupos en las muertes por todos los cánceres, con 1770 muertes frente a 3564 muertes ( <b>0,99 [0,93–1,05]; p=0,74</b> ), ni en las muertes por cardiopatía isquémica, con 230 muertes versus 444 muertes ( <b>1·03 [0·87–1·20]; p=0·72</b> ).

Many inconsistencies in this segment. The same **Spelling / Character** error that is repeated throughout the translation. The spaces between the · characters are not respect and in some cases are wrongly replaced by a ‘,’. This could be considered a **Faithfulness** and **Misunderstanding** error. This on the grounds that, firstly, the target text does not respect the meaning of the source text by wrongly replacing the original character. Secondly, a misunderstanding error since this replacement clearly comes from the misinterpretation of the character by the MT.

**Table 116***Holistic Approach for Yandex translation (Scientific text)*

- Holistic Approach (Translation made by Yandex)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon			<input checked="" type="checkbox"/>	
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language				<input checked="" type="checkbox"/>

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language			<input checked="" type="checkbox"/>	
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent			<input checked="" type="checkbox"/>	
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)			<input checked="" type="checkbox"/>	

- Analytical method (Translation made by Yandex)

**Table 117**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translate Translation
No significant difference in all-cause mortality was found between the two groups by the end of follow-up, with 3507 deaths in the intervention group versus 6932 deaths in the control group (RR 1 · 01 [95% CI 0 · 96–1 · 05]; p=0·66).	No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con 3507 muertes en el grupo de intervención versus 6932 muertes en el grupo de control (RR 1 · 01 [IC 95% 0 · 96-1 · 05]; p = 0 · 66).	No se encontraron diferencias significativas en la mortalidad por todas las causas entre los dos grupos al final del seguimiento, con 3507 muertes en el grupo de intervención frente a 6932 muertes en el grupo de control ( <b>CR 1·01 [IC 95% 0·96-1·05]; p=0·66</b> ).

Same **Spelling / Character** error that is repeated throughout all the MT's. The space that should be between the numbers and the characters · in not present. A different error that is highlighted in the case of Yandex is the translation of "RR" as "CR" which is considered a **Terminology** error. This on the grounds that the MT chose an incorrect word or, in this case, abbreviation to this specific context and subject field. This error could be also considered a **Faithfulness**, this taking into account that the target text does not respect the meaning.

**Table 118**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translate Translation
Mortality from causes other than breast cancer was also not different between the two groups, with 3169 deaths versus 6189 deaths (1 · 02 [0 · 97–1 · 07]; p = 0 · 43).	La mortalidad por causas distintas del cáncer de mama tampoco fue diferente entre los dos grupos, con 3169 muertes frente a 6189 muertes (1 · 02 [0 · 97–1 · 07]; p = 0 · 43).	La mortalidad por causas distintas al cáncer de mama tampoco fue diferente entre los dos grupos, con 3169 muertes frente a 6189 muertes ( <b>1·02 [0·97-1·07]; p=0·43</b> ).

Same **Spelling / Character** error that is repeated throughout all the MT's. Spaces are not respected between the numbers and the character.

**Table 119***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex Translate Translation
There was no significant difference between groups in deaths from all cancers, with 1770 deaths versus 3564 deaths (0.99 [0.93-1.05]; p=0.74), or in deaths from ischaemic heart disease, with 230 deaths versus 444 deaths (1.03 [0.87-1.20]; p=0.72).	No hubo diferencias significativas entre los grupos en las muertes por todos los cánceres, con 1770 muertes versus 3564 muertes (0.99 [0.93-1.05]; p = 0.74), o en las muertes por cardiopatía isquémica, con 230 muertes versus 444 muertes (1.03 [0.87-1.20]; p = 0.72).	No hubo diferencias significativas entre los grupos en las muertes por todos los cánceres, con 1770 muertes versus 3564 muertes ( <b>0.99 [0.93-1.05]; p=0.74</b> ), o en muertes por cardiopatía isquémica, con 230 muertes frente a 444 muertes ( <b>1.03 [0.87-1.20]; p=0.72</b> ).

Same **Spelling / Character** error that is repeated throughout all the MT's. Spaces are not respected between the numbers and the · character. Also, the same inconsistency of the translation of the word "versus" that was seen in the Google Translate's translation. This should be addressed as an **Indecision** error. Since even though there is an inconsistency of the translation, it does not affect the meaning that much. But a more consistent translation of this term would result in a more natural translation.

**Table 120***ATA errors and their frequency (Scientific text)*

- Summary

Scientific Texts						
Types of error	Google Translate		DeepL		Yandex	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Addition	0	0	0	0	0	0
Ambiguity	2	4,34	3	5,45	2	4,87
Capitalization	1	2,17	0	0	0	0
Cohesion	0	0	1	1,81	0	0
Diacritical Marks	0	0	1	1,81	0	0
Faithfulness	4	8,69	14	25,45	1	2,43
Faux Ami	0	0	0	0	0	0
Grammar	0	0	0	0	0	0
Illegibility	0	0	0	0	0	0
Indecision	1	2,17	2	3,63	1	2,43
Literalness	3	6,52	3	5,45	4	9,75
Misunderstanding	1	2,17	0	0	0	0
Omission	0	0	1	1,81	0	0
Punctuation	1	2,17	4	7,27	0	0
Register	0	0	0	0	0	0
Spelling	29	63,04	22	40	28	68,29
Style	1	2,17	0	0	1	2,43
Syntax	0	0	1	1,81	0	0
Terminology	3	6,52	3	5,45	4	9,75
Text Type	0	0	0	0	0	0
Unfinished	0	0	0	0	0	0

Usage	0	0	0	0	0	0
Verb Tense	0	0	0	0	0	0
Word Form Part of Speech	0	0	0	0	0	0

For each machine translation (Google, DeepL and Yandex) errors were counted and their mean frequency calculated. Having as a result that in the scientific texts, among the 24 types of errors considered for this research and delivered by the ATA. Google, between the two texts analyzed committed 10 types of errors, which order in keeping with their frequency is as follows: **Spelling** (63%), **Faithfulness** (9%), **Terminology** and **Literalness** (7%), **Ambiguity** (4%), **Misunderstanding** (2%), **Style** (2%), **Punctuation** (2%), **Capitalization** (2%) and **Indecision** (2%). In this way, Google has a total of 46 errors committed between the two scientific texts. For its part, DeepL between the two texts analyzed committed 11 types of errors, whose order in accordance with their frequency is as follows: **Spelling** (40%), **Faithfulness** (25%), **Punctuation** (7%), **Ambiguity** (5%), **Literalness** (5%), **Terminology** (5%), **Indecision** (4%), **Syntax** (2%), **Omission** (2%), **Diacritical Marks** (2%), and **Cohesion** (2%). Thus, DeepL has a total of 55 errors committed between the two scientific texts. Finally, Yandex between the two texts analyzed committed 7 types of errors, which order as stated in their frequency is as follows: **Spelling** (68%), **Terminology** (10%), **Literalness** (10%), **Ambiguity** (5%), **Style** (2%), **Indecision** (2%) and **Faithfulness** (2%). In this way, Yandex has a total of 41 errors committed between the two scientific texts. Taking into account the information from the holistic and analytical analysis, it is concluded that in the scientific texts the machine translator that had a better performance translating is the Yandex translator, followed by DeepL translator and Google translator. Though, it should be understood that even if Yandex has better numbers compared to the other translators, all three of them committed similar errors. Errors that are very impactful on the understanding of the text. Part of the difficulty of scientific texts are the terminology and of course the spelling that involves formulas and different data that the text might have. Both of these aspects had several errors in the machine translation, which is a major problem regarding the fidelity of the translation.

#### 4.6 Literary texts

##### **Text #1**

The following extract was retrieved from the book "Mr. Mercedes" by Stephen King. The

sample consists of 166 words. The official translation consists of 181 words and was translated by Carlos Milla Soler. The novel is about a psychopathic killer who drives a stolen Mercedes into a crowd. The extract below is when the killer ran over the crowd of job-seekers.

**Table 121**

*Parallel corpus of “Mr. Mercedes”*

Retrieved from	Corpus <i>Mr. Mercedes</i> (Stephen King)	Amount of words
<b>Source Text</b>	<p>An <b>elderly fellow</b> in line ahead of Augie (Wayne Welland, now in the last moments of his earthly existence) said: "Is that a <b>Benz</b>? It looks like a Benz."</p> <p>Augie <b>started to say</b> of course it was, you couldn't mistake a Mercedes's <b>HD headlamps</b>, and then the driver of the car directly behind the <b>vague shape</b> laid on <b>his horn—a long, impatient blast</b>. The <b>HD lights</b> flashed brighter than ever, cutting brilliant white cones through the suspended droplets of the fog, and the car leaped forward as if the impatient <b>horn</b> had <b>goosed it</b>.</p> <p>"<b>Hey!</b>" Wayne Welland said, surprised. It was <b>his final word</b>.</p> <p>The car accelerated directly at the place where the crowd of <b>job-seekers</b> was most tightly packed, and hemmed in by the <b>DO NOT CROSS</b> tapes. Some of them tried to run, but only <b>the ones at the rear</b> of the crowd were able to break free. Those closer to the doors—the <b>true Early Birds</b>—had no chance.</p>	166
<b>Target Text</b> official translation by Carlos Milla Soler	<p>Un <b>hombre de cierta edad</b>, por delante de Augie en la cola (Wayne Welland, ya en los últimos momentos de su existencia terrenal), dijo:</p> <p>—¿<u>Eso es</u> un <b>Mercedes</b>? Parece un Mercedes.</p> <p>Augie <b>se disponía a decir</b> que claro que lo era, que <b>los faros de alta intensidad</b> de un Mercedes eran inconfundibles, cuando el conductor del coche situado justo detrás de la <b>forma desdibujada</b> del Mercedes <b>tocó el claxon</b>: un <b>bocinazo prolongado e impaciente</b>.</p> <p>Los faros de <b>alta intensidad</b> brillaron más aún, <b>formando</b> resplandecientes conos blancos en las gotas en suspensión</p>	181

	<p>presentes en la niebla, y el coche dio un brinco al frente como si el impaciente <b>bocinazo hubiese sido una palmada en el trasero.</b></p> <p>—¡Eh! —exclamó Wayne Welland, sorprendido. Fue su <b>última palabra.</b></p> <p>El coche aceleró directamente hacia el lugar donde la multitud de <b>solicitantes de empleo</b> estaba más apiñada, cercada por la cinta con el rótulo <b>PROHIBIDO EL PASO.</b> Algunos intentaron echar a correr, pero solo lograron escapar aquellos <b>situados al fondo.</b> Quienes más cerca de las puertas se hallaban —los <b>verdaderos madrugadores</b>— no tuvieron la menor oportunidad.</p>	
<p><b>DeepL</b> Translation #1</p>	<p>Un <b>anciano</b> en la fila delante de Augie (Wayne Welland, ahora en los últimos momentos de su existencia terrenal) dijo: "<u>¿Es eso un Benz?</u> Parece un Benz".</p> <p>Augie <b>comenzó a decir</b> que por supuesto que lo era, no se podía confundir un Los <b>faros HD</b> de un Mercedes, y entonces el conductor del coche directamente detrás de la <b>forma vaga</b> puso en su <b>cuerno-un largo,</b> un <b>sonido largo e impaciente.</b> Las <b>luces HD</b> brillaron más que nunca, <b>cortando</b> conos blancos brillantes a través de las gotas suspendidas de la niebla, y el coche saltó hacia delante como si el impaciente <b>claxon lo hubiera lo hubiera estimulado.</b></p> <p>"¡Oye!" dijo Wayne Welland, sorprendido. Fue su <b>última palabra.</b></p> <p>El coche aceleró directamente en el lugar donde la multitud de <b>buscadores de empleo</b> estaba más apretujada, y escorada por las cintas de <b>NO CRUZAR.</b> Algunos intentaron huir, pero sólo los que se encontraban en la <b>parte trasera</b> de la multitud pudieron liberarse. Los que</p> <p>Los que estaban más cerca de las puertas, los <b>verdaderos madrugadores,</b> no tenían ninguna posibilidad.</p>	<p><u>177</u></p>
<p><b>Google</b> <b>Translate</b> Translation #1</p>	<p>Un <b>anciano</b> en la fila delante de Augie (Wayne Welland, ahora en los últimos momentos de su existencia <u>terrena</u>) dijo: "<u>¿Es eso un benz?</u> Parece un Benz.</p> <p>Augie <b>empezó a decir</b> que por supuesto que lo era, no podías confundirte.</p>	<p><u>167</u></p>

	<p>Los <b>faros HD</b> de Mercedes, y luego el conductor del automóvil. directamente detrás de la <b>vaga forma</b> puesta en su <b>cuerno—un largo, explosión impaciente</b>. Las <b>luces HD</b> brillaron más que nunca, <b>cortando</b> conos blancos brillantes a través de las gotas suspendidas de la niebla, y el auto saltó hacia adelante como si la <b>bocina <u>impaciente</u> hubiera lo ganó</b>.</p> <p>"¡Oye!" dijo Wayne Welland, sorprendido. fue <b>su final palabra</b>.</p> <p>El auto aceleró directamente en el lugar donde la multitud de <b>buscadores de empleo</b> estaba muy apretado, y cercado por el <b>NO CRUZAR las cintas</b>. Algunos de ellos trataron de correr, pero sólo los que estaban en la <b>parte trasera</b> de la multitud pudieron liberarse. Aquellos más cerca de las puertas, los verdaderos <b>Early Birds</b>, no tenían ninguna posibilidad.</p>	
<p><b>Yandex</b> <b>Translate</b> Translation #1</p>	<p>Un <b>anciano</b> en la fila delante de Augie (Wayne Welland, ahora en los últimos momentos de su existencia terrenal) dijo: "<u>Es que un Benz?</u> Parece un Benz."</p> <p>Augie <b>comenzó a decir</b>, por supuesto que lo era, que no se podía confundir un Los <b>faros HD</b> de Mercedes, y luego el conductor del automóvil directamente detrás de la <b>vaga forma</b> colocada en su <b>cuerno—un largo, explosión impaciente</b>. Las <b>luces de alta definición</b> brillaron más que nunca, <b>cortando</b> conos blancos brillantes a través de las gotas suspendidas de la niebla, y el coche saltó hacia adelante como si la <b>bocina <u>impaciente</u> hubiera ganso</b>.</p> <p>"¡Oye!" Wayne Welland dijo, sorprendido. Era <b>su final palabra</b>.</p> <p>El coche aceleró directamente en el lugar donde la multitud de los <b>solicitantes de empleo</b> estaban más apretados, y rodeados por el <b>NO CRUCE las cintas</b>. Algunos de ellos intentaron correr, pero solo los que estaban en la <b>retaguardia</b> de la multitud pudieron liberarse. Aquellos más cerca de las puertas—los <b>verdaderos Madrugadores</b>, no tenían ninguna posibilidad.</p>	<p><b><u>168</u></b></p>

**Table 122***Holistic Approach for DeepL translation (Literary text)*

- Holistic Approach (Translation made by DeepL)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon		<input checked="" type="checkbox"/>		
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent		<input checked="" type="checkbox"/>		
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		<input checked="" type="checkbox"/>		

- Analytical Method (Translation made by DeepL)

**Table 123**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
An <b>elderly</b> fellow in line ahead of Augie	Un hombre <b>de cierta edad</b> , por delante de Augie en la cola	Un <b>anciano</b> en la fila delante de Augie

Here the problem is in the term "elderly", because this word was translated by DeepL as "anciano". The Machine translator did not solve the **Dysphemism** translation problem. Since, in Spanish the term "anciano" is very direct and can be a derogatory word depending on the context. Also, this term causes the **Terminology** error, due to the fact that an incorrect term was chosen. The human translator decided to use "hombre de cierta edad" which sound better.

**Table 124**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
"Is that a <b>Benz</b> ? It looks like a <b>Benz</b> ."	—¿Eso es un <b>Mercedes</b> ? Parece un <b>Mercedes</b> .	"¿Es eso un un <b>Benz</b> ? Parece un <b>Benz</b> ".

There are several errors in this segment. The first one is for the English quotation marks. Machine translator keeps the English quotes and causes a **Grammar** error. In contrast, Human translator used an Em dash. In Spanish grammar, the Em dash is used for the intervention of the characters in a dialogue. The following errors are caused by the word "Benz" which is the brand of the car. This brand is known as Mercedes-Benz. In Spanish, it makes more sense, and it is natural to name it as Mercedes but not as Benz. The errors made are **Terminology**, and **Literalness**.

**Table 125**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Augie <b>started</b> to say of course it was	Augie se <b>disponía</b> a decir que claro que lo era	Augie <b>comenzó</b> a decir que por supuesto que lo era

In this sentence, the problem is with the words "disponía" and "comenzó". These words have different meanings. "Disponía" means to be about to do something (it is unknown if the action was carried out). "Comenzó" means that the action was carried out, and it started in the past. The equivalent chosen by the Human translator makes more sense, because it has a connection with what follows in the story. Since the character, Augie was unable to say what she was going to say because the Mercedes car ran over her. The errors in this sentence are **Literalness**, **Terminology** and **Verb form**.

**Table 126**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
you couldn't mistake a Mercedes's <b>HD headlamps</b>	los <b>faros de alta intensidad</b> de un Mercedes eran inconfundibles	no se podía confundir un Los <b>faros HD</b> de un Mercedes

There are two errors in this part, the first one is because Machine translator did not translate the "HD", this causes that the sentence is not fully understood. This happens because the acronym "HD" in Spanish is associated with high definition or better image quality. The errors that DeepL made here are **Literalness** and **Faithfulness**. Instead, the human translator used the **Explicitation** technique to solve the **abbreviation** problem.

The second error occurs due to the format of the source text, since the Machine translator did not detect that the first sentence is related to the second sentence. That is why DeepL translated as if the sentences were two different ones. The errors that DeepL made here are **Cohesion** and **Misunderstanding**. It is also noteworthy mentioning that the Human translator performed a **Transposition**, in order to the entire sentence would sound natural.

**Table 127**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
then the driver of the car directly behind <b>the vague shape laid on his horn—a long, impatient blast.</b>	cuando el conductor del coche situado justo detrás de <b>la forma desdibujada del Mercedes tocó el claxon:</b> un bocinazo prolongado e impaciente.	entonces el conductor del coche directamente detrás de <b>la forma vaga puso en su cuerno—un largo, un sonido largo e impaciente.</b>

In this segment, there are several errors made by Machine translator. When in the source text, it says "the vague shape" Human translator decided to put more context, in order to the sentence would not be ambiguous. That is why the translator adds "Mercedes" to clarify that it is talking about the car. On the other hand, Machine translator is very literal in that part –word by word. The translation is confusing and unnatural to read, in other words, this causes the **Literalness** error. Also, there is a **Misundertanding**, **Faithfulness**, and **Terminology** error with the phrase "puso en su cuerno". In this sentence, the meaning of the source text is not being respected. The Faithfulness error can be differentiated by reading the entire segment, because it can make the reader think that the driver has a horn. In the same vain, there is a **Grammar** error with the Em dash, due to the fact that this punctuation mark is used differently in Spanish and English. The Machine translator translated it as a hyphen, which is also an error. The Human translator followed the rules of Spanish grammar and changed Em dash to a colon. Finally, as in the previous segment there is a **Cohesion** and **Misunderstanding** error due to the format, since the Machine translator not detected that the sentence above is linked to the one below. That is why it seems that there are two different sentences and is also a repetition with the word "largo".

**Table 128**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
The <b>HD lights</b> flashed brighter than ever, <b>cutting</b> brilliant white cones through the suspended droplets of the fog	Los <b>faros de alta intensidad</b> brillaron más aún, <b>formando</b> resplandecientes conos blancos en las gotas en suspensión presentes en la niebla	Las <b>lucos HD</b> brillaron más que nunca, <b>cortando</b> conos blancos brillantes a través de las gotas suspendidas de la niebla

In this segment there is the same error as in one of the previous table. The word "HD" was not translated, which causes **Literalness** and **Faithfulness** errors. Because HD has another meaning in Spanish such as when an image has higher quality. So the Machine translator omitted to translate this abbreviation and only transferred it as it is in the source text. The second error is found with the word "cutting". Since, Machine translator literally translates the word "cutting" into Spanish. However, this causes the text to not fully understood and the meaning of the text is not transferred either. "Cortando conos blancos brillantes" is not understood, because at the beginning of the segment it talks about lights and then these lights cut white cones. This causes errors of **Literalness**, **Terminology** and **Faithfulness**. On the

other hand, Human translator makes an excellent translation by changing the word "cortando" to "formando" which sound better in Spanish and creates a clear mental image for the reader. Without any misunderstanding.

**Table 129**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
the car <b>leaped</b> forward as if the impatient <b>horn</b> had <b>goosed it</b> .	el coche <b>dio un brinco</b> al frente como si el impaciente <b>bocinazo</b> hubiese sido una <b>palmada en el trasero</b> .	el coche <b>saltó</b> hacia delante como si el impaciente <b>claxon</b> <u>lo</u> <u>hubiera</u> <b>lo hubiera estimulado</b> .

In this fragment there are differences with chosen equivalents "dio un brinco" and "saltó". In this case both are correct, because it does not affect the meaning of source text. The meaning is maintained in both translations. The second difference is with the words "bocina" and "claxon". Here there is a greater discrepancy because in Chilean Spanish "bocina" is used more than "claxon", actually the word "claxon" is not used. That is why the equivalent "bocina" sounds more natural than "claxon". This causes the **Terminology** and **Usage** error.

The last error occurs with the verb "goosed" which informally means to push a person by hitting the buttocks. In this case, DeepL did not translate it well and made the errors of **Misunderstanding**, **Faithfulness** and **Literalness**. Additionally, there are two errors with the format and "lo hubiera" repeated twice causes a **Cohesion** and **Misunderstanding** errors.

**Table 130**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
<b>"Hey!"</b> Wayne Welland said, surprised. It was his final word.	— <b>¡Eh!</b> — exclamó Wayne Welland, sorprendido. Fue su última palabra.	<b>"¡Oye!"</b> dijo Wayne Welland, sorprendido. Fue su última palabra.

The error in this segment is very clear because the Spanish grammar has not been respected. DeepL translator kept the English grammar with the double quotes, causing a **Grammar** error.

On the other hand, the Human translator correctly changes the English grammar and uses two Em dashes.

**Table 131**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
The car accelerated directly <b>at the place</b> where the crowd of <b>job-seekers</b> was most tightly packed, and <b>hemmed in by the DO NOT CROSS tapes</b> .	El coche aceleró directamente <b>hacia el lugar</b> donde la multitud de <b>solicitantes de empleo</b> estaba más apiñada, <b>cercada</b> por la <b>cinta</b> con el rótulo <b>PROHIBIDO EL PASO</b> .	El coche aceleró directamente <b>en el lugar</b> donde la multitud de <b>buscadores de empleo</b> estaba más apretujada, y <b>escorada</b> por las <b>cintas</b> de <b>NO CRUZAR</b> .

In this case, the first error found is with the preposition "at". DeepL translated it as "en", but this is not correct because the preposition "en" in Spanish indicates the place or position. However, in this context "at" indicates the direction. On the other hand, Human translator used the correct equivalent of "at" and translated it as "hacia". This equivalent makes the sentence much clearer and the message is understood. Here the error of **Usage** has been made. The second difference is with the words "solicitantes" and "buscadores" regarding the translation made by DeepL, the equivalent is quite literal and sounds strange. The errors that Machine Translator has made are **Terminology** and **Literalness**.

The third error is generated by the phrasal verb "hem in". This phrasal verb means that a person or a place is surrounded by something. The equivalent used by Human translator is correct because the message of the source text is fully delivered. On the other hand, the term used by DeepL is totally incorrect because the word "escorar" is related to nautical. In other words, the source text message has not been respected, this causes **Grammar**, **Faithfulness**, and **Misunderstanding** errors.

In the final part, there are differences with the following words: official translation with "cinta" and "PROHIBIDO EL PASO". DeepL translator with the words "cintas" and "NO CRUZAR". These differences do not affect the meaning of the segment, because in both translations the meaning of the source text is respected.

**Table 132***Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Some of them tried to run, but <b>only</b> the ones at the <b>rear</b> of the crowd were able to <b>break free</b> . Those closer to the doors—the true Early Birds— <b>had no chance</b> .	Algunos intentaron echar a correr, pero <b>solo</b> lograron <b>escapar</b> aquellos situados al <b>fondo</b> . Quienes más cerca de las puertas se hallaban —los verdaderos madrugadores— <b>no tuvieron la menor oportunidad</b> .	Algunos intentaron huir, pero <b>sólo</b> los que se encontraban en la <b>parte trasera</b> de la multitud pudieron <b>liberarse</b> . <b>Los que</b> <b>Los que</b> estaban más cerca de las puertas, los verdaderos madrugadores, <b>no tenían ninguna posibilidad</b> .

According to Spanish grammar, the word "solo" whether it is an adverb with the meaning "solamente" or when it is an adjective with the meaning "estar solo" should not have a diacritical mark. Spanish grammar advises to never use a diacritical mark on this word. This error on DeepL's part causes the **Grammar** and **Diacritical Marks** errors. Regarding the word "rear" both translations are correct because both preserve the meaning of the source text.

On the other hand, the translation of the phrase "break free". In both translations, the meaning of the source text is respected. Human translator and Machine translator just used different equivalents. Then in the translation of DeepL there is a **Cohesion** and **Misunderstanding** error, due to the format of the source text. Regarding the phrase "los verdaderos madrugadores". The official translation is between two Em dashes, and DeepL translation is between two commas. Both translations are correct, because in Spanish grammar two Em dashes and two commas are used to enclose clarifications or explanations.

The last error is related to the verbs "tuvieron" and "tenían". Both verbs are in the past tense, but "tuvieron" is in the simple past tense and "tenían" is in the imperfect tense. The equivalent chosen by DeepL does not make sound natural, and being in the imperfect tense causes that the action keep moving. In contrast, the equivalent of the official translation sounds natural because the verb tense is in the past. The action was performed and finished in the past. The error made by DeepL is the **Verb form** error.

**Table 133***Holistic Approach for Google translation (Literary text)*

- Holistic Approach (Translation made by Google)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon	<input checked="" type="checkbox"/>			
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent	<input checked="" type="checkbox"/>			
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		<input checked="" type="checkbox"/>		

- Analytical Method (Translation made by Google)

**Table 134**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
An <b>elderly</b> fellow in line ahead of Augie	Un <b>hombre de cierta edad</b> , por delante de Augie en la cola	Un <b>anciano</b> en la fila delante de Augie

In this segment, the problem is in the term "elderly", because this word was translated by Google as "anciano". The Machine Translator did not solve the **Dysphemism** translation problem. Since, in Spanish the term "anciano" is very direct and can be a derogatory word depending on the context. Also, this term causes the **Terminology** error, due to the fact that an incorrect term was chosen. The human translator decided to use "hombre de cierta edad" which sound better.

**Table 135**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
"Is that a <b>Benz</b> ? It looks like a <b>Benz</b> ."	—¿Eso es un <b>Mercedes</b> ? Parece un <b>Mercedes</b> .	"¿Es eso un <b>benz</b> ? Parece un <b>Benz</b> ."

The first error is for the English quotation marks. Google translator keeps the English quotes and causes a **Grammar** error. In contrast, Human translator used an Em dash. In Spanish grammar, the Em dash is used for the intervention of the characters in a dialogue. The following errors are caused by the word "Benz" which is the brand of the car. This brand is known as Mercedes-Benz. In Spanish, it makes more sense, and it is natural to name it as Mercedes but not as Benz. Additionally, Google translator makes another error for not using capital letter with "Benz". The errors made are **Terminology**, **Literalness**, and **Capitalization**.

**Table 136**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
Augie <b>started</b> to say of course it was	Augie se <b>disponía</b> a decir que claro que lo era	Augie <b>empezó</b> a decir que por supuesto que lo era

In this sentence, the problem is the same as DeepL made. The only difference is that Google chose a synonym. The differences are with the words "disponía" and "empezó". These words have different meanings. "Disponía" means to be about to do something (it is unknown if the action was carried out). "Empezó" means that the action was carried out, and it started in the past. The equivalent chosen by the Human translator makes more sense, because it has a connection with what follows in the story. Since the character, Augie was unable to say what she was going to say because the Mercedes car ran over her. The errors in this sentence are **Literalness, Terminology** and **Verb form**.

**Table 137**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
you couldn't mistake a Mercedes's <b>HD headlamps</b>	los <b>faros de alta intensidad</b> de un Mercedes eran inconfundibles	no podías confundirte. Los <b>faros HD</b> de Mercedes

There are two errors in this part, the first one is because Google translator did not translate the "HD", this causes that the sentence is not fully understood. This happens because the acronym "HD" in Spanish is associated with high definition or better image quality. The errors that Google made here are **Literalness** and **Faithfulness**.

The second error happens due to the format of the source text. Because it was copied and pasted without any modification, this causes that Google translator to translate as if these two sentences were different sentences without correlation. Google tried to fix it with the second-person pronoun, but it still sounds unnatural when it is read it with the second sentence. This causes that Google made **Cohesion** and **Misunderstanding** errors.

**Table 138**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
then the driver of the car directly behind <b>the vague shape laid on his horn</b> —a long, impatient blast.	cuando el conductor del coche situado justo detrás de <b>la forma desdibujada del Mercedes tocó el claxon</b> : un bocinazo prolongado e impaciente.	luego el conductor del automóvil. directamente detrás de <b>la vaga forma puesta en su cuerno</b> —un largo, <b>explosión</b> impaciente.

In this segment, there are several errors made by Machine translator. Google translator is very literal with the translation of "the vague shape". In contrast to the Human translator whose translation is perfectly understood. The translation is confusing and unnatural to read, in other words, this causes the **Literalness** error. Also, there is a **Misunderstanding, Faithfulness,** and **Terminology** error with the phrase "puesta en su cuerno". In this sentence, the meaning of the source text is not being respected. Additionally, there is a **Grammar** error, due to the Em dash. Google kept the English grammar and did not change it to a correct diacritical mark that corresponds to the Spanish grammar. **Cohesion** and **Misunderstanding** errors were also performed. Because Google translator did not detect the format of the source text. Finally, **Literalness, Usage, Terminology,** and **Faithfulness** errors were made by Google with the word "explosión". Because it did not contribute to the sentence to be understood and caused the meaning of the source text to not be respected.

**Table 139**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
The <b>HD lights</b> flashed brighter than ever, <b>cutting</b> brilliant white cones through the suspended droplets of the fog	Los <b>faros de alta intensidad</b> brillaron más aún, <b>formando</b> resplandecientes conos blancos en las gotas en suspensión presentes en la niebla	Las <b>lucos HD</b> brillaron más que nunca, <b>cortando</b> conos blancos brillantes a través de las gotas suspendidas de la niebla

In this segment, there is an error with the word "HD". This abbreviation was not translated, which causes **Literalness** and **Faithfulness** errors. Because HD has another meaning in Spanish such as when an image has higher quality. So, the Machine translator omitted to translate this abbreviation and only transferred it as it is in the source text. The second error is found with the word "cutting". Since, Google translator literally translates the word "cutting" into Spanish. However, this causes the text to not fully understood and the meaning of the text is not transferred either. "Cortando conos blancos brillantes" is not understood, because at the beginning of the segment it talks about lights and then these lights cut white cones. This causes errors of **Literalness, Terminology** and **Faithfulness**.

**Table 140***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
the car <b>leaped</b> forward as if the impatient <b>horn</b> had <b>goosed it</b> .	el coche <b>dio un brinco</b> al frente como si el impaciente <b>bocinazo</b> hubiese sido una <b>palmada en el trasero</b> .	el auto <b>saltó</b> hacia adelante como si la <b>bocina</b> impaciente hubiera lo <b>gané</b> .

In this segment, there are two different equivalents in both translations. The equivalents used by Google translate were "saltó" and "bocina". These differences do not create a problem, because the meaning of the source text is being respected. The most remarkable error is the one that happens with the last fragment of the segment. The first error is regarding the format, because the Machine translator did not detect the format of the source text. This causes **Cohesion** and **Misunderstanding** errors. The second error is with the equivalent chosen for "goosed it". The equivalent chosen by Google translator was "lo gané". Here the meaning of the source text was not respected and even a totally wrong equivalent was used. The errors caused are **Faithfulness**, **Terminology**, and **Misunderstanding**.

**Table 141***Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
" <b>Hey!</b> " Wayne Welland said, surprised. It was <b>his final word</b> .	— <b>¡Eh!</b> — exclamó Wayne Welland, sorprendido. <b>Fue su última palabra</b> .	" <b>¡Oye!</b> " dijo Wayne Welland, sorprendido. <b>fue su final palabra</b> .

The errors in this segment are very clear because the Spanish grammar has not been respected. Google translator kept the English grammar with the double quotes causing a **Grammar** error. On the other hand, the Human translator correctly changes the English grammar and uses two Em dashes. The second error occurs due to the word "fue". This word goes after a period and according to Spanish grammar it should be capitalized. Google translator made **Grammar** and **Capitalization** errors. The third error occurs due to the format of the source text due to the fact that Machine translator did not detect it. It should be noted that the source text was copied and

pasted without any modification or intervention. The errors made are **Cohesion** and **Misunderstanding**.

**Table 142**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
The car accelerated directly <b>at the place</b> where the crowd of <b>job-seekers</b> was most tightly packed, and hemmed in by the <b>DO NOT CROSS tapes</b> .	El coche aceleró directamente <b>hacia el lugar</b> donde la multitud de <b>solicitantes de empleo</b> estaba <b>más apiñada</b> , cercada por la <b>cinta</b> con el rótulo <b>PROHIBIDO EL PASO</b> .	El auto aceleró directamente <b>en el lugar</b> donde la multitud de <b>buscadores de empleo</b> estaba <b>muy apretado</b> , y cercado por el <b>NO CRUZAR las cintas</b> .

In this case, the first error found is with the preposition "at". Google translated it as "en", but this is not correct because the preposition "en" in Spanish indicates the place or position. However, in this context "at" indicates the direction. Here the error of **Usage** has been made. The second difference is with the words "solicitantes" and "buscadores" regarding the translation made by Google, the equivalent is quite literal and sounds strange. The errors that Machine Translator has made are **Terminology** and **Literalness**. On the other hand, there are two errors made in "muy apretado". The first, it does not sound natural and can distract the readers and create confusion. The second, it is because the adverb "muy" is a non-comparative adverb that indicates a high level for an attribute. In contrast, the adverb "más" indicates a comparison of superiority between two terms. In addition, the word "multitud" modifies the word "apretado" in consequence it should have been in feminine form. The errors made by Google were **Usage**, **Part of Speech**, and **Syntax**.

The differences between both translations with "DO NOT CROSS tapes" do not affect the meaning of the source text. However, Google translation is very literal. For that reason, it made the **Literalness** error.

**Table 143**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
Some of them tried to run, but	Algunos intentaron echar a	Algunos de ellos trataron de

<p><b>only</b> the ones at the <b>rear</b> of the crowd were able to <b>break free</b>. Those closer to the doors—the true <b>Early Birds</b>—<b>had</b> no chance.</p>	<p>correr, pero <b>solo</b> lograron <b>escapar</b> aquellos situados <b>al fondo</b>. Quienes más cerca de las puertas se hallaban —<b>los verdaderos madrugadores</b>— no <b>tuvieron</b> la menor oportunidad.</p>	<p>correr, pero <b>sólo</b> los que estaban en la <b>parte trasera</b> de la multitud pudieron <b>liberarse</b>. Aquellos más cerca de las puertas, los verdaderos <b>Early Birds</b>, no <b>tenían</b> ninguna posibilidad.</p>
---	---	--

According to Spanish grammar, the word "solo" whether it is an adverb with the meaning "solamente" or when it is an adjective with the meaning "estar solo" should not have a diacritical mark. Spanish grammar advises to never use a diacritical mark on this word. This error on Google's part causes the **Grammar** and **Diacritical Marks** errors. Regarding the word "rear" both translations are correct, because both preserve the meaning of the source text. On the other hand, the translation of the phrase "break free". In both translations, the meaning of the source text is respected. Human translator and Machine translator just used different equivalents. Regarding the phrase "Early Birds". The official translation is between two Em dashes, and Google translation is between two commas. Both translations are correct, because in Spanish grammar two Em dashes and two commas are used to enclose clarifications or explanations. However, Google performed errors of **Omission**, **Terminology**, and **Faithfulness**. Because Google did not translate that part.

The last error made by Google is the **Verb form** error, and it is related to the verbs "tuvieron" and "tenían". Both verbs are in the past tense, but "tuvieron" is in the simple past tense and "tenían" is in the imperfect tense. The equivalent chosen by Google does not make sound natural, and being in the imperfect tense causes that the action keep moving. In contrast, the equivalent of the official translation sounds natural because the verb tense is in the past. The action was performed and finished in the past.

**Table 144***Holistic Approach for Yandex translation (Literary text)*

- Holistic Approach (Translation made by Yandex)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon	<input checked="" type="checkbox"/>			
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		<input checked="" type="checkbox"/>		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent	<input checked="" type="checkbox"/>			
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		<input checked="" type="checkbox"/>		

- Analytical Method (Translation made by Yandex)

**Table 145**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
An <b>elderly</b> fellow in line ahead of Augie	Un <b>hombre de cierta edad</b> , por delante de Augie en la cola	Un <b>anciano</b> en la fila delante de Augie

In this segment, the problem is in the term "elderly", because this word was translated by Yandex as "anciano". The Machine Translator did not solve the **Dysphemism** translation problem. Since, in Spanish the term "anciano" is very direct and can be a derogatory word depending on the context. Also, this term causes the **Terminology** error, due to the fact that an incorrect term was chosen. The human translator decided to use "hombre de cierta edad" which sound better.

**Table 146**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
"Is that a <b>Benz</b> ? It looks like a Benz."	—¿Eso es un <b>Mercedes</b> ? Parece un <b>Mercedes</b> .	" <b>Es que</b> un <b>Benz</b> ? Parece un <b>Benz</b> ."

There are several errors in this segment. The first one is for the English quotation marks. Machine translator keeps the English quotes and causes a **Grammar** error. In contrast, Human translator used an Em dash. In Spanish grammar, the Em dash is used for the intervention of the characters in a dialogue. Then, there is a **Cohesion** and **Misunderstanding** error because of the format. Since the source text was copied and pasted without any manipulation or intervention. In the same vine, the following errors are caused by the word "Benz" which is the brand of the car. This brand is known as Mercedes-Benz. In Spanish, it makes more sense, and it is natural to name it as Mercedes but not as Benz. The errors made are **Terminology**, and **Literalness**.

**Table 147***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
Augie <b>started</b> to say of course it was	Augie se <b>disponía</b> a decir que claro que lo era	Augie <b>comenzó</b> a decir, por supuesto que lo era

In this sentence, the big difference between Human translation and Yandex translation is with the words "disponía" and "comenzó". These words have different meanings. "Disponía" means to be about to do something (it is unknown if the action was carried out). "Comenzó" means that the action was carried out, and it started in the past. The equivalent chosen by the Human translator makes more sense, because it has a connection with what follows in the story. Since the character, Augie was unable to say what she was going to say because the Mercedes car ran over her. The errors in this sentence are **Literalness**, **Terminology** and **Verb form**.

**Table 148***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
you couldn't mistake a Mercedes's <b>HD headlamps</b>	los <b>faros de alta intensidad</b> de un Mercedes eran inconfundibles	no se podía confundir <u>un</u> Los <b>faros HD</b> de Mercedes

There are two errors in this part, the first one is because Yandex translator did not translate the "HD", this causes that the sentence is not fully understood. This happens because the acronym "HD" in Spanish is associated with high definition or better image quality. The errors that Yandex made here are **Literalness** and **Faithfulness**.

The second error happens due to the format of the source text. Because it was copied and pasted without any modification, this causes that Yandex translator to translate as if these two sentences were different sentences without correlation. This causes that Yandex made **Cohesion** and **Misunderstanding** errors.

**Table 149***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
then the driver of the car directly behind <b>the vague shape laid on his horn</b> —a long, impatient blast.	cuando el conductor del coche situado justo detrás de <b>la forma desdibujada del Mercedes tocó el claxon</b> : un bocinazo prolongado e impaciente.	luego el conductor del automóvil directamente detrás de <b>la vaga forma colocada en su cuerno</b> —un largo, explosión impaciente.

In this segment, there are several errors made by Machine translator. Yandex translator is very literal with the translation of "the vague shape". In contrast to the Human translator whose translation is perfectly understood. The translation is confusing and unnatural to read, in other words, this causes the **Literalness** error. Also, there is a **Misunderstanding, Faithfulness, and Terminology** error with the phrase "puesta en su cuerno". In this sentence, the meaning of the source text is not being respected. Also, there is a **Grammar** error, due to the Em dash. Yandex kept the English grammar and did not change it to a correct diacritical mark that corresponds to the Spanish grammar. **Cohesion** and **Misunderstanding** errors were also performed. Because Yandex translator did not detect the format of the source text. Finally, **Literalness, Usage, Terminology, and Faithfulness** errors were made by Yandex with the word "explosión". Because it did not contribute to the sentence to be understood and caused the meaning of the source text to not be respected.

**Table 150***Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
The <b>HD lights</b> flashed brighter than ever, <b>cutting</b> brilliant white cones through the suspended droplets of the fog	Los <b>faros de alta intensidad</b> brillaron más aún, <b>formando</b> resplandecientes conos blancos en las gotas en suspensión presentes en la niebla	Las <b>luces de alta definición</b> brillaron más que nunca, <b>cortando</b> conos blancos brillantes a través de las gotas suspendidas de la niebla

In this segment, there is an error with the equivalent "alta definicion" for the abbreviation "HD". In this case, Yandex decided to break the HD abbreviation down, but the translation was very

literal and causes the readers not follow the reading naturally. Machine translator translated from "High Definition", which causes **Literalness**, **Misunderstanding**, **Terminology**, and **Faithfulness** errors. The second error is found with the word "cutting". Since, Yandex translator literally translates the word "cutting" into Spanish. However, this causes the text to not fully understood and the meaning of the text is not transferred either. "Cortando conos blancos brillantes" is not understood, because at the beginning of the segment it talks about lights and then these lights cut white cones. This causes errors of **Literalness**, **Terminology** and **Faithfulness**.

**Table 151**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
the car <b>leaped</b> forward as if the impatient <b>horn</b> had <b>goosed it</b> .	el coche <b>dio un brinco</b> al frente como si el impaciente <b>bocinazo</b> hubiese sido una <b>palmada en el trasero</b> .	el coche <b>saltó</b> hacia adelante como si la <b>bocina</b> impaciente hubiera <b>ganso</b> .

In this segment, there are two different equivalent in both translations. The equivalent used by Yandex translate were "saltó" and "bocina". These differences do not create a problem, because the meaning of the source text is being respected. The most remarkable error is the one that happens with the last fragment of the segment. The first error is regarding the format, because the Machine translator did not detect the format of the source text. This causes **Cohesion** and **Misunderstanding** errors. The second error is with the equivalent chosen for "goosed it". Yandex made **Terminology** and **Misunderstanding** errors. Because the equivalent was chosen for the noun "goose" and not for the verb "goosed".

**Table 152**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
" <b>Hey!</b> " Wayne Welland said, surprised. It was <b>his final word</b> .	— <b>¡Eh!</b> — exclamó Wayne Welland, sorprendido. <b>Fue su última palabra</b> .	" <b>¡Oye!</b> " Wayne Welland dijo, sorprendido. Era <b>su final palabra</b> .

The errors in this segment are very clear because the Spanish grammar has not been respected. Yandex translator kept the English grammar with the double quotes causing a **Grammar** error. There is even another **Grammar** error, because there is no space after the quotes. The second error occurs due to the format of the source text, because Machine translator did not detect it. It should be noted that the source text was copied and pasted without any modification or intervention. The errors made are **Cohesion** and **Misunderstanding**.

**Table 153**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
The car accelerated directly <b>at the place</b> where the crowd of <b>job-seekers</b> was most tightly packed, and hemmed in by the <b>DO NOT CROSS tapes</b> .	El coche aceleró directamente <b>hacia el lugar</b> donde la multitud de <b>solicitantes de empleo</b> estaba <u>más apiñada, cercada</u> por la <b>cinta</b> con el rótulo <b>PROHIBIDO EL PASO</b> .	El coche aceleró directamente <b>en el lugar</b> donde la multitud de los <b>solicitantes de empleo</b> estaban <u>más apretados</u> , y <u>rodeados</u> por el <b>NO CRUCE las cintas</b> .

In this case, the first error found is with the preposition "at". Yandex translated it as "en", but this is not correct because the preposition "en" in Spanish indicates the place or position. However, in this context, "at" indicates the direction. Here the error of **Usage** has been made. Secondly, there are two errors made in "más apretados", the word "multitud" modifies the word "apretados" in consequence it should have been in feminine form. In addition, as "multitud" modifies "estaban más apretados" this should be in singular form, since it is talking about one crowd and not several crowds. The errors made by Yandex were **Usage** and **Syntax**. Finally, The differences between both translations with "DO NOT CROSS tapes" do not affect the meaning of the source text. However, Yandex translation is very literal. For that reason, it made the **Literalness** error.

**Table 154**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
Some of them tried to run, but only the ones at the <b>rear</b> of the crowd were able to <b>break free</b> .	Algunos intentaron echar a correr, pero solo lograron <b>escapar</b> aquellos situados <b>al</b>	Algunos de ellos intentaron correr, pero solo los que estaban en la

Those closer to the doors—the <b>true Early Birds</b> —had no chance.	<b>fondo</b> . Quienes más cerca de las puertas se hallaban — <b>los verdaderos madrugadores</b> — no <b>tuvieron</b> la menor oportunidad.	<b>retaguardia</b> de la multitud pudieron <b>liberarse</b> . Aquellos más cerca de las puertas— <b>los verdaderos Madrugadores</b> , no <b>tenían</b> ninguna posibilidad.
---	---	---

The first error is regarding the word "rear" both translations are correct, because both preserve the meaning of the source text. However, unlike the equivalents chosen by Google and DeepL. The Yandex equivalent sounds unnatural and out of place. The error made here is **Terminology**. On the other hand, the translation of the phrase "break free". In both translations, the meaning of the source text is respected. Human translator and Machine translator just used different equivalents. Regarding the phrase "los verdaderos madrugadores". The official translation is between two Em dashes, but Yandex translation is between one Em dash and one comma. This causes a **Grammar** error, because in Spanish grammar two Em dashes or two commas are used to enclose clarifications or explanations. In the same vein, there is an error with "Madrugadores" because it is the only capitalized word in the sentence. This causes a **Capitalization** error.

The last error made by Google is the **Verb form** error, and it is related to the verbs "tuvieron" and "tenían". Both verbs are in the past tense, but "tuvieron" is in the simple past tense and "tenían" is in the imperfect tense. The equivalent chosen by Yandex does not make sound natural, and being in the imperfect tense causes that the action keep moving. In contrast, the equivalent of the official translation sounds natural because the verb tense is in the past. The action was performed and finished in the past.

## Text #2

The following extract was retrieved from the book "I Wish You All the Best" by Mason Deaver. The sample consists of 136 words, and the official translation consists of 126 words. The novel follows a teenager who's kicked out of their house after coming out as nonbinary. The extract below is moments before the protagonist has been kicked out of their house. The protagonist's mother and the protagonists are talking about the movie they will see.

**Table 155**

*Parallel corpus of "I Wish You All the Best"*

Retrieved from	Corpus <i>I Wish You All the Best</i> (Mason Deaver)	Amount of words
<p><b>Source Text</b></p>	<p>Mom sets the last of the dishes on the <b>drying rack</b> just as I'm <b>stacking</b> the <b>Tupperware</b> in the <b>fridge</b>. "Are you sure you're <u>okay</u>? You didn't eat anything weird, did you?" Mom reaches up to touch my forehead again, but I manage to <b>avoid her</b>. "I promise, I'm totally fine." <b>Liar</b>. "If you say so." Mom carefully folds the dish towels by the <b>sink</b>. "<b>You still up</b> for the <b>movie</b>?" "Yeah, sure, I'll be there in a minute." "Maybe he won't make us watch <b>Home Alone</b> for the <b>twentieth time</b>," Mom mutters, mostly to herself I think. "It's a classic," I tease, and she smiles at me, grabbing the <b>little baggie of peppermint bark</b> she made a few days ago, before she disappears into the living room.</p>	<p>136</p>
<p><b>Target Text</b> official translation by Grupo Planeta, cross books</p>	<p>Mi madre coloca los últimos trastes en el <b>escurridor</b> mientras yo <b>guardo</b> los <b>recipientes</b> en el <b>refrigerador</b>. —¿Sí te sientes bien? No comiste nada extraño, ¿o sí? —Mi madre se acerca para volver a tocar mi frente, pero logro <b>esquivarla</b>. —Te lo prometo, me siento perfectamente bien. <b>Mentira</b>. —Si tú lo dices. —Mamá dobla con cuidado las toallas de la cocina al lado del <b>fregadero</b>—. <b>¿Todavía tienes ganas</b></p>	<p>126</p>

	<p>de ver la película?</p> <p>—Sí, claro. Dame un minuto.</p> <p>—Quizá no nos hará ver <b>Mi pobre angelito</b> por <b>vigésima ocasión</b> —susurra mi madre, creo que más que nada para ella misma.</p> <p>—Es un clásico —bromeo y ella me sonríe mientras agarra <b>la bolsita de chocolates de menta</b> que hizo hace unos días, antes de desaparecer hacia la sala.</p>	
<p><b>DeepL</b> Translation #2</p>	<p>Mamá pone los últimos platos en el <b>estante de secado</b> justo cuando estoy <b>apilando el Tupperware</b> en la <b>nevera</b>. "¿Seguro que estás bien? No has comido nada raro, ¿verdad?". Mamá se acerca para tocarme la frente de nuevo, pero consigo <b>evitarla</b>.</p> <p>"Lo prometo, estoy totalmente bien".</p> <p><b>Mentirosa.</b></p> <p>"Si tú lo dices". Mamá dobla cuidadosamente los paños de cocina junto al fregadero. "¿Aún te apuntas al <b>cine</b>?"</p> <p>"Sí, claro, voy en un momento".</p> <p>"Quizá no nos haga ver <b>Solo en casa</b> por <b>duodécima vez</b>", murmura mamá. vez", murmura mamá, creo que más bien para sí misma.</p> <p>"Es un clásico", bromeo, y ella me sonríe, cogiendo <b>la de menta</b> que hizo hace unos días, antes de desaparecer en el salón.</p> <p><b>antes de desaparecer en la sala de estar.</b></p>	<p><u><b>126</b></u></p>
<p><b>Google</b> Translate Translation #2</p>	<p>Mamá pone el último de los platos en la <b>rejilla de secado</b> justo cuando estoy <b>apilar el Tupperware</b> en la <b>nevera</b>. "¿Estás seguro de que estás <b>¿okey?</b> No comiste nada raro, ¿verdad? mamá se acerca para tocar mi frente de nuevo, pero logro <b>evitarla</b>.</p> <p>"Lo prometo, estoy totalmente bien".</p> <p><b>Mentiroso.</b></p> <p>"Si tú lo dices." Mamá dobla con cuidado los paños de cocina por la <b>pileta</b>. "¿<b>Todavía estás listo</b> para la película?"</p> <p>"Sí, claro, estaré allí en un minuto".</p> <p>"Tal vez no nos haga ver <b>Solo en casa por veinte años</b>. <b>la décima vez</b> —murmura mamá, más que nada para sí misma, creo.</p> <p>"Es un clásico", bromeo, y ella me sonríe, agarrando <b>el pequeña bolsita de corteza de menta</b> que hizo hace unos días, antes ella desaparece en la sala de estar.</p>	<p><u><b>131</b></u></p>
<p><b>Yandex</b></p>	<p>Mamá pone el último de los platos en el <b>tendedero</b> justo cuando estoy</p>	<p><u><b>130</b></u></p>

<p><b>Translate</b></p> <p>Translation #2</p>	<p><b>apilar los Tupperware en la nevera.</b> "¿Estás seguro de que eres <b>ok?</b> No comiste nada raro, ¿verdad?" Mamá se levanta para tocarme la frente de nuevo, pero me las arreglo para <b>evitarla.</b></p> <p>"Lo prometo, estoy totalmente bien."</p> <p><b>Mentiroso.</b></p> <p>- Si tú lo dices. "<b>Mamá</b> dobla cuidadosamente los paños de cocina por el lavabo. "<b>¿Todavía estás listo</b> para la película?"</p> <p>"Sí, claro, estaré allí en un minuto."</p> <p>"Tal vez no nos haga mirar a <b>Casa Solos por la noche-es hora de ti</b>", murmura mamá, principalmente para sí misma, creo.</p> <p>"Es un clásico", bromeo, y ella me sonrío, agarrando <b>el bolsita de corteza de menta</b> que hizo hace unos días, antes de ella desaparece en la sala de estar.</p>	
---	---	--

**Table 156**

*Holistic Approach for DeepL translation (Literary text)*

- Holistic Approach (Translation made by DeepL)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations		<input checked="" type="checkbox"/>		
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon	<input checked="" type="checkbox"/>			
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		☑		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent		☑		
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		☑		

- Analytical Method (Translation made by DeepL)

**Table 157**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
Mom sets the last of the dishes on the <b>drying rack</b> just as I'm <b>stacking</b> the <b>Tupperware</b> in the <b>fridge</b> . "Are you sure you're okay? You <b>didn't eat</b> anything weird, did you?" Mom reaches up to touch my forehead again, but I manage to <b>avoid her</b> .	Mi madre coloca los últimos trastes en el <b>escurridor</b> mientras yo <b>guardo</b> los <b>recipientes</b> en el <b>refrigerador</b> . —¿Sí te sientes bien? No <b>comiste</b> nada extraño, ¿o sí? —Mi madre se acerca para volver a tocar mi frente, pero logro <b>esquivarla</b> .	Mamá pone los últimos platos en el <b>estante de secado</b> justo cuando estoy <b>apilando</b> el <b>Tupperware</b> en la <b>nevera</b> . "¿Seguro que estás bien? No <b>has comido</b> nada raro, ¿verdad?". Mamá se acerca para tocarme la frente de nuevo, pero consigo <b>evitarla</b> .

In the first part, DeepL translator performed a literal translation of the term "drying rack". This causes **Literalness**, **Terminology**, and **Usage** errors.

The second error is with the verb "stack". Human translator permormed **Modulation** and **Transposition** technique, since it totally changes the equivalent and used "guardar". Machine translator literally translated the term in English. The error made is **Literalness**. The next error

made by Machine translation is concerning the term "Tupperware". DeepL did not translate the term into Spanish. This causes the errors of **Omission**, **Terminology**, and **Faithfulness**. In the same vein, there is a difference with the word "fridge". Machine translator used the equivalent "nevera". This term is mostly used in Spain but not for Spanish speakers of Latin American. The errors made by DeepL are **Terminology**, **Literlaness**, and **Usage**.

On the other hand, there is an error with the verb tense used. In Human translation the past simple tense was used, but DeepL used the present perfect tense. This causes an error because that verb tense is unnatural for Spanish speakers from Latin America. The error made by DeepL is **Verb form**. The last error is with the translation of "avoid her". In this case "esquivar" and "evitar" are synonyms, however, the word "evitar" it can be given a different meaning. The error made by DeepL is **Terminology**.

It is important to mention that there is an error with the English quotation marks. DeepL translator keeps the English quotes and causes a **Grammar** error. In contrast, Human translator used an Em dash. In Spanish grammar, the Em dash is used for the intervention of the characters in a dialogue.

**Table 158**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
"I promise, I'm totally fine." <b>Liar.</b>	—Te lo prometo, me siento perfectamente bien.	"Lo prometo, estoy totalmente bien".
"If you say so." Mom carefully folds the dish towels by the sink. "You still up for the movie?"	<b>Mentira.</b> —Si tú lo dices. —Mamá dobla con cuidado las toallas de la cocina al lado del fregadero—.	<b>Mentirosa.</b> "Si tú lo dices". Mamá dobla cuidadosamente los paños de cocina junto al
"Yeah, sure, I'll be there in a minute."	¿Todavía tienes ganas de ver la <b>película</b> ? —Sí, claro. Dame un minuto.	fregadero. "¿Aún te apuntas al <b>cine</b> ?" "Sí, claro, voy en un momento".

The first error detected is regarding the English quotation marks. In this segment, this error is made multiple times. The Machine translator did not correctly change the English quotation marks for the correct Spanish equivalent, the Em dash. This causes the **Grammar** error.

The second error is related to the word "liar". Human translator translated the word as a "lie",

however Machine translator translated it in feminine gender. DeepL assumed the gender of the main character. This causes the **Terminology** and **Misunderstanding** error.

The last error is regarding the word "cine". The equivalent chosen by DeepL create another meaning in the sentence since "cine" means cinema a not a movie. The errors made by DeepL are **Misunderstanding** and **Faithfulness**.

**Table 159**

*Analytical Method: parallel corpus of DeepL translation*

Source Sentence	Official Translation	DeepL translation
"Maybe he won't make us watch <b>Home Alone</b> for the <b>twen-tieth</b> time," Mom mutters, mostly to herself I think.	—Quizá no nos hará ver <b>Mi pobre angelito</b> por <b>vigésima</b> ocasión —susurra mi madre, creo que más que nada para ella misma.	"Quizá no nos haga ver <b>Solo en casa</b> por <b>duodécima</b> vez", <u>murmura mamá.</u>
"It's a classic," I tease, and she smiles at me, grabbing <b>the little baggie of peppermint bark</b> she made a few days ago, before <u>she disappears into the living room.</u>	—Es un clásico —bromeo y ella me sonríe mientras agarra <b>la bolsita de chocolates de menta</b> que hizo hace unos días, antes de desaparecer hacia la sala.	"Es un clásico", bromeo, y ella me sonríe, cogiendo <b>la de menta</b> que hizo hace unos días, <u>antes de desaparecer en el salón.</u> <u>antes de desaparecer en la sala de estar.</u>

The first error found is regarding the quotation marks. This error has been repeated throughout the entire translation. This error occurs because the quotation marks must be changed to Em dashes. DeepL translator made a **Grammar** error.

The second error is regarding the translation of the movie called "home alone". The difference is that "solo en casa" is the translation used in Spain. Instead, "mi pobre angelito" is the translation used in Latin American Spanish. The Human translator performed a translation procedure called Recognized translation. The errors made by DeepL are **Literalness** and **Misunderstanding**.

The third error is regarding the equivalent "duodécima". The Machine translator did not respect the meaning of the source text, because the source text refers to the number twenty and not twelve. The errors made by DeepL are **Misunderstanding** and **Faithfulness**.

The following errors are due to the format of the source text. These errors are reflected in

"murmura mamá" and "antes de desaparecer". These phrases are repeated twice and could create confusion for the readers. The errors made by DeepL are **Misunderstanding** and **Cohesion**.

The last error is regarding "la de menta". In this case the meaning of the source text has not been respected, because only "peppermint" was translated but "bark" was not translated. DeepL made **Omission**, **Faithfulness**, and **Misunderstanding** errors.

**Table 160**

*Holistic Approach for Google translation (Literary text)*

- Holistic Approach (Translation made by Google)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations	<input checked="" type="checkbox"/>			
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon	<input checked="" type="checkbox"/>			
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		☑		
2.2 Demonstrate ability to ensure that the target language is appropriately organised, cohesive, and coherent	☑			
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		☑		

- Analytical Method (Translation made by Google)

**Table 161**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
Mom sets the last of the dishes on the <b>drying rack</b> just as I'm <b>stacking</b> the <b>Tupperware</b> in the <b>fridge</b> . "Are you sure you're <b>okay</b> ? You didn't eat anything weird, did you?" Mom reaches up to touch my forehead again, but I manage to <b>avoid her</b> .	Mi madre coloca los últimos trastes en el <b>escurridor</b> mientras yo <b>guardo</b> los <b>recipientes</b> en el <b>refrigerador</b> . —¿Sí te sientes <b>bien</b> ? No comiste nada extraño, ¿o sí? —Mi madre se acerca para volver a tocar mi frente, pero logro <b>esquivarla</b> .	Mamá pone el último de los platos en la <b>rejilla de secado</b> justo cuando estoy <b>apilar</b> el <b>Tupperware</b> en la <b>nevera</b> . "¿Estás seguro de que estás <b>okey</b> ? No comiste nada raro, ¿verdad? mamá se acerca para tocar mi frente de nuevo, pero logro <b>evitarla</b> .

In the first part, Google translator performed a literal translation of the term "drying rack". This causes **Literalness**, **Terminology**, and **Usage** errors.

The second error is with the verb "stack". Machine translator literally translated the term in English, and the error made is **Literalness**. The next error made by Machine translation is concerning the term "Tupperware". Google did not translate the term into Spanish. This causes

the errors of **Omission**, **Terminology**, and **Faithfulness**. In addition, there is a difference with the word "fridge". Machine translator used the equivalent "nevera". This term is mostly used in Spain, but not for Spanish speakers of Latin American. The errors made by Google are **Terminology**, **Literalness**, and **Usage**.

Similarly, there is an error with the equivalent "okey". Google translator used a wrong equivalent, since it is always preferable to use the Spanish version. The error made by Google is **Terminology**. The last error is with the translation of "avoid her". In this case "esquivar" and "evitar" are synonyms, however, the word "evitar" it can be given a different meaning. The error made by DeepL is **Terminology**.

It is important to emphasize that, as well as the other Machine translations, there is an error in with the English quotation marks. Google translator keeps the English quotes and causes a **Grammar** error. In contrast, Human translator used an Em dash. In Spanish grammar, the Em dash is used for the intervention of the characters in a dialogue.

**Table 162**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
"I promise, I'm totally fine." <b>Liar.</b>	—Te lo prometo, me siento perfectamente bien.	"Lo prometo, estoy totalmente bien".
"If you say so." Mom carefully folds the dish towels by the <b>sink.</b> "You still up for the movie?"	<b>Mentira.</b> —Si tú lo dices. —Mamá dobla con cuidado las toallas de la cocina al lado del <b>fregadero</b> —.	<b>Mentiroso.</b> "Si tú lo dices." Mamá dobla con cuidado los paños de cocina por la <b>pileta.</b>
"Yeah, sure, I'll be there in a minute."	¿ <b>Todavía tienes ganas</b> de ver la película? —Sí, claro. Dame un minuto.	¿ <b>Todavía estás listo</b> para la película?" "Sí, claro, estaré allí en un minuto".

The first error detected is regarding the English quotation marks. In this segment, this error is made multiple times. The Machine translator did not correctly change the English quotation marks for the correct Spanish equivalent, the Em dash. This causes the **Grammar** error.

The second error is regarding the word "mentiroso". This equivalent is the literal translation of the word in English and is attributed to a lying person. The problem is that it did not sound natural, and it makes that both sentences seem unrelated. The errors made by Google are

**Terminology and Misunderstanding.** The following error is caused by the word "pileta". The error is caused by the word "pileta", this word is related to a fountain and not to a sink. The meaning of the source text was not respected, for that reason the errors made by Machine translator are **Faithfulness, Misunderstanding, and Terminology.**

The last error is related with "todavía estás listo" this translation sounds unnatural and may cause confusion to the readers. The errors made by Google are **Faithfulness and Misunderstanding.**

**Table 163**

*Analytical Method: parallel corpus of Google translation*

Source Sentence	Official Translation	Google translation
"Maybe he won't make us watch <b>Home Alone</b> for the <b>twen-tieth</b> time," Mom mutters, mostly to herself I think.	—Quizá no nos hará ver <b>Mi pobre angelito</b> por <b>vigésima</b> ocasión —susurra mi madre, creo que más que nada para ella misma.	"Tal vez no nos haga ver <b>Solo en casa</b> por <b>veinte años</b> . la <b>décima vez</b> —murmura mamá, más que nada para sí misma, creo.
"It's a classic," I tease, and she smiles at me, grabbing <b>the little baggie of peppermint bark</b> she made a few days ago, before she disappears into the living room.	—Es un clásico —bromeo y ella me sonríe mientras agarra <b>la bolsita de chocolates de menta</b> que hizo hace unos días, antes de desaparecer hacia la sala.	"Es un clásico", bromeo, y ella me sonríe, agarrando <b>el pequeña bolsita de corteza de menta</b> que hizo hace unos días, antes ella desaparece en la sala de estar.

The first error found is regarding the quotation marks. This error has been repeated throughout the entire translation. This error occurs because the quotation marks must be changed to Em dashes. Google translator made a **Grammar** error.

The second error is regarding the translation of the movie called "home alone". The difference is that "solo en casa" is the translation used in Spain. Instead, "mi pobre angelito" is the translation used in Latin American Spanish. The errors made by Google are **Literalness and Misunderstanding.**

The third error is regarding the equivalents "veinte años" and "décima". The Machine translator did not respect the meaning of the source text, because the source text refers to the number twenty and not twelve. The errors made by DeepL are **Misunderstanding and Faithfulness.**

In addition, Google translator made an error due to the format. Machine translator did not detect the format of the source text, this causes **Misunderstanding** and **Cohesion** errors.

The last error is regarding "el pequeña bolsita de corteza de menta". In this case, Google translator literally translated the phrase of the source text. Also, it made an error with the determiner "el", Google wrongly translated the gender of the article. Machine translator made **Literalness**, and **Grammar** errors.

**Table 164**

*Holistic Approach for Yandex translation (Literary text)*

- Holistic Approach (Translation made by Yandex)

LO1: Be able to produce translation of a general text that shows accurate transfer of information

Assessment criteria	Fail	Pass	Merit	Distinction
1.1 Demonstrate accurate transfer of information without omissions, additions, distortions or misinterpretations	<input checked="" type="checkbox"/>			
1.2 Apply knowledge, understanding and use of semi-specialised terminology, vocabulary and any jargon	<input checked="" type="checkbox"/>			
1.3 Demonstrate accurate transfer of subsidiary information (names, titles, dates and figures) as well as register and tone from the source language into the target language		<input checked="" type="checkbox"/>		

LO2: Be able to produce a translation of a general text that is grammatically sound, cohesive and coherent in the target language

Assessment criteria	Fail	Pass	Merit	Distinction
2.1 Demonstrate ability to produce a translation in line with norms of grammar and syntax within the target language		☑		
2.2 Demonstrate ability to ensure that the target language is appropriately organized, cohesive, and coherent	☑			
2.3 Produce a translation that conforms to the conventions of the target language (orthography, punctuation, accentuation, etc.)		☑		

- Analytical Method (Translation made by Yandex)

**Table 165**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
Mom sets the last of the dishes on the <b>drying rack</b> just as I'm <b>stacking</b> the <b>Tupperware</b> in the <b>fridge</b> . "Are you sure you're okay? You didn't eat anything weird, did you?" Mom reaches up to touch my forehead again, but I manage to <b>avoid her</b> .	Mi madre coloca los últimos trastes en el <b>escurridor</b> mientras yo <b>guardo</b> los <b>recipientes</b> en el <b>refrigerador</b> . —¿Sí te sientes bien? No comiste nada extraño, ¿o sí? —Mi madre se acerca para volver a tocar mi frente, pero logro <b>esquivarla</b> .	Mamá pone el último de los platos en el <b>tendedero</b> justo cuando estoy <b>apilar</b> los <b>Tupperware</b> en la <b>nevera</b> . "¿Estás seguro de que <b>eres ok?</b> No comiste nada raro, ¿verdad?" Mamá se levanta para tocarme la frente de nuevo, pero me las arreglo para <b>evitarla</b> .

In the first part, Yandex translator performed a wrong translation of the term "drying rack". This causes **Misunderstanding** and **Terminology** errors.

The second error is with the verb "stack". Human translator performs **Modulation** and **Transposition** technique, since it totally changes the equivalent and used "guardar". Machine

translator literally translated the term in English. The error made is **Literalness**. The next error made by Machine translation is concerning the term "Tupperware". Yandex did not translate the term into Spanish. This causes the errors of **Omission**, **Terminology**, and **Faithfulness**. In the same vein, there is a difference with the word "fridge". Machine translator used the equivalent "nevera". This term is mostly used in Spain but not for Spanish speakers of Latin American. The errors made by Yandex are **Terminology**, **Literalness**, and **Usage**.

On the other hand, there is an error with the format but also for the chosen equivalent for "okay". Therefore, Yandex translated the verb "to be" as "ser" instead of "estar". As mentioned, Yandex translator used a wrong equivalent for the word "okay", since it is always preferable to use the Spanish version. The error made by Yandex is **Terminology** and **Verb form**. The last error is with the translation of "avoid her". In this case "esquivar" and "evitar" are synonyms, however, the word "evitar" it can be given a different meaning. The error made by Yandex is **Terminology**.

Lastly, there is an error with the English quotation marks. Yandex translator keeps the English quotes and causes a **Grammar** error.

**Table 166**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
"I promise, I'm totally fine." <b>Liar.</b>	—Te lo prometo, me siento perfectamente bien.	"Lo prometo, estoy totalmente bien."
"If you say so." Mom carefully folds the dish towels by the <b>sink</b> . "You still up for the movie?"	<b>Mentira.</b> —Si tú lo dices. —Mamá dobla con cuidado las toallas de la cocina al lado del <b>fregadero</b> —.	<b>Mentiroso.</b> - Si tú lo dices." <b>Mamá</b> dobla cuidadosamente los paños de cocina por el <b>lavabo</b> .
"Yeah, sure, I'll be there in a minute."	<b>¿Todavía tienes ganas</b> de ver la película? —Sí, claro. Dame un minuto.	<b>"¿Todavía estás listo</b> para la película?" "Sí, claro, estaré allí en un minuto."

The first error detected is regarding the English quotation marks. In this segment, this error is made multiple times. The Machine translator did not correctly change the English quotation marks for the correct Spanish equivalent, the Em dash. This causes the **Grammar** error. There is also another error related to grammar, because in the sentence "mamá dobla cuidadosamente

los paños" it is preceded by a period. However, there is no space after this period. This causes a **Punctuation** error.

The second error is regarding the word "mentiroso". This equivalent is the literal translation of the word in English and is attributed to a lying person. The problem is that it did not sound natural, and it makes that both sentences seem unrelated. The errors made by Yandex are **Terminology** and **Misunderstanding**. The last error is related with "todavía estás listo" this translation sounds unnatural and may cause confusion to the readers. The errors made by Yandex are **Faithfulness** and **Misunderstanding**.

**Table 167**

*Analytical Method: parallel corpus of Yandex translation*

Source Sentence	Official Translation	Yandex translation
"Maybe he won't make us watch <b>Home Alone</b> for the <b>twentieth</b> time," Mom mutters, <b>mostly</b> to herself I think.	—Quizá no nos hará ver <b>Mi pobre angelito</b> por vigésima ocasión —susurra mi madre, creo que <b>más que nada</b> para ella misma.	"Tal vez no nos haga mirar a <b>Casa Solos</b> por <b>la noche-es hora de ti</b> ", murmura mamá, <b>principalmente</b> para sí misma, creo.
"It's a classic," I tease, and she smiles at me, grabbing <b>the little baggie of peppermint bark</b> she made a few days ago, before she disappears into the living room.	—Es un clásico —bromeo y ella me sonríe mientras agarra <b>la bolsita de chocolates de menta</b> que hizo hace unos días, antes de desaparecer hacia la sala.	"Es un clásico", bromeo, y ella me sonríe, agarrando <b>el bolsita de corteza de menta</b> que hizo hace unos días, antes <b>de ella</b> desaparece en la sala de estar.

The first error found is regarding the quotation marks. This error has been repeated throughout the entire translation. This error occurs because the quotation marks must be changed to Em dashes. Machine translator made a **Grammar** error.

The second error is regarding the translation of the movie called "home alone". Machine translator made a literal translation, this causes an unnatural reading. It also creates confusion in the readers because the name in of that movie is popularly known as "mi pobre angelito". The errors made by Yandex are **Literalness**, **Faithfulness**, and **Misunderstanding**.

The third error is regarding the equivalent "la noche es hora de ti". The Machine translator did not respect the meaning of the source text and performed an unnatural translation. The errors

made by Yandex are **Misunderstanding** and **Faithfulness**.

The fourth error is regarding "el bolsita de corteza de menta". In this case, Ynadex translator literally translated the phrase of the source text. Also, it made an error with the determiner "el" and it wrongly translated the gender of the article. The errors made by Yandex are **Literalness**, and **Grammar**.

The last error occurs in the last part of the segment. Yandex made an unnatural translation when it translated the pronoun "she". Because it was known from the context, that the main character was referring to his mother. The error made by Yandex is **Literalness**.

**Table 168***ATA errors and their frequency (Literary text)*

- Summary

Literary Texts						
Types of error	Google Translate		DeepL		Yandex	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Addition	0	0	0	0	0	0
Ambiguity	0	0	0	0	0	0
Capitalization	2	2.47	0	0	1	1.35
Cohesion	5	6.17	5	7.14	5	6.76
Diacritical Marks	1	1.24	1	1.43	0	0
Faithfulness	11	13.58	10	14.29	9	12.16
Faux Ami	0	0	0	0	0	0
Grammar	9	11.11	8	11.43	9	12.16
Illegibility	0	0	0	0	0	0
Indecision	0	0	0	0	0	0
Literalness	14	17.28	12	17.14	12	16.22
Misunderstanding	12	14.81	13	18.57	13	17.57
Omission	2	2.47	2	2.86	1	1.35
Punctuation	0	0	0	0	1	1.35
Register	0	0	0	0	0	0
Spelling	0	0	0	0	0	0
Style	0	0	0	0	0	0
Syntax	1	1.24	0	0	1	1.35
Terminology	16	19.75	12	17.14	15	20.27
Text Type	0	0	0	0	0	0
Unfinished	0	0	0	0	0	0

Usage	5	6.17	4	5.71	4	5.41
Verb Tense	2	2.47	3	4.29	3	4.05
Word Form Part of Speech	1	1.24	0	0	0	0

For each machine translation (Google, DeepL and Yandex) errors were counted and their mean frequency calculated. Having as a result that in the literary texts, among the 24 types of errors considered for this research and delivered by the ATA. Google between the two texts analyzed committed 12 types of errors, whose order in accordance with their frequency is as follows: **Terminology** (20%), **Literalness** (17%), **Misunderstanding** (15%), **Faithfulness** (14%), **Grammar** (11%), **Cohesion** (6%), **Usage** (6%), **Capitalization** (2%), **Omission** (2%), **Verb tense** (2%), **Diacritical Marks** (1%), and **Syntax** (1%). In this way, Google has a total of 81 errors committed between the two literary texts. For its part, DeepL between the two texts analyzed committed 10 types of errors, being their frequency from highest to lowest as: **Misunderstanding** (19%), **Literalness** (17%), **Terminology** (17%), **Faithfulness** (14%), **Grammar** (11%), **Cohesion** (7%), **Usage** (6%), **Verb Tense** (4%), **Omission** (3%), and **Diacritical Mark** (1%). In this way, DeepL has a total of 70 errors committed between the two literary texts. Finally, Yandex between the two texts analyzed committed 12 types of errors, whose frequencies are: **Terminology** (20%), **Misunderstanding** (18%), **Literalness** (16%), **Grammar** (12%), **Faithfulness** (12%), **Cohesion** (7%), **Usage** (5%), **Verb Tense** (4%), **Capitalization** (1%), **Omission** (1%), **Punctuation** (1%), and **Syntax** (1%). In this way, Yandex has a total of 74 errors committed between the two literary texts. Taking into account the information from the holistic and analytical analysis, it is concluded that in the literary texts the machine translator that had a better performance translating is the DeepL translator. However, Yandex translator and Google translator showed a similar performance. Although, DeepL is the one that stands out with better results, compared to Google and Yandex, that did not leave it without errors. In literary texts, in general, none of the three translators stand out. Due to the fact that three translators made serious errors, such as: omission, terminology, faithfulness, cohesion, literalness and misunderstanding. These types of errors are serious because they affect and distort the reader's understanding of the target text.

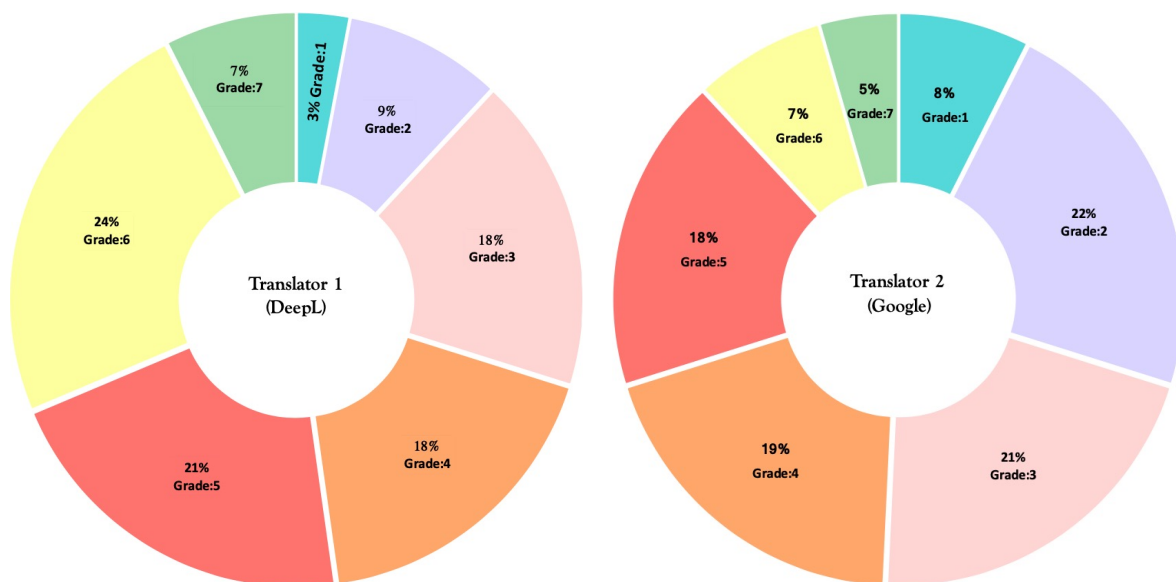
#### 4.7 Survey Analysis

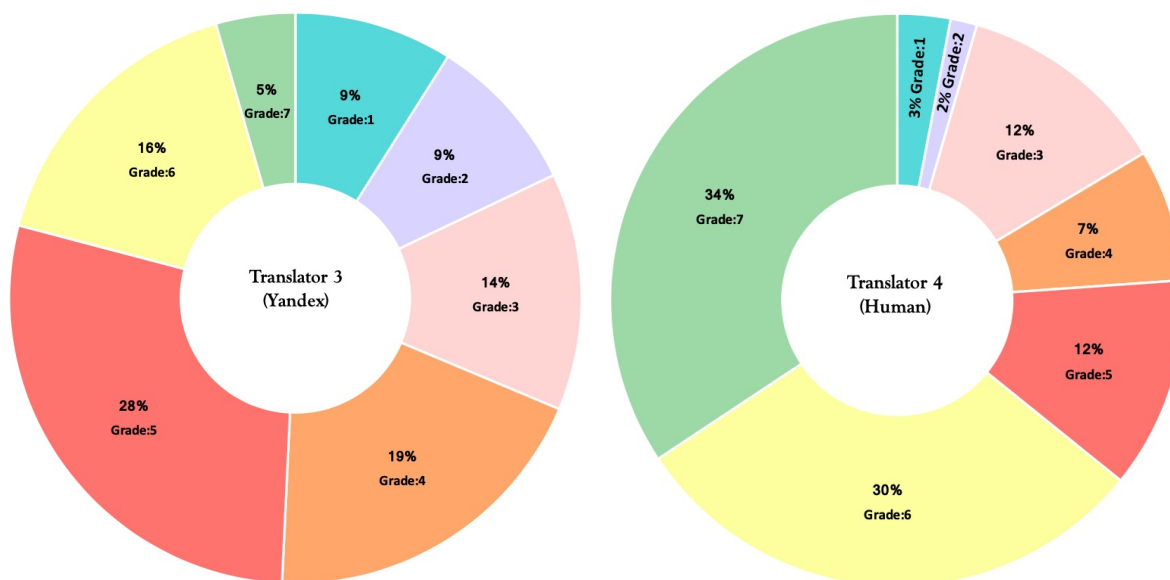
The multiple-item survey method, based on the Likert scale, was applied to 67 students of different levels of study (from 102 to 500) of the Translation career of the Universidad de Atacama. The objective was to know their perception of machine translators. The survey contained 6 phases with questions regarding the texts analyzed in the “Analysis Of The Corpus” (see section 4.2 to 4.6) and was carried out using Google form online application. The following results were based on the rating of the 4 translations on a scale of 1 to 7, where 1 is bad, 4 is the minimum-accepted grade and 7 is excellent and complemented by the results of the other questions asked in the survey (the results of the complete survey are in the Annex).

#### Informative Text

**Figure 4**

*Students rating of the four translators for informative texts*



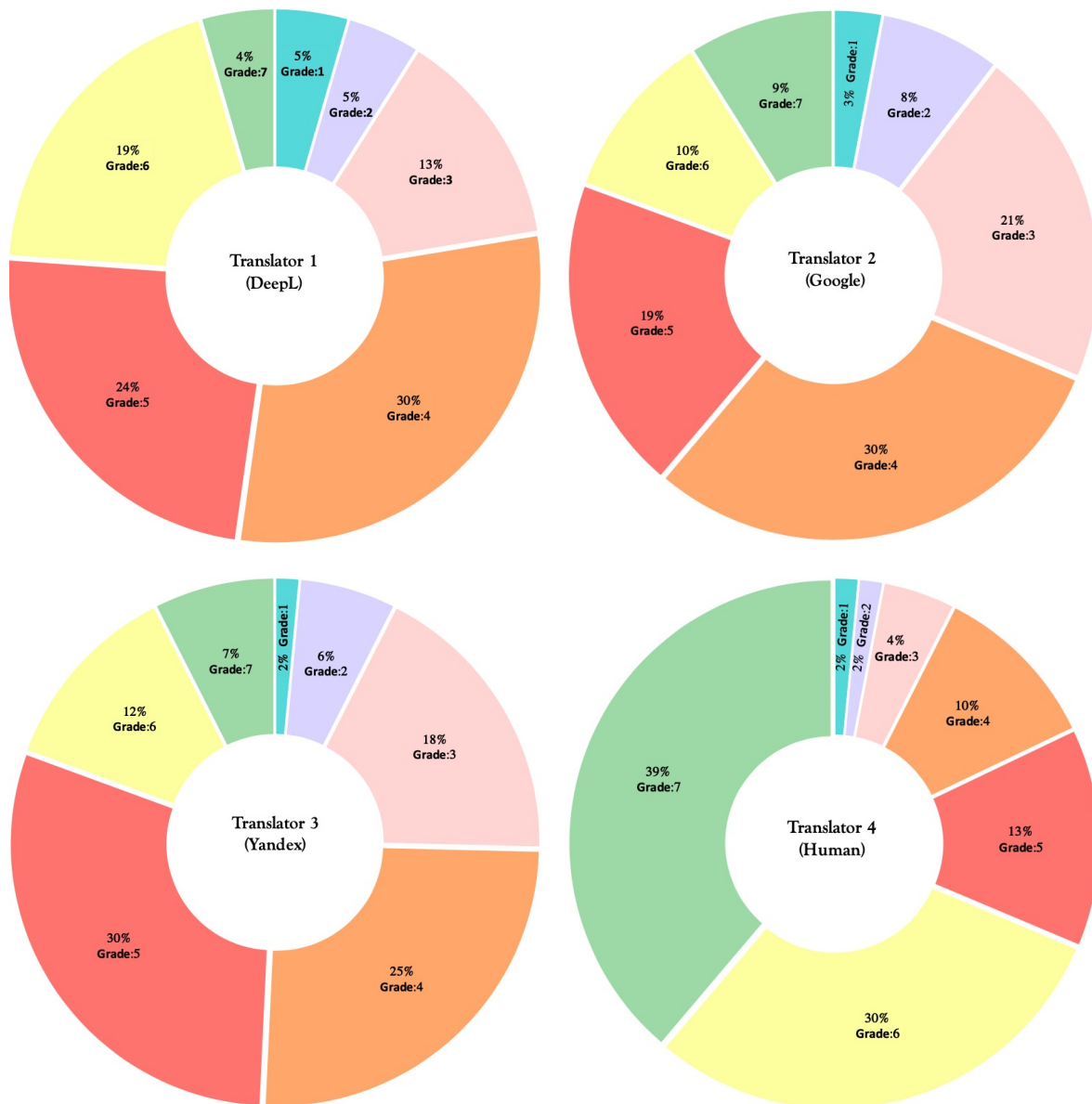


Each of the translators received a grade ranging from 1 to 7. Google was the worst rated translation with a grade of 2 (22%), followed by Yandex with a grade of 5 (28%), then DeepL with a grade of 6 (24%) and finally human translation with a grade of 7 (34%). Having results that are consistent with respect to the question "Was the source text message transferred correctly?" Google, who was the worst evaluated, obtained a result of 25% in the alternative disagree and 28% in the option neither agree nor disagree. Which shows that due to the errors that were present in the translation, the message could not be transferred with the same impact as the source text. On the other hand, DeepL Translator and Yandex Translator, showed a better performance, as their grades are above 4, which is the minimum-accepted grade, showing that the errors made by these programs did not affect the message too much. Reflected in the percentages of the alternative corresponding to persons agreeing that the transfer of the message was successful (DeepL 52%, Yandex 39%). Regarding the analysis carried out in this research (see section 4.3), the results vary a little from the perception of the respondents, since for the segment chosen and shown in the survey, DeepL was one of the programs that for this segment presented fewer errors and better performance; however, Google and Yandex present similar errors, so their evaluation should have been similar.

## Technical Text

**Figure 5**

*Students rating of the four translators for technical texts*



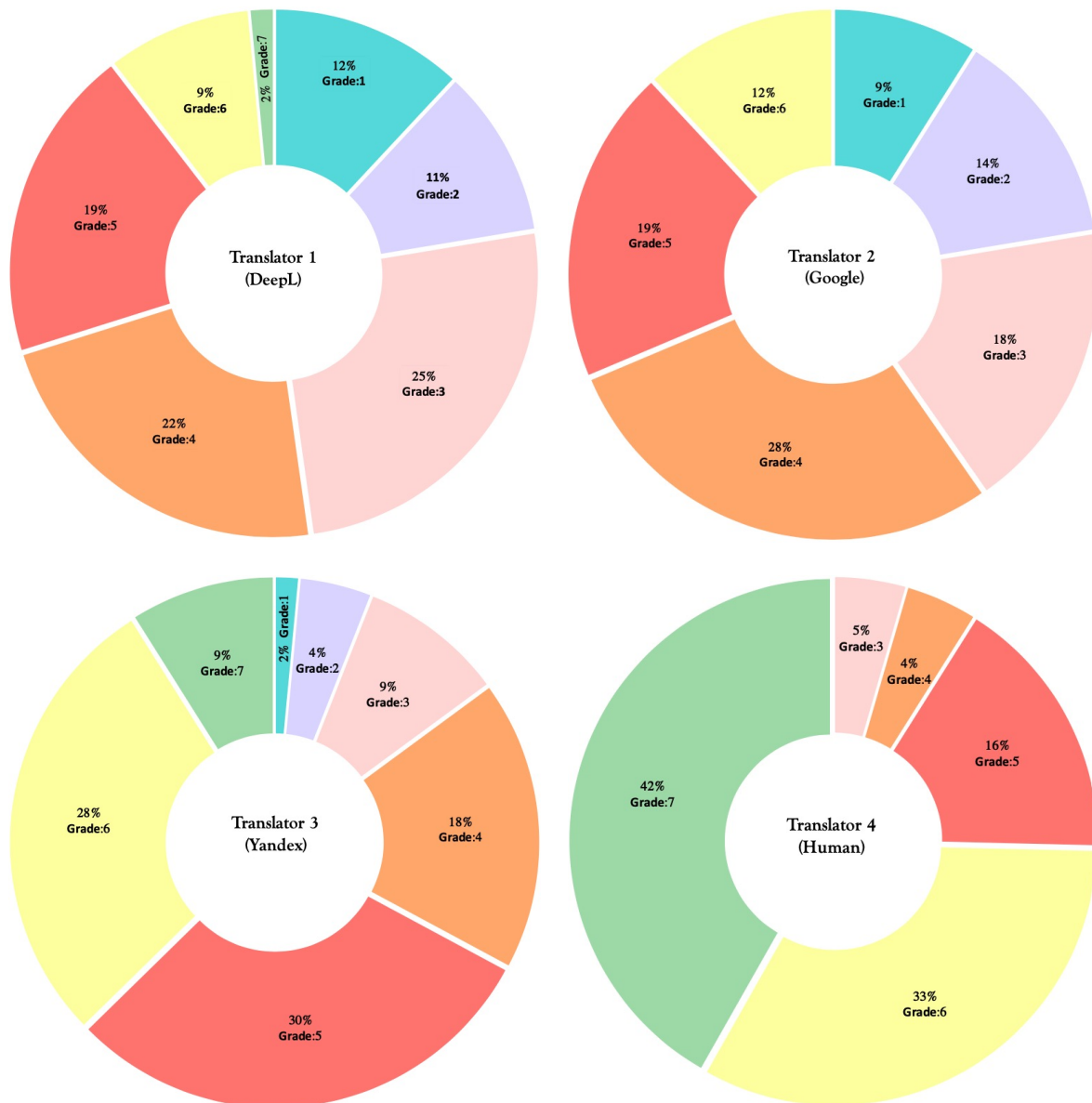
Each of the translators received a grade ranging from 1 to 7. Google and DeepL showed a similar performance with a grade of 4 (both with 30%), obtaining the minimum accepted grade. Followed by Yandex with a grade of 5 (30%) and finally the Human translator with a grade of 7 (39%). Having results that are consistent with respect to the question “Does the translation have more than one error?” since this question points directly to the quality of the translation, therefore to its grade. Having that, 46% of the respondents agreed and strongly agreed that the translation by DeepL contained more than one error, which directly influences the grade

obtained, since these errors affect the reading and understanding of the translation to a certain level. While in the Google translation, 48% of respondents agreed and strongly agreed that it contained more than one error, which was reflected in the grade obtained. For the Yandex translation, respondents agreed and strongly agreed with 45% that the translation had more than one error, obtaining a grade of 5. Finally, for the Human translation, the highest percentage was in disagreement and strongly disagree, with 45% in respect to whether the translation contained more than one error, which is reflected in the good grade obtained. It can be deduced that the machine translators obtained grades close to the minimum accepted grade due to the errors identified by the respondents in the three machine translations. Regarding the analysis carried out in this research (see section 4.4) the results vary a little from the perception of the respondents. As the chosen segment had different results in the analysis, showing that contrary to what the respondents stated, the three translations made by the automatic translators, showed a low performance as they did not respect the format and type of writing that a technical text requires. However, the translation of DeepL and Yandex could be better understood, so the message transfer was better developed, compared to Google's translation. Therefore, DeepL and Yandex should have the same grade and Google a lower one.

## Scientific Text

**Figure 6**

*Students rating of the four translators for scientific texts*



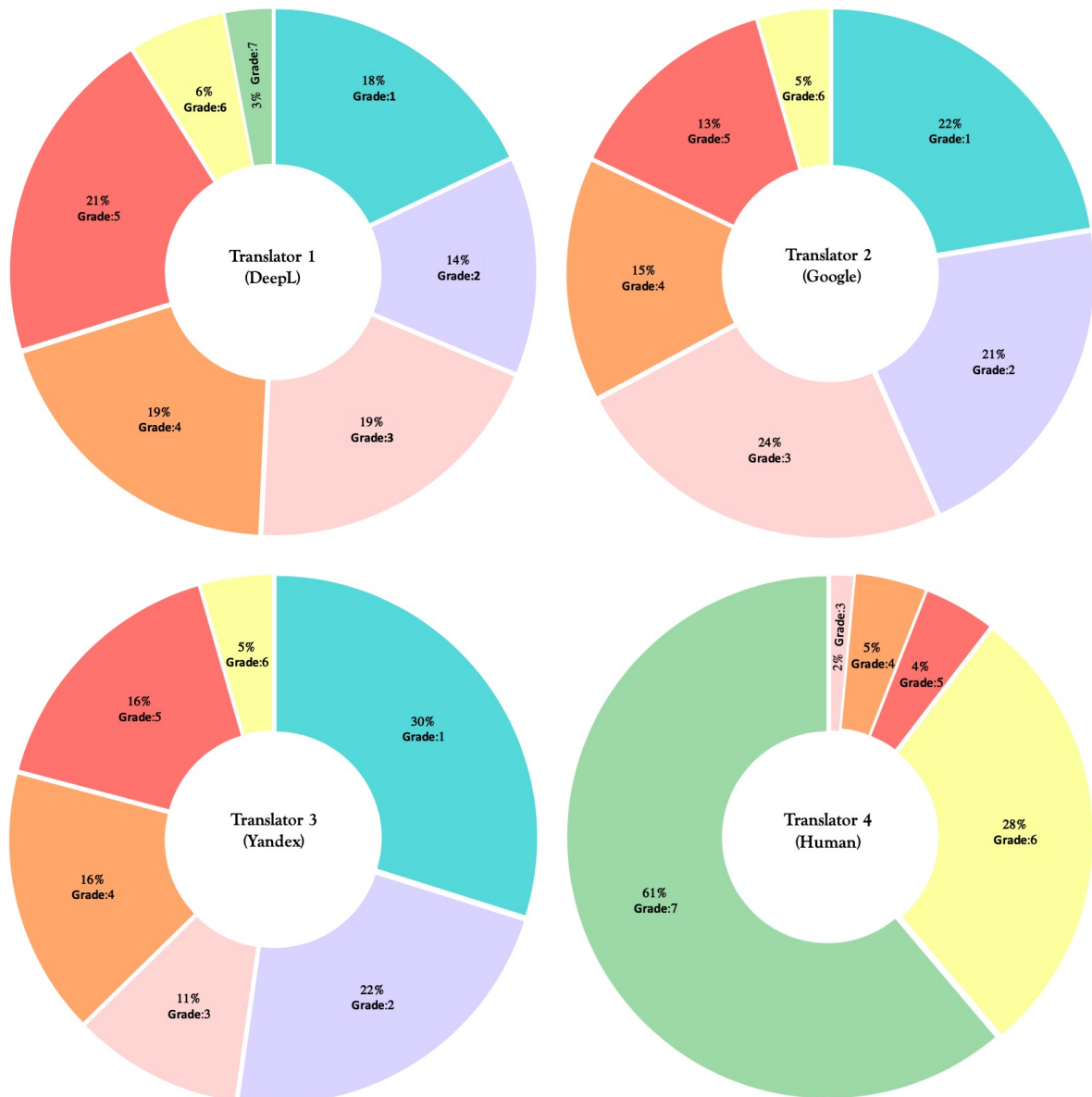
Each of the translators received a grade ranging from 1 to 7. Where DeepL was the worst evaluated, being below the minimum grade accepted with a grade of 3 (25%). For its part, Google received a grade of 4 (28%). Yandex received a grade of 5 (30%). Finally, Human translation received a grade of 7 (42%). The rating of the translations is consistent with respect to the question "Did you fully understand the translated text?", as this is directly related to whether the meaning and message of the translation was correctly transferred to the target

language. Consequently, for the translation of DeepL, only 36% of the respondents fully understood the translation and 37% of them remained neutral, which is reflected in its low grade. For the Google translation, only 47% of the respondents fully understood the translation and 28% remained neutral, indicating that the quality of the translation was not good, which is reflected in the grade of 4. For its part, the Yandex translation obtained a higher understanding with 82% of the respondents agreeing with it, so the objective of the translation was fulfilled, obtaining a grade of 5. Finally, the Human translation, with respect to the question, obtained positive results, since 84% of the respondents said they understood the translation, therefore the message. Regarding the analysis carried out in this research (see section 4.5), the results obtained are similar to the perception of the respondents with respect to the segment shown in the survey. Due to the fact that the three translation programs made errors that distorted the message, with Yandex being the best performer and DeepL having a poor performance, that is reflected in the severity of the errors it made in this segment.

## Literary Text

**Figure 7**

*Students rating of the four translators for literary texts*



Each of the translators received a grade ranging from 1 to 7. Where the translation of Yandex was the worst evaluated with a grade of 1 (30%), followed by Google with a grade of 3 (24%), then DeepL with a grade of 5 (21%) and finally the translation by Human with a grade of 7 (61%). Having results that are consistent with respect to the question “Was the writing in Spanish unnatural?”, a question that is directly related to the correct or not correct transfer of meaning. Since, if the meaning of the message is transferred correctly, it would seem as if it was originally written in the target language. Having that, Yandex's translation obtained that

74% of respondents agreed that the translation sounded unnatural in Spanish, which is reflected in its rating. For its part, the translation of Google, respondents agreed with 72% that the translation did not seem to be originally written in Spanish, so it was not natural to read. This is also reflected in the grade 3 it got, which is below the minimum accepted grade. For the respondents, the translation made by DeepL felt more natural in Spanish. Due to, the most chosen alternatives to the question were: disagree and strongly disagree, which were reflected in 46%. Finally, the translation done by a human stood out above the others, having that 74% approval that the translation felt natural in Spanish reflected in the alternatives disagree and strongly disagree, to whether the translation sounded unnatural in Spanish. Regarding the analysis carried out in this research (see section 4.6), the results obtained are similar to the perception of the respondents with respect to the segment shown in the survey. Since the translations made by Yandex and Google showed a low performance, as they did not transfer the message correctly, since the reading of the message was difficult. On the other hand, DeepL was the program whose translation was closest to the meaning of the source text.

## 5 Conclusion

### 5.1 Findings

#### **5.1.1 Answer to the first research question**

Does the perception of errors become more evident as the complexity of the texts progresses? When students were asked if the translation had more than one error, similar results were obtained. In the first instance, it can be concluded that the perception of the errors is not affected by the complexity of the texts. However, the results were more significant with the *strongly agree* response, because the first three texts (informative, technical, and scientific) maintain a similar average percentage. While in the literary texts, there is a higher percentage of *strongly agree*. This may be due to the segment chosen for the survey, but not to the complexity of the text. This is why the perception of errors is not affected by the complexity of the texts. The results were the following:

**Informative texts:** the students answered *agree* with **43%** for DeepL, **46%** for Google, and **49%** for Yandex. On the other hand, students answered *strongly agree* with **14%** for DeepL, **18%** for Google, and **16%** for Yandex.

**Technical texts:** the students answered *agree* with **34%** for DeepL, **39%** for Google, and **36%** for Yandex. On the other hand, students answered *strongly agree* with **12%** for DeepL, **9%** for Google, and **9%** for Yandex.

**Scientific texts:** the students answered *agree* with **52%** for DeepL, **49%** for Google, and **42%** for Yandex. On the other hand, students answered *strongly agree* with **22%** for DeepL, **18%** for Google, and **3%** for Yandex.

**Literary texts:** the students answered *agree* with **45%** for DeepL, **52%** for Google, and **46%** for Yandex. On the other hand, students answered *strongly agree* with **28%** for DeepL, **33%** for Google, and **36%** for Yandex.

#### **5.1.2 Answer to the second research question**

Does the type of technology/mechanism/algorithm behind the automatic translator affect the quality outcome of the translation?

The results obtained in the analysis of this research showed that the type of technology/mechanism/algorithm was either Statistical machine translation or Neural machine translation do not affect the quality of translation. Because Yandex uses the Statistical machine translation system, and it still got similar results to Google, which uses Neural machine translation system (see Chapter 4).

### **5.1.3 Answer to the third research question**

Do the semantic equivalences provided by the 3 different MTS tools have the same impact as in the source text?

With this research, it was possible to demonstrated that the message translated is not one hundred percent faithful to the source text. Although they translated it, the message is not faithfully delivered, which causes a reading with interference. Due to the number of errors that the translations present. These interferences distract the reader, consequently neither the meaning nor the message of the source text is being respected (see Chapter 4).

### **5.1.4 Answer to the fourth research question**

Does literalness come as the most common error among the three translators?

The errors made by the three translators were different depending on the complexity of the text, being as follows:

The most frequent errors of informative texts were:

- Google: Literalness (27%), Grammar (18%), Terminology (15%), and Usage (15%).
- DeepL: Literalness (31%), Terminology (14%), and Grammar (10%).
- Yandex: Grammar (27%), Literalness (20%), and Usage (16%).

The most frequent errors of technical texts were:

- Google: Terminology (20%), Faithfulness (16%), and Literalness (14%).
- DeepL: Terminology (21%), Literalness (18%), and Faithfulness (16%).
- Yandex: Terminology (20%), Faithfulness (18%), and Literalness (16%).

The most frequent errors of scientific texts were:

- Google: Spelling (63%), Faithfulness (9%), and Literalness (7%).
- DeepL: Spelling (40%), Faithfulness (25%), and Literalness (5%).
- Yandex: Spelling (68%), Terminology (10%), and Literalness (10%).

The most frequent errors of literary texts were:

- Google: Terminology (20%), Literalness (17%), Misunderstanding (15%).

- DeepL: Misunderstanding (19%), Literalness (17%), Terminology (17%).
- Yandex: Terminology (20%), Misunderstanding (18%), and Literalness (16%).

In summary, the most frequent error for informative texts was **Literalness**, for technical texts it was **Terminology**, for scientific texts it was **Spelling**, and for literary texts it was **Terminology**. Although only in informative texts, the error of **Literalness** was the most frequent, the other texts were not exempt from this error. That is why it can be concluded that the most frequent error among the three translators was **Literalness**.

## 5.2 Results and discussions

The comparative study carried out on three machine translators has corroborated six of the seven hypotheses presented at the beginning of this research. The first hypothesis postulated that NMT would obtain better results than SMT. The results obtained in the analysis were clear, since NMT delivered better results. However, Yandex which uses SMT, it obtained similar results to Google which uses NMT. But Yandex could not be compared to the quality of DeepL, which uses NMT. The second hypothesis postulated that the three MT would have errors in the scientific and literary texts. Although this was true, the other texts were not exempt from errors. In fact, those texts obtained numerous errors as well. The results were the following:

- **Informative texts:** DeepL made **29** errors, Google **33** errors, and Yandex **30** errors.
- **Technical texts:** DeepL made **38** errors, Google **44** errors, and Yandex **45** errors.
- **Scientific texts:** DeepL made **55** errors, Google **46** errors, and Yandex **41** errors.
- **Literary texts:** DeepL made **70** errors, Google **81** errors, and Yandex **74** errors.

The third hypothesis stated that the most frequent errors would be Literalness, Terminology and Verb form. In this case, Literalness and Terminology were the most common errors among the three translators, however Verb form was not the most common error. The fourth hypothesis said that the number of errors would increase depending on the complexity of the texts. The results that corroborate this hypothesis are the following:

- **Informative texts:** a total of **92** errors made among the three machine translators.
- **Technical texts:** a total of **120** errors made among the three machine translators.
- **Scientific texts:** a total of **142** errors made among the three machine translators.
- **Literary texts:** a total of **225** errors made among the three machine translators.

The fifth hypothesis postulated that in the holistic analysis none of the three machine translators was expected to obtain “Distinction”. This was fulfilled due to the number of errors made and the unnatural aspects of Spanish writing. Also, the message and the meaning distorted by the errors.

The sixth hypothesis was regarding the survey and established that better results would be obtained in scientific and literary texts, due to the fact that they present a greater number of evident errors. When students were asked if the translations had more than one error, the following results were obtained:

*Does the translation have more than one error?*

- **Informative text:**

With respect to the Machine translation, students “agree” in the following percentages

- DeepL **43%**, Google **46%**, and Yandex **49%**

Students evaluated Human translation with the answers “agree” and “disagree”

- With **21%** (agree) and **25%** (disagree)

- **Technical text:**

With respect to the Machine translation, students “agree” in the following percentages

- DeepL **34%**, Google **39%**, and Yandex **36%**

Students evaluated Human translation with the answers “agree” and “disagree”

- With **21%** (agree) and **28%** (disagree)

- **Scientific text:**

With respect to the Machine translation, students “agree” in the following percentages

- DeepL **52%**, Google **49%**, and Yandex **42%**

Students evaluated Human translation with the answers “agree”, “disagree”, and “strongly disagree”

- With **24%** (agree), **25%** (disagree), and **25%** (strongly disagree)

- **Literary text:**

With respect to the Machine translation, students “agree” and “strongly agree” in the following percentages

- DeepL **45%** (agree) and **28%** (strongly agree)

- Google **52%** (agree) and **33%** (strongly agree)
- Yandex **46%** (agree) and **36%** (strongly agree)

Students evaluated Human translation with the answers “disagree” and “strongly disagree”

- **34%** (disagree) and **30%** (strongly disagree)

These results show how accurate the students were when evaluating the performance of machine translation. But when it came to human translation, students were indecisive. Although this changed radically with literary text, which showed more accurate results when students evaluating the human translation.

Regarding the seventh hypothesis, it was expected that the majority of students would agree when they were asked about using Machine translators as a translation tool. Nevertheless, the students disagreed or some remained neutral. This can be explained by the reputation that Machine translators have, or by the lack of knowledge that exists about the machine translation system. The results for this question are shown below:

*Would you use machine translator as a translation tool?*

- 19% of the students answered “Definitely not”
- 25% of the students answered “Probably not”
- 34% of the students answered “Neutral”
- 17% of the students answered “Probably yes”
- 5% of the students answered “Definitely yes”

Finally, the results have confirmed that although Machine translators are not perfect, they can be used as a translation tool. It can be used and be beneficial in different aspects. Firstly as a pre-translation tool, professional translators can use automatic translation to quickly generate a rough translation of a text, which they can then edit and refine to produce a final, high-quality translation. This can save time and effort for translators, especially when working with large or complex texts. As a research aid, professional translators can use automatic translation to quickly access information from sources in other languages, which can be useful for research or background reading. It also improves efficiency, automatic translation can significantly speed up the translation process, allowing professional translators to handle more projects and increase productivity. In its cost-effectiveness, using automatic translation can reduce the cost of translation by reducing the amount of time and effort required by professional translators,

making it a cost-effective option. Overall, automatic translation is a valuable tool for professional translators as it can improve efficiency, accuracy, and support for multiple languages, and provide cost-effective solutions. However, it is important to keep in mind that automatic translation should be used in conjunction with human expertise to ensure the highest quality translations. MT could be used to save time and have a general idea of the translation of the text. Nonetheless, MT must be used wisely, knowing its problems. In sale line, if MT will be used anyway, it should be used as a preliminary search that helps in the first instance, but it is the duty of the translator to continue with the subsequent documentation. Another important point is that MT's are more useful for professional translators, since only they could know if there is any translation error or not. Furthermore, there are cultural and contextual aspects of high complexity which could only be detected by a professional of the language. Last but not least, the post-editing of an MT is totally ruled out, because it is a more complex process that would only difficult the translator's work, in those cases, the translation from zero of the original text would be more adequate. Moreover, it would hinder the work of a human translator, and it is very possible that the process of post-editing will take more time than translating the text from the beginning.

### **5.3 Limitations**

The analysis has been carried out on a parallel corpus with no more than 200 words, due to the fact that there were four different complexities of texts. Consequently, the sample is small, and the results were limited. However, these results can help to understand how the three machine translators (DeepL, Google, and Yandex) would work faced with the four types of texts: informative, technical, scientific, and literary. Additionally, being two parallel corpora for each text complexity, the results can be a great contribution for future research.

The limitations with the survey are presented by its extension, since that there were four complexities of texts a short survey could not be carried out. This could affect the responses of the students. On the other hand, the survey was carried out only with students, in consequence the sample could be more representative if professional translators had also been taken into account.

## References

- Álvarez de Mon y Rego, I. (2019). La cohesión del texto científico-técnico: un estudio contrastivo inglés-español. *Ene*, 10, 39.
- American Translators Association. (2017). Framework for Standardized Error Marking. <https://www.atanet.org/certification/how-the-exam-is-graded/error-marking/>
- American Translators Association. (2021). Explanation of error categories. <https://www.atanet.org/certification/how-the-exam-is-graded/error-categories/>
- Bolaños Sandoval, R. J., & Ramos Reyes, D. A. (2021). Errores de traducción automática del inglés al español de una página web de noticias, Lima, 2021.
- Bruno, L., Luque, I., & Ferreyra, L. (2016). La traducción de textos técnicos.
- Cabré, M. T. (2002). Textos especializados y unidades de conocimiento: metodología y tipologización. En: García Palacios, Joaquín; Fuentes, M. Teresa (eds). *Texto, terminología y traducción*. Salamanca: Ediciones Almar, p. 22. ISBN: 84-7455-079-3
- Cabré, M. T. (1993). *La terminología: teoría, metodología, aplicaciones*. Barcelona: Antártida/Empúries.
- Castilho, S., Doherty, S., Gaspari, F., & Moorkens, J. (2018). Approaches to human and machine translation quality assessment. In *Translation quality assessment* (pp. 9-38). Springer, Cham.
- Cauas, D. (2015). Definición de las variables, enfoque y tipo de investigación. Bogotá: biblioteca electrónica de la universidad Nacional de Colombia, 2, 1-11.
- Chartered Institute of Linguists. (2022). About the Chartered Institute of Linguists. <https://www.ciol.org.uk/about>
- Chartered Institute of Linguists. (2022). CIOL Qualifications Level 6 Certificate in Translation. <https://www.ciol.org.uk/CertTrans>
- Cieza Delgado, Y. Y. (2020). Análisis de errores sintácticos de la traducción automática en textos médicos.
- Costa-Jussa, M. R., Farrús, M., Mariño Acebal, J. B., & Fonollosa, J. A. R. (2012). Study and comparison of rule-based and statistical catalan-spanish machine translation systems. *Computing and Informatics*. 2012; 31 (2): 245-70.
- Deng, L., Li, J., & Liu, K. (2019). A comparison of statistical and neural machine translation systems. *Journal of Computer Science and Technology*, 34(4), 597-604.
- de Luxán Hernández, L. (2019). Los estudios de traducción: una disciplina sin etiquetas. *Entreculturas: revista de traducción y comunicación intercultural*, (10), 23-34.
- Diéguez, M. I., & Lazo, R. M. (2004). Tecnologías de la información y de la comunicación (TIC) al servicio del traductor profesional. *Onomázein*, 1(9), 51-74.
- Doherty, S. (2017). Issues in human and automatic translation quality assessment. *Human issues in translation technology*, 149-166.
- Dos Santos, F. E., & Alvarado, E. (2012). Traducción literaria y sus implicancias en la construcción de la cultura. *Núcleo*, 24(29), 217-245.

- Dorothy, D., Keiko, N., & Vladimir, K. (2019). Lost in machine translation: Contextual linguistic uncertainty. Вестник Волгоградского государственного университета. Серия 2: Языкознание, 18(4), 129-144.
- EAGLES (1996). "Text Corpora Working Group Reading Guide". Documento Eagles (Expert Advisory Group on Language Engineering) EAG-TCWG-FR-2, 4.
- Estívariz Álvaro, A. L. (2019). La traducción automática en turismo: ¿De verdad puede sustituir al traductor humano?.
- Franco Aixelá, Javier (2015), La traducción de textos científicos y técnicos. Tonos Digital, 29.
- García Hernández, V. A., & Sosa Galán, E. A. Análisis de los recursos didácticos en la Web para nivel de educación básica.
- Gómez, Norman, & Gómez, Jorge Iván. (2011). Aproximación a una didáctica de la traducción de textos científicos y técnicos inglés-español. Íkala, Revista de Lenguaje y Cultura, 16(27). [http://www.scielo.org.co/scielo.php?script=sci\\_arttext&pid=S0123-34322011000100006&lng=en&tlng=es](http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-34322011000100006&lng=en&tlng=es)
- González Boluda, M. (2010). Estudio comparativo de traductores automáticos en línea: Systran, Reverso y Google. Núcleo, 22(27), 187-216.
- Graham, Y., Baldwin, T., Moffat, A., & Zobel, J. (2014, April). Is machine translation getting better over time?. In Proceedings of the 14th Conference of the European Chapter of the Association for Computational Linguistics (pp. 443-451).
- Guerrero Ramos, G. (1999). "¿Tecnolectos, lenguajes (lenguas) específicos, especiales, especializados o de especialidad?" En Lingüística para el siglo XXI. Actas del XXI Congreso de Lingüística General, J. Fernández González (ed.), 879-887. Salamanca: Universidad de Salamanca
- Gutiérrez-Rexach, J. (2016). Enciclopedia de Lingüística Hispánica (1st ed.). Routledge. <https://doi.org/10.4324/9781315713441>
- Hallebeek, J. (1999). El corpus paralelo. Procesamiento del lenguaje natural, 24.
- Hamui-Sutton, A. (2013). Un acercamiento a los métodos mixtos de investigación en educación médica. Investigación en educación médica, 2(8), 211-216.
- Han, L., Jones, G. J., & Smeaton, A. F. (2021). Translation quality assessment: A brief survey on manual and automatic methods. arXiv preprint arXiv:2105.03311.
- Hovy, E., Spruit, J., & Boitet, C. (2016). Multilingual text generation: A survey of the state of the art. Computer Speech & Language, 34, 1-41.
- Huamán Pérez, S. A. (2019). Errores de traducción automática de páginas web y blogs turísticos, Lima, 2019.
- Jornades Catalanes sobre Llengües per a Finalitats Específiques (2o: 1998: Canet de Mar). (1999). El llenguatge científic: edició, traducció i implicacions pedagògiques: actes. Universitat de Barcelona.
- Koby, G. S., Fields, P., Hague, D. R., Lommel, A., & Melby, A. (2014). Defining translation quality. Tradumàtica, (12), 0413-420.
- Koehn, P. (2010). Machine Translation. Cambridge University Press.

- Localization Industry Standards Association (LISA). 1998. LEIT phase I final report. Amsterdam: LISA.
- Logacheva, V. (2017). Human Feedback in Statistical Machine Translation (Doctoral dissertation, University of Sheffield).
- Márquez, D. A. (2011). Las once competencias del traductor: El perfil ideal en servicios de traducción. *Comunicación, cultura y política*, (4), 53-68.
- Martin, J. M. M. (2010). Sobre la evaluación de traducciones en el ámbito académico. *Revista española de lingüística aplicada*, (23), 229-246.
- Moncada Carvajal, A. M. (2018) Aprendizaje autónomo de las técnicas de traducción del inglés al español de Latinoamérica.
- Muñoz Dagua, C. (2012). Leer y escribir textos de divulgación científica: Un camino a la inclusión. [Artículo]. IV encuentro internacional y V nacional "lectura y escritura para la inclusión social, Bogotá, Colombia.
- Muslat, A. W. M. (2012). Translation and the characteristics of literary text. *Arab World English Journal*, 3(1), 42-49.
- Napu, N. & Hasan, R. (2019). Translation problems analysis of students' academic essay. *International Journal of Linguistics, Literature and Translation*, 2(5), 01-11.
- Newmark, P. (1993). *Paragraphs on Translation*. UK: Multilingual Matters.
- Nie, J., Li, H., & Chen, Y. (2018). A survey of neural machine translation. arXiv preprint arXiv:1808.07755.
- Noguerol, M. E. C. (2018). Los traductores automáticos en línea como recurso metodológico en el aula de Español como lengua Extranjera. *Transforming education for a Changing World*, 304.
- Nord, C. (2014). *Translating as a purposeful activity: Functionalist approaches explained*. Routledge.
- PACTE Group. (2016). *Translation competence: Theory, assessment, and pedagogy*. Amsterdam: John Benjamins.
- Palomo Rivero, J. M. (2018). Descripción normativa del español: aportaciones académicas a la nivelación lingüística.
- Parra, C. (2012). Historia de la traducción Automática. *La Linterna del Traductor*. La revista multilingüe de ASETRAD.
- Parra, C. (2018). Evolución de la traducción automática. *La Linterna del Traductor*. La revista multilingüe de ASETRAD, 20-28.
- Pérez, C. R. (2017). La formación de traductores en Traducción Automática. *Revista Tradumàtica: tecnologies de la traducció*, (15), 75-96.
- Peris, L., Domingo, M., & Casacuberta, F. (2017). Interactive neural machine translation. *Computer Speech & Language*, 45, 201-220. <https://doi.org/10.1016/j.csl.2016.12.003>
- Phelan, M. (2017). Analytical assessment of legal translation: a case study using the American Translators Association framework. *The Journal of Specialised Translation*, 27, 89-210.
- Pym, A. (1992). Translation error analysis and the interface with language teaching. *The teaching of translation*, 279-288.
- Pym, A. (2012). *Teorías contemporáneas de la traducción*. Materiales para un curso universitario.

- Pym, A. (2014). *Exploring Translation Theories* (2nd ed.). London and New York: Routledge.
- Restrepo Klinge, S. (2019). Google Translate vs Traducción Humana: percepciones de ocho traductores en torno al papel de este traductor automático en su labor.
- Riippa, J. (2016). User-Centered Translation in Website Localization-Overall Usability of the Finnish Country Site of Hotels.com.
- Roiss, S. (2008). Desarrollo de la competencia traductora: teoría y práctica del aprendizaje constructivo:(traducción inversa, español-alemán). Comares.
- Rosemary, M. S. (2015). A reconsideration of translation quality and standards. *Journal of the Siberian Federal University. Humanities*, 8(12), 2908-2919.
- Safronova, A.P. (2018). Translation and localization. *Issues of Applied Linguistics*, 29, 65-72.
- Schäler, R. (2010). Localization and translation. *Handbook of translation studies*, 1, 209-214.
- Serrano Vega, C. (2015). Postedición: situación actual de la traducción automática y estudio de un caso práctico.
- Sinclair, J.M. (1991). *Corpus, Concordance, Collocation*. Oxford: Oxford University Press, 171.
- Sinhal, R. A., & Gupta, K. O. (2014). Machine translation approaches and design aspects. *IOSR Journal of Computer Engineering*, 16(1), 22-25.
- Soltani, F., Nemati, A., & Yamini, M. (2020). An analysis of translation errors in 5 literary genres based on American Translation Association (ATA) framework. *Cogent Arts & Humanities*, 7(1), 1799732.
- Tapia, S. R. (2016). Los textos especializados, semiespecializados y divulgativos: una propuesta de análisis cualitativo y de clasificación cuantitativa. *Signa: Revista de la Asociación Española de Semiótica*, (25), 987-1006.
- Tester Tester, M. (2014). Las tecnologías de la información y de la comunicación (TIC) y su repercusión en la práctica traductora.
- Viver Sorolla, P. (2018). La evaluación de las herramientas de traducción automática (TA) desde la perspectiva del traductor: Google Translate, Bing, Babylon y Systran.
- Waddington, C. (2000). Estudio comparativo de diferentes métodos de evaluación de traducción general (Inglés- Español). Spain: Universidad Pontificia Comillas.
- Waddington, C. (2000). Estudio comparativo de diferentes métodos de evaluación de traducción general (Vol. 79). Univ Pontifica Comillas.
- Zanón, N. T. (2012). *A University Handbook on Terminology and Specialized Translation*. Netbiblo.
- Zhou, Y., Liu, X., Zhang, H., Fan, Y., & Tian, F. (2020). A comparative study of statistical and neural machine translation systems. *Journal of Computer Science and Technology (JCST)*.

## ANNEXES

### 1 Text analysis

#### 1.1 Informative texts

##### Text #1

Retrieved from	<b>Corpus</b> <i>Scientific knowledge essential for sustainable oceans, UN Ocean Conference hears</i> (ONU)	Amount of words
<b>Source Text</b>	<p>Recent years have seen increased scientific innovation and growing recognition of the importance of ocean science in contributing to the 2030 Sustainable Development Goals (SDGs).</p> <p>A vast range of initiatives have been developed and are being implemented not only by the UN, but also by governments, civil society, and the scientific community.</p> <p>Strong engagement and ownership by a wide range of stakeholders is essential for optimizing the unique opportunity provided by the UN Decade of Ocean Sciences for Sustainable Development (2021 to 2030), and realizing the 2030 Agenda for Sustainable Development.</p> <p>The Intergovernmental Oceanographic Commission (IOC) is the body that works to strengthen international collaboration on ocean science and ocean research – a job that no single country can undertake by itself.</p>	<b>121</b>
<b>Target Text</b> official translation by ONU	<p>En los últimos años se ha producido una mayor innovación científica y un progresivo reconocimiento de la importancia que tiene la oceanografía para contribuir a los Objetivos de Desarrollo Sostenible (ODS) a cumplirse en 2030.</p> <p>Se han desarrollado diversas iniciativas que están siendo implementadas no solo por la ONU, sino también por los gobiernos, la sociedad civil y la comunidad científica.</p> <p>El compromiso y la implicación de las partes interesadas son esenciales para aprovechar al máximo la oportunidad única que ofrece el Decenio de las Naciones Unidas de las Ciencias Oceánicas para el Desarrollo Sostenible (2021-2030) y hacer realidad la Agenda 2030 para el Desarrollo Sostenible.</p> <p>La Comisión Oceanográfica Intergubernamental (COI) es el organismo que trabaja para reforzar la colaboración internacional en materia de ciencias del mar e investigación oceánica, una labor que ningún país puede realizar por sí solo.</p>	<b>140</b>

<b>DeepL</b> Translation #1	<p>En los últimos años se ha producido un aumento de la innovación científica y un creciente reconocimiento de la importancia de las ciencias oceánicas para contribuir a los Objetivos de Desarrollo Sostenible (ODS) de 2030.</p> <p>Se ha desarrollado una amplia gama de iniciativas que están siendo implementadas no solo por la ONU, sino también por los gobiernos, la sociedad civil y la comunidad científica.</p> <p>Es esencial que una amplia gama de partes interesadas se comprometan y hagan suya la iniciativa para optimizar la oportunidad única que ofrece el Decenio de las Naciones Unidas de las Ciencias Oceánicas para el Desarrollo Sostenible (2021-2030) y hacer realidad la Agenda 2030 para el Desarrollo Sostenible.</p> <p>La Comisión Oceanográfica Intergubernamental (COI) es el organismo que trabaja para reforzar la colaboración internacional en materia de ciencias del mar e investigación oceánica, una labor que ningún país puede realizar por sí solo.</p>	146
<b>Google Translate</b> Translation #1	<p>En los últimos años se ha visto una mayor innovación científica y un reconocimiento cada vez mayor de la importancia de las ciencias oceánicas para contribuir a los Objetivos de Desarrollo Sostenible (ODS) de 2030.</p> <p>Se ha desarrollado una amplia gama de iniciativas y están siendo implementadas no solo por la ONU, sino también por los gobiernos, la sociedad civil y la comunidad científica.</p> <p>Un fuerte compromiso y apropiación por parte de una amplia gama de partes interesadas es esencial para optimizar la oportunidad única que brinda la Década de las Ciencias Oceánicas de las Naciones Unidas para el Desarrollo Sostenible (2021 a 2030) y hacer realidad la Agenda 2030 para el Desarrollo Sostenible.</p> <p>La Comisión Oceanográfica Intergubernamental (COI) es el organismo que trabaja para fortalecer la colaboración internacional en ciencias oceánicas e investigación oceánica, un trabajo que ningún país puede emprender por sí solo.</p>	145
<b>Yandex Translate</b> Translation #1	<p>En los últimos años se ha producido un aumento de la innovación científica y un creciente reconocimiento de la importancia de las ciencias oceánicas para contribuir a los Objetivos de Desarrollo Sostenible (ODS) de 2030.</p> <p>Se ha desarrollado una amplia gama de iniciativas que están siendo implementadas no solo por la ONU, sino también por los gobiernos, la sociedad civil y la comunidad científica.</p> <p>Un fuerte compromiso y apropiación por parte de una amplia gama de partes interesadas es esencial para optimizar la oportunidad única que brinda la Década de las Ciencias Oceánicas para el Desarrollo Sostenible de las Naciones Unidas (2021 a 2030) y realizar la Agenda 2030 para el Desarrollo Sostenible.</p>	144

	La Comisión Oceanográfica Intergubernamental (COI) es el organismo que trabaja para fortalecer la colaboración internacional en ciencias oceánicas e investigación oceánica, un trabajo que ningún país puede realizar por sí solo.	
--	---	--

## Text #2

Retrieved from	<b>Corpus</b> <i>Suriname gives 'hope and inspiration to the world to save our rainforests': UN chief</i> (ONU)	Amount of words
<b>Source Text</b>	<p>Suriname is considered a carbon negative country, as its rainforests absorb more emissions than the country emits. Thick green foliage seems to be just about everywhere, even near the outskirts of the capital, Paramaribo, which is itself dotted with bustling markets and cultural centres.</p> <p>On Saturday, UN Secretary-General António Guterres saw first-hand the commitment of the Surinamese people to protect their natural treasures and ancestral knowledge.</p> <p>"Rainforests are a precious gift to humanity. That is why from here in Suriname, I want to send a message to the world: We must honour and preserve the gift of rainforests because this is not a gift that will keep on giving", Mr. Guterres told reporters at a joint press conference with President Chan Santokhi at the end of his first day in the country.</p>	132
<b>Target Text</b> official translation by ONU	<p>La hermosa y densa selva tropical de Surinam, que le permite tener una huella de carbono casi negativa, se puede ver fácilmente desde casi cualquier lugar, incluso desde las afueras de la capital, Paramaribo, que a su vez está salpicada de bulliciosos mercados y centros culturales.</p> <p>Este sábado, el Secretario General de la ONU, António Guterres, observó de primera mano el compromiso del pueblo surinamés de proteger sus tesoros naturales y conocimientos ancestrales.</p> <p>"Las selvas tropicales son un regalo precioso para la humanidad. Por eso, desde aquí en Surinam, quiero enviar un mensaje al mundo: debemos honrar y preservar el regalo de las selvas tropicales porque este no es un regalo que se seguirá dando", dijo Guterres a los periodistas en una conferencia de prensa conjunta con el presidente del país, Chan Santokhiat, al final de su primer día en esa nación.</p>	142

<p><b>DeepL</b> Translation #2</p>	<p>Surinam se considera un país con emisiones negativas de carbono, ya que sus bosques tropicales absorben más emisiones de las que el país emite.El espeso follaje verde parece estar por todas partes, incluso cerca de las afueras de la capital, Paramaribo, que a su vez está salpicada de bulliciosos mercados y centros culturales. El sábado, el Secretario General de la ONU, António Guterres, comprobó de primera mano el compromiso del pueblo surinamés con la protección de sus tesoros naturales y sus conocimientos ancestrales.</p> <p>"Los bosques tropicales son un precioso regalo para la humanidad. Por eso, desde aquí, en Surinam, quiero enviar un mensaje al mundo: Debemos honrar y preservar el regalo de las selvas tropicales porque no es un regalo que vaya a seguir dándose", dijo Guterres a los periodistas en una conferencia de prensa conjunta con el Presidente Chan Santokhi al final de su primer día en el país.</p>	<p>151</p>
<p><b>Google Translate</b> Translation #2</p>	<p>Surinam se considera un país negativo en carbono, ya que sus selvas tropicales absorben más emisiones de las que emite el país. El espeso follaje verde parece estar en todas partes, incluso cerca de las afueras de la capital, Paramaribo, que está salpicada de bulliciosos mercados y centros culturales.</p> <p>El sábado, el secretario general de la ONU, António Guterres, vio de primera mano el compromiso del pueblo surinamés de proteger sus tesoros naturales y conocimientos ancestrales.</p> <p>"Las selvas tropicales son un regalo precioso para la humanidad. Por eso, desde aquí en Surinam, quiero enviar un mensaje al mundo: debemos honrar y preservar el regalo de las selvas tropicales porque este no es un regalo que se seguirá dando", dijo el Sr. Guterres a los periodistas en una conferencia de prensa conjunta. con el presidente Chan Santokhiat al final de su primer día en el país.</p>	<p>145</p>
<p><b>Yandex Translate</b> Translation #2</p>	<p>Surinam es considerado un país negativo en carbono, ya que sus selvas tropicales absorben más emisiones de las que emite el país.El espeso follaje verde parece estar en todas partes, incluso cerca de las afueras de la capital, Paramaribo, que a su vez está salpicada de bulliciosos mercados y centros culturales.</p> <p>El sábado, el Secretario General de la ONU, Antonio Guterres, fue el primero,y el compromiso del pueblo surinamés de proteger sus tesoros naturales y conocimientos ancestrales.</p> <p>"Las selvas tropicales son un regalo precioso para la humanidad. Es por eso que desde aquí en Surinam, quiero enviar un mensaje al mundo: debemos honrar y preservar el regalo de las selvas tropicales porque este no es un regalo que se seguirá dando", dijo Guterres a los periodistas en una conferencia de prensa conjunta con el presidente Chan Santokhi al final de su primer día en el país.</p>	<p>148</p>

## 1.2 Technical Texts

### Text #1

Retrieved from	Corpus <i>iRoll - the intelligent roll</i> (Valmet)	Amount of words
<b>Source Text</b>	<p>iRoll provides measurement immediately from the beginning of the roll. Typically, after turn-up it takes a few minutes of paper accumulation on the reel spool before the nip pressure profile stabilizes. It is reasonable to wait until that time passes before control actions are made.</p> <p>At Plattling, iRoll automatic profile control uses profiling SymRolls as the actuator to adjust calender linear load and caliper profile. Another possibility could be induction profiling, but in this case there are no such devices. Also, the dry weight profile target has been manually tuned to optimize reeling and winding. There are no obstacles to use dry weight behind automatic iRoll feedback.</p> <p>On the Plattling PM1 iRoll, closed loop control has been used continuously since startup. After the measurement was setup and calibrated for the first time it has been stable and further calibrations have not been necessary for several months. However, the calibration procedure is simple and the whole procedure is assisted by the operator interface. Calibration can be performed within a half hour during downtime such as during a wet end break or felt change.</p>	182
<b>Target Text</b> (official translation)	<p>iRoll proporciona mediciones de manera inmediata desde el inicio del <b>rollo</b>. De manera típica, luego del arranque, se requieren algunos minutos de <b>acumulación de papel</b> en el centro de la <b>bobina</b> antes de que se establezca el <b>perfil de la presión de nip</b>. Es razonable esperar a que pase ese lapso antes de tomar acciones de control.</p> <p>En <b>Plattling</b>, el control automático de perfil iRoll utiliza <b>SymRolls de perfil</b> como actuador para ajustar la <b>carga lineal de la calandria</b> y el perfil del <b>calibrador</b>. Otra posibilidad podría ser el <b>perfil de inducción</b>, pero en este caso no existen estos dispositivos. Asimismo, el objetivo de <b>perfil de peso en seco</b> se ajustó de manera manual para optimizar el <b>bobinado</b> y el <b>rebobinado</b>. No hay obstáculos para utilizar el <b>peso seco</b> detrás de la retroalimentación automática de iRoll.</p> <p>En el <b>iRoll de Plattling PM1</b>, se emplea de manera continua un <b>control de ciclo cerrado</b> desde el arranque. Después de configurar y calibrar la medición por primera</p>	224

	<p>vez, ha permanecido estable y no se han requerido nuevas calibraciones en varios meses. Sin embargo, el procedimiento de calibración es muy sencillo y está asistido en su totalidad por una interfaz del operador. Es posible realizar la calibración en media hora durante un paro de máquina, por ejemplo, durante una <b>ruptura del extremo húmedo</b> o un <b>cambio de filtro</b>.</p>	
<p><b>DeepL</b> Translation #1</p>	<p>iRoll proporciona una medición inmediata desde el inicio de la <b>bobina</b>. Normalmente, después de la puesta en marcha se necesitan unos minutos de acumulación de papel en la bobina del <b>carrete</b> antes de que el perfil de presión del nip se estabilice. Es razonable esperar a que pase ese tiempo antes de realizar acciones de control.</p> <p>En Plattling, el control de perfil automático iRoll utiliza SymRolls de <b>perfilado</b> como actuador para ajustar la carga lineal de la calandra y el perfil de la <b>pinza</b>. Otra posibilidad podría ser el <b>perfilado por inducción</b>, pero en este caso no existen estos dispositivos. Además, el objetivo del perfil de peso seco se ha ajustado manualmente para optimizar el <b>devanado</b> y el bobinado. No hay obstáculos para utilizar el peso seco detrás de la retroalimentación automática de iRoll.</p> <p>En la <b>Plattling PM1 iRoll</b>, el control de bucle cerrado se ha utilizado continuamente desde la puesta en marcha. Después de configurar y calibrar la medición por primera vez, se ha mantenido estable y no han sido necesarias más calibraciones durante varios meses. Sin embargo, el procedimiento de calibración es sencillo y todo el proceso está asistido por la interfaz del operador. La calibración puede realizarse en media hora durante el tiempo de inactividad, como por ejemplo durante una rotura de la parte húmeda o un cambio de <b>fieltro</b>.</p>	<b>223</b>
<p><b>Google</b> <b>Translate</b> Translation #1</p>	<p>iRoll proporciona mediciones inmediatamente desde el comienzo del rollo. Por lo general, después de la activación, se necesitan unos minutos de acumulación de papel en el <b>carrete</b> antes de que se estabilice el perfil de presión del nip. Es razonable esperar hasta que pase ese tiempo antes de realizar acciones de control.</p> <p>En Plattling, el control de perfil automático iRoll utiliza SymRolls de <b>perfilado</b> como actuador para ajustar la carga lineal de la calandra y el perfil del calibrador. Otra posibilidad podría ser el <b>perfilado</b> por inducción, pero en este caso no existen tales dispositivos. Además, el objetivo del perfil de peso seco se ha ajustado manualmente para optimizar el <b>bobinado</b> y el <b>bobinado</b>. No hay obstáculos para usar el peso seco detrás de la retroalimentación automática de iRoll.</p> <p>En <b>Plattling PM1 iRoll</b>, el control de circuito cerrado se ha utilizado continuamente</p>	<b>213</b>

	<p>desde el inicio. Después de configurar y calibrar la medición por primera vez, se ha mantenido estable y no han sido necesarias más calibraciones durante varios meses. Sin embargo, el procedimiento de calibración es simple y todo el procedimiento es asistido por la interfaz del operador. La calibración se puede realizar en media hora durante el tiempo de inactividad, como durante un <b>descanso</b> del extremo húmedo o un cambio de <b>fieltro</b>.</p>	
<p><b>Yandex Translate</b> Translation #1</p>	<p>iRoll proporciona la medición <b>inmediatamente</b> desde el principio del rollo. Típicamente, después del <b>giro</b>, se necesitan unos pocos minutos de acumulación de papel en la <b>bobina del carrete</b> antes de que se establezca el <b>perfil de presión de la línea de contacto</b>. Es razonable esperar hasta que pase ese tiempo antes de que se realicen las acciones de control.</p> <p>En Plattling, el control automático de perfiles iRoll utiliza <b>rodillos de perfilado</b> como actuador para ajustar la carga lineal de la calandra y el perfil de la <b>pinza</b>. Otra posibilidad podría ser el <b>perfilado</b> por inducción, pero en este caso no existen tales dispositivos. Además, el objetivo del perfil de peso en seco se ha ajustado manualmente para optimizar el <b>bobinado</b> y el <b>bobinado</b>. No hay obstáculos para usar el peso seco detrás de la retroalimentación automática de iRoll.</p> <p>En el Plattling PM1 iRoll, el control de bucle cerrado se ha utilizado continuamente desde el arranque. Después de que la medición se configuró y calibró por primera vez, ha sido estable y no han sido necesarias calibraciones adicionales durante varios meses. Sin embargo, el procedimiento de calibración es simple y todo el procedimiento es asistido por la interfaz del operador. La calibración se puede realizar en media hora durante el tiempo de inactividad, como durante una rotura de extremo húmedo o un cambio de <b>fieltro</b>.</p>	<b>224</b>

**Text #2**

Retrieved from	<p style="text-align: center;"><b>Corpus</b> <i>PROAIR Air Conditioner CR29 Model, INSTRUCTION MANUAL</i> (NVENT)</p>	Amount of words
<b>Source Text</b>	<p>PROAIR Air Conditioner CR29 Model INSTRUCTION MANUAL</p>	<b>86</b>

	<p>MOUNTING <b>GASKET KIT</b> DESIGN NOTES</p> <ol style="list-style-type: none"> <li>1. <b>Gasket kit</b> included. Apply gasket to rear of air conditioner before mounting on enclosure.</li> <li>2. Service cord terminated with appropriate plug cap.</li> <li>3. Millimeter dimensions [ ] are for reference only; do not convert to inch dimensions.</li> <li>4. Allow at least 4 inch inlet and 6 inch outlet clearance for proper ambient air flow. Allow 20 inch above filter for removal.</li> </ol> <p>Mounting gasket kit part no. 29-4100-02 as applied to rear of CR29.</p>	
<p><b>Target Text</b> (official translation)</p>	<p>PROAIR AIRE CONDICIONADO Modelo CR29 MANUAL DE USO <b>KIT DE EMPAQUES PARA MONTAJE</b> NOTAS SOBRE EL DISEÑO</p> <ol style="list-style-type: none"> <li>1. <b>Kit de empaques</b> incluido. Aplicar la junta a la parte trasera del equipo de aire acondicionado antes de montar en el <b>gabinete</b>.</li> <li>2. El cable de servicio cuenta con la <b>terminación en tapa correspondiente</b>.</li> <li>3. Las dimensiones en milímetros [ ] son únicamente para referencia; no haga la conversión a pulgadas.</li> <li>4. Mantenga una <b>holgura</b> de 4 pulgadas de entrada y 6 pulgadas de salida como mínimo para el <b>flujo apropiado del aire ambiental</b>. Mantenga 20 pulgadas por encima del filtro para su <b>remoción</b>.</li> </ol> <p>Kit de <b>empaques para montaje</b>, número de parte 29-4100-02, aplicado a la parte trasera de CR29.</p>	
<p><b>DeepL</b> Translation #2</p>	<p>Aire acondicionado PROAIR Modelo CR29 MANUAL DE INSTRUCCIONES NOTAS DE DISEÑO DEL <b>KIT DE JUNTAS DE MONTAJE</b></p> <ol style="list-style-type: none"> <li>1. Se incluye el <b>kit de juntas</b>. Aplique la junta a la parte trasera del acondicionador de aire antes de montarlo en el <b>recinto</b>.</li> <li>2. Cable de servicio terminado con la <b>tapa de enchufe apropiada</b>.</li> <li>3. Las dimensiones en milímetros [ ] son sólo de referencia; no las convierta en pulgadas.</li> <li>4. Deje un <b>espacio libre</b> de al menos 4 pulgadas en la entrada y 6 pulgadas en la salida para un <b>flujo de aire ambiental adecuado</b>. Deje 20 pulgadas por encima del</li> </ol>	<p><b><u>119</u></b></p>

	<p>filtro para <b>poder retirarlo.</b></p> <p><b>Kit de juntas de montaje</b>, pieza n° 29-4100-02, aplicado a la parte trasera del CR29.</p>	
<p><b>Google Translate</b> Translation #2</p>	<p>Aire Acondicionado PROAIR Modelo CR29 MANUAL DE INSTRUCCIONES NOTAS DE DISEÑO DEL <b>JUEGO DE JUNTAS DE MONTAJE</b></p> <ol style="list-style-type: none"> <li>1. <b>Juego de juntas</b> incluido. Aplique la junta a la parte trasera del acondicionador de aire antes de montarlo en el gabinete.</li> <li>2. Cable de servicio <b>terminado con la tapa de enchufe adecuada.</b></li> <li>3. Las dimensiones en milímetros [ ] son solo para referencia; <b>no convierta a dimensiones en pulgadas.</b></li> <li>4. Deje un <b>espacio libre</b> de al menos 4 pulgadas para la entrada y 6 pulgadas para la salida para un flujo de aire ambiental adecuado. Deje 20 pulgadas por encima del filtro para retirarlo.</li> </ol> <p><b>Juego de juntas de montaje</b> ref. 29-4100-02 según se aplica a parte trasera del CR29.</p>	<b><u>113</u></b>
<p><b>Yandex Translate</b> Translation #2</p>	<p>Acondicionador de Aire PROAIR Modelo CR29 MANUAL DE INSTRUCCIONES NOTAS DE DISEÑO DEL <b>KIT DE JUNTAS DE MONTAJE</b></p> <ol style="list-style-type: none"> <li>1. <b>Kit de juntas</b> incluido. Aplique la junta en la parte trasera del aire acondicionado antes de montarlo en la <b>carcasa.</b></li> <li>2. Cable de servicio <b>terminado con la tapa de enchufe adecuada.</b></li> <li>3. Las dimensiones en milímetros [ ] son solo de referencia; <b>no las convierta a dimensiones en pulgadas.</b></li> <li>4. Deje un <b>espacio libre</b> de al menos 4 pulgadas de entrada y 6 pulgadas de salida para un <b>flujo de aire ambiental adecuado.</b> Deje 20 pulgadas por encima del filtro para retirarlo.</li> </ol> <p><b>Kit de juntas de montaje</b> número de pieza 29-4100-02 aplicado a parte trasera del CR 29.</p>	<b><u>115</u></b>

### 1.3 Scientific Texts

#### Text #1

Retrieved from	Corpus	Amount of words
<b>Source Text</b>	The all-cancer mortality-to-incidence ratio for Latin America is 0·59, compared with 0·43 for the European Union and 0·35 in the USA. All-cancer mortality-to-incidence ratios also vary within Latin America, from 0·39 in Puerto Rico to 0·65 in Belize, Honduras, and Guatemala (figure 1A). Although breast and cervical cancer are the most common cancer types in women in Latin America (figure 1B and figure 2B), and prostate, stomach, and lung cancer are most common in men (figure 1C and figure 2C), our Commission highlights exceptions and unusual regional trends in cancer types.	
<b>Target Text</b> official translation by	La razón mortalidad/incidencia para todos los tipos de cáncer en América Latina es 0,59, en comparación con el 0,43 en la Unión Europea y 0,35 en los EE UU. Las razones de mortalidad/incidencia para todos los tipos de cáncer también varían dentro de América Latina, desde 0,39 en Puerto Rico a 0,65 en Belice, Honduras y Guatemala (figura 1A). A pesar de que el cáncer de mama y de cuello uterino son los tipos de cáncer más comunes en mujeres en América Latina (figura 1B y figura 2B), y el de próstata, estómago y el cáncer de pulmón son más comunes en los hombres (figura 1C y 2C), nuestra Comisión destaca ciertas particularidades y tendencias regionales atípicas en estos tipos de cáncer.	
<b>DeepL</b> Translation #1	La <b>relación</b> entre la mortalidad y la incidencia de todos los <b>cánceres</b> en América Latina es de <b>0-59</b> , en comparación con <b>0-43</b> en la Unión Europea y <b>0-35</b> en los Estados Unidos. La relación entre la mortalidad y la incidencia de todos los <b>cánceres</b> también varía dentro de América Latina, desde <b>0-39</b> en Puerto Rico hasta 0-65 en Belice, Honduras y Guatemala (figura 1A). Aunque el cáncer de mama y el cáncer de cuello uterino son los tipos de cáncer más comunes en las mujeres de América Latina (figura 1B y figura 2B), y el cáncer de próstata, estómago y pulmón son los más comunes en los hombres (figura 1C y figura 2C), nuestra Comisión destaca <b>excepciones</b> y tendencias regionales <b>inusuales</b> en los tipos de cáncer.	
<b>Google Translate</b> Translation	La razón de mortalidad a incidencia de todos los <b>cánceres</b> para América Latina es 0,59, en comparación con 0,43 para la Unión Europea y 0,35 en los EE. UU. Los índices de mortalidad/incidencia de todos los <b>cánceres</b> también varían dentro de	

#1	América Latina, de 0,39 en Puerto Rico a 0,65 en Belice, Honduras y Guatemala (figura 1A). Aunque el cáncer de mama y de cuello uterino son los tipos de cáncer más comunes en mujeres en América Latina (figura 1B y figura 2B), y el cáncer de próstata, estómago y pulmón son los más comunes en hombres (figura 1C y figura 2C), nuestra Comisión destaca <b>excepciones</b> y tendencias regionales <b>inusuales en los tipos de cáncer.</b>	
<b>Yandex Translate</b> Translation #1	La <b>relación</b> mortalidad / incidencia de todos los <b>cánceres</b> para América Latina es de 0,59, en comparación con 0,43 para la Unión Europea y 0,35 en los Estados Unidos. Las proporciones de mortalidad e incidencia de todos los <b>cánceres</b> también varían dentro de América Latina, de <b>0·39</b> en Puerto Rico a <b>0·65</b> en Belice, Honduras y Guatemala (figura 1A). Aunque el cáncer de mama y de cuello uterino son los tipos de cáncer más comunes en las mujeres de América Latina (figura 1B y figura 2B), y el cáncer de próstata, estómago y pulmón son los más comunes en los hombres (figura 1C y figura 2C), nuestra Comisión destaca <b>excepciones</b> y tendencias regionales inusuales en <b>los tipos de cáncer.</b>	

## Text #2

Retrieved from	Corpus	Amount of words
<b>Source Text</b>	The quality of honeybee ( <i>Apis mellifera</i> L.) products has long been evaluated basing on static properties that can be defined by chemical, physical, and instrumental analyses. Nowadays, it is generally understood that quality of honeybee products should be defined in terms of a variety of dynamic functions of their individual components. Royal jelly (RJ) has been accepted and broadly used as a health promoting substance. There is a growing scientific evidence to support the concept that the most attractive bioactive compounds of honeybee products are the proteins of RJ.	
<b>Target Text</b> official translation by	La calidad de los productos de la abeja melífera ( <i>Apis mellifera</i> L.) se han evaluado teniendo en cuenta sus propiedades estáticas, determinables mediante análisis químicos, físicos e instrumentales. En la actualidad, se acepta, en general, que la calidad de los productos <b>apícolas</b> habría que definirse sobre la base de las funciones dinámicas de cada uno de sus componentes. La jalea real siempre ha sido valorada y muchas veces utilizada como substancia saludable. Son cada día más los	

	testimonios científicos que apoyan la idea de que los componentes bioactivos más atractivos de los productos apícolas son las proteínas de la jalea real.	
<b>DeepL</b> Translation #2	La calidad de los productos de la abeja melífera ( <i>Apis mellifera</i> L.) se ha evaluado durante mucho tiempo basándose en propiedades estáticas que pueden definirse mediante análisis químicos, físicos e instrumentales. Hoy en día, se entiende generalmente que la calidad de los productos de la <b>abeja melífera</b> debe definirse en términos de una variedad de funciones dinámicas de sus componentes individuales. La jalea real ( <b>JR</b> ) ha sido aceptada y ampliamente utilizada como sustancia <b>promotora de la salud</b> . Cada vez hay más pruebas científicas que apoyan el concepto de que los compuestos bioactivos más atractivos de los productos de las <b>abejas melíferas</b> son las <b>proteínas</b> de la jalea real.	
<b>Google Translate</b> Translation #2	La calidad de los productos de la abeja melífera ( <i>Apis mellifera</i> L.) se ha evaluado durante mucho tiempo en función de las propiedades estáticas que se pueden definir mediante análisis químicos, físicos e instrumentales. Hoy en día, generalmente se entiende que la calidad de los productos de las <b>abejas</b> debe definirse en términos de una variedad de funciones dinámicas de sus componentes individuales. La jalea real ( <b>RJ</b> ) ha sido aceptada y ampliamente utilizada como sustancia <b>promotora de la salud</b> . Existe una creciente evidencia científica que respalda el concepto de que los compuestos bioactivos más atractivos de los productos de las abejas son las <b>proteínas de JR</b> .	
<b>Yandex Translate</b> Translation #2	La calidad de los productos de abejas melíferas ( <i>Apis mellifera</i> L.) se ha evaluado durante mucho tiempo basándose en propiedades estáticas que pueden definirse mediante análisis químicos, físicos e instrumentales. Hoy en día, generalmente se entiende que la calidad de los productos de <b>abejas melíferas</b> debe definirse en términos de una variedad de funciones dinámicas de sus componentes individuales. La jalea real ( <b>JRR</b> ) ha sido aceptada y ampliamente utilizada como una sustancia <b>promotora de la salud</b> . Existe una creciente evidencia científica que respalda el concepto de que los compuestos bioactivos más atractivos de los productos de las <b>abejas melíferas</b> son las <b>proteínas de RJ</b> .	

## 1.4 Literary texts

### Text #1

Retrieved from	Corpus <i>A darker shade of magic</i> (V. E. Schwab)	Amount of words
<b>Source Text</b>	<p>The room was <b>stiflingly warm</b>—the <b>windows latched</b> despite what looked like a lovely October day—and a fire raged <b>oppressively</b> in the hearth.</p> <p><b>George III</b> sat <b>beside it</b>, a robe dwarfing his <b>withered frame</b> and a tea tray <b>untouched</b> before his knees. When Kell came in, the king gripped the edges of his chair.</p> <p>"Who's there?" he <b>called out</b> without turning. "<b>Robbers? Ghosts?</b>"</p> <p>"I don't believe ghosts would answer, <b>Your Majesty</b>," said Kell, announcing himself.</p> <p>The <b>ailing</b> king broke into a <b>rotting grin</b>. "Master Kell," he said. "You've kept me waiting."</p> <p>"No more than a month," he said, stepping forward.</p> <p>King George <b>squinted</b> his blind eyes. "It's been longer, I'm sure."</p> <p>"I promise, it hasn't."</p> <p>"Maybe not for you," said the king. "But time isn't the same for the mad and the blind."</p>	141
<b>Target Text</b> official translation by Julieta Gorlero	<p>En la habitación hacía un <b>calor sofocante</b> —las ventanas <b>estaban cerradas</b> a pesar de lo que parecía ser un hermoso día de octubre—, y el fuego ardía de <b>manera asfixiante</b> en la chimenea.</p> <p><b>George III</b> estaba sentado <b>al lado de esta</b>, con una bata que empuñecía su <b>debilitado cuerpo</b> y una bandeja de té <b>intacta</b> frente a sus rodillas. Cuando Kell entró, el rey se agarró a los bordes de la silla.</p> <p>—¿Quién está ahí? —<b>vociferó</b>, sin darse la vuelta—. ¿<b>Ladrones?</b> ¿fantasmas?</p> <p>—No creo que los fantasmas fueran a responder, <b>Su Majestad</b> —dijo Kell, anunciándose.</p> <p>El <b>convaleciente</b> rey esbozó una sonrisa <b>putrefacta</b>. —Maestro Kell —dijo—, me has hecho esperar.</p> <p>—No más de un mes —respondió, dando un paso adelante. El rey George <b>entornó</b> sus ojos ciegos.</p> <p>—Ha pasado más tiempo, estoy seguro.</p> <p>—<b>Le</b> prometo que no.</p> <p>—Quizá no para ti —dijo el rey—. Pero el tiempo no es igual</p>	155

	para los locos y los ciegos.	
<b>DeepL</b> Translation #1	<p>La habitación era <b>asfixiantemente cálida</b> -las ventanas <b>estaban cerradas</b> a pesar de lo que parecía un hermoso día de octubre- y el fuego ardía <b>opresivamente</b> en la chimenea.</p> <p><b>Jorge III</b> estaba sentado <b>junto a él</b>, con una bata que empequeñecía su <b>marchita figura</b> y una bandeja de té <b>sin tocar</b> ante sus rodillas. Cuando Kell entró, el rey se agarró a los bordes de su silla.</p> <p>"¿Quién está ahí?", <b>gritó</b> sin volverse. "¿<b>Robadores?</b> ¿Fantasmas?"</p> <p>"No creo que los fantasmas respondan, <b>Majestad</b>", dijo Kell, anunciándose.</p> <p>El rey <b>enfermo</b> rompió a sonreír con una sonrisa de <b>podredumbre</b>. "Maestro Kell", dijo. "Me has hecho esperar".</p> <p>"No más de un mes", dijo, dando un paso adelante.</p> <p>El rey Jorge <b>entrecerró</b> sus ojos ciegos. "Ha sido más tiempo, estoy seguro".</p> <p>"Te prometo que no".</p> <p>"Quizá no para ti", dijo el rey. "Pero el tiempo no es el mismo para los locos y los ciegos".</p>	<u><b>149</b></u>
<b>Google Translate</b> Translation #1	<p>La habitación estaba <b>sofocantemente calurosa</b> —las ventanas <b>estaban cerradas</b> a pesar de lo que parecía ser un hermoso día de octubre— y un fuego ardía <b>opresivamente</b> en la chimenea.</p> <p><b>Jorge III</b> se sentó <b>junto a él</b>, con una túnica que empequeñecía su <b>cuerpo marchito</b> y una bandeja de té <b>intacta</b> delante de sus rodillas. Cuando entró Kell, el rey se agarró a los bordes de su silla.</p> <p>"¿Quién está ahí?" <b>gritó</b> sin volverse. "¿<b>Ladrones?</b> ¿Fantasmas?"</p> <p>"No creo que los fantasmas respondan, <b>Su Majestad</b>", dijo Kell, anunciándose.</p> <p>El rey <b>enfermo</b> rompió en una sonrisa <b>podrida</b>. —Maestro Kell —dijo—. Me has hecho esperar.</p> <p>"No más de un mes", dijo, dando un paso adelante.</p> <p>El rey Jorge <b>entrecerró</b> sus ojos ciegos. "Ha pasado más tiempo, estoy seguro".</p> <p>"<b>Lo</b> prometo, no lo ha hecho".</p> <p>"Tal vez no para ti", dijo el rey. "Pero el tiempo no es el mismo para los locos y los ciegos."</p>	<u><b>151</b></u>
<b>Yandex Translate</b> Translation #1	<p>La habitación estaba <b>sofocantemente caliente</b>, las ventanas <b>se cerraban</b> a pesar de lo que parecía un hermoso día de octubre, y un fuego ardía <b>opresivamente</b> en el hogar.</p> <p><b>Jorge III</b> se sentó <b>a su lado</b>, con una túnica que empequeñecía su <b>marco marchito</b> y una bandeja de té <b>intacta</b> ante sus rodillas. Cuando Kelly entró, el rey se agarró a los bordes de su silla.</p>	<u><b>151</b></u>

	<p>"¿Quién está ahí?- <b>gritó</b> sin darse la vuelta. "¿<b>Ladrones?</b> ¿Fantasmas?"</p> <p><u>"Yo no creo en fantasmas iba a responder, <b>Su Majestad</b>"</u>, dijo Kell, anunciándose.</p> <p>El rey <b>enfermo</b> esbozó una sonrisa <b>podrida</b>. "Maestro Kell", dijo. "Me has hecho esperar."</p> <p>"No más de un mes", dijo, dando un paso adelante.</p> <p>El rey Jorge <b>entrecerró</b> los ojos ciegos. "Ha pasado más tiempo, estoy seguro."</p> <p>"<b>Lo</b> prometo, no lo ha hecho".</p> <p>- Quizá no para ti-dijo el rey -. "Pero el tiempo no es el mismo para los locos y los ciegos."</p>	
--	---	--

## Text #2

Retrieved from	Corpus <i>Home Body</i> (Rupi Kaur)	Amount of words
<b>Source Text</b>	<p>sex is a way for people to <b>transcend</b> into each other and <b>come apart</b> a <b>beautiful earthy expression</b> but for me sex was my girlhood <b>dragged to death</b> he said we were going to play then he always locked the door always <b>chose</b> the game when i told him to stop he said <b>i was asking for it</b> but what did i know about involuntary orgasms and <b>agency</b> and consent at <b>age 7. 8. 9. and 10.</b> i'll be quiet when <u>we can</u> say <i>sexual assault</i> and they stop screaming <i>liar</i></p>	110

	<p>depression is silent  you never <b>hear it coming</b>  and suddenly it's  the loudest voice in your head</p>	
<p><b>Target Text</b>  official translation  by  Elvira Sastre</p>	<p>el sexo es <b>la manera que tiene la gente</b>  de <b>desbordarse</b> el uno en el otro  y de <b>desprenderse</b>  una <b>hermosa y lasciva</b> expresión <b>terrenal</b>  pero para mí  el sexo fue mi infancia  <b>lanzada hacia</b> la muerte  él dijo  que íbamos a jugar  y entonces siempre cerraba la puerta  siempre <b>elegía</b> el juego  cuando le dije que parase  respondió que yo se lo <b>estaba pidiendo</b>  pero qué sabía yo  de los orgasmos involuntarios  y de la <b>voluntad</b>  y del consentimiento  a los <b>siete. ocho. nueve. y diez años</b>  me callaré cuando  <u>podamos</u> decir <b>agresión sexual</b>  y ellos  dejen de gritar <b>mentirosa</b></p> <p>la depresión es silenciosa  nunca la <b>oyes llegar</b>  y de repente es  la voz más fuerte en tu cabeza</p>	120
<p><b>DeepL</b>  Translation  #2</p>	<p>el sexo es <b>una forma de que las personas</b>  <b>trascender</b> en el otro  y <b>se separen</b>  una <b>hermosa</b> expresión <b>terrenal</b>  pero para mí  el sexo fue mi infancia</p>	<u>116</u>

	<p><b>arrastrada</b> a la muerte  dijo  que íbamos a jugar  luego siempre cerraba la puerta con llave  siempre <b>elegía</b> el juego  cuando le dije que parara  dijo que yo me lo <b>estaba buscando</b>  pero qué sabía yo  sobre los orgasmos involuntarios  y <b>la agencia</b>  y el consentimiento  a la edad de <b>7 años. 8. 9. y 10.</b>  me callaré cuando  <u>podamos</u> decir <b>agresión sexual</b>  y ellos  dejen de gritar <b>mentiroso</b></p> <p>la depresión es silenciosa  nunca la <b>oyes venir</b>  y de repente es  la voz más fuerte en tu cabeza</p>	
<p><b>Google</b>  <b>Translate</b>  Translation  #2</p>	<p>El sexo es una <b>forma de que las personas</b>  <b>trascender</b> el uno al otro  y <b>desmoronarse</b>  una <b>hermosa</b> expresión <b>terrenal</b>  pero para mi  el sexo fue mi infancia  <b>arrastrado</b> a la muerte  él dijo  íbamos a jugar  entonces siempre cerraba la puerta  siempre <b>elige</b> el juego  cuando le dije que parara  dijo que yo lo <b>estaba pidiendo</b>  pero que sabía yo  sobre orgasmos involuntarios  y <b>agencia</b>  y consentimiento  a los <b>7, 8, 9 y 10 años.</b></p>	<p><b><u>108</u></b></p>

	<p>me callaré cuando  <u>podemos</u> decir <b>asalto sexual</b>  y ellos  deja de gritar <b>mentiroso</b></p> <p>la depresión es silenciosa  nunca lo <b>escuchas venir</b>  y de repente es  la voz más fuerte en tu cabeza</p>	
<p><b>Yandex</b>  <b>Translate</b>  Translation  #2</p>	<p>el sexo es una <b>forma de que las personas</b>  <b>trascender</b> el uno en el otro  y <b>se separan</b>  una <b>hermosa</b> expresión <b>terrosa</b>  pero para mí  el sexo era mi infancia  <b>arrastrado</b> a la muerte  dijo  íbamos a jugar  luego siempre cerraba la puerta con llave  <b>elige</b> siempre el juego  cuando le dije que parara  dijo que lo <b>estaba pidiendo</b>  pero ¿qué sabía yo  acerca de los orgasmos involuntarios  y <b>agencia</b>  y consentimiento  a los <b>7 años. 8. 9. y 10.</b>  estaré callado cuando  <u>podemos</u> decir <b>agresión sexual</b>  y ellos  deja de gritar <b>mentiroso</b></p> <p>la depresión es silenciosa  nunca lo <b>oyes venir</b>  y de repente es  la voz más fuerte de tu cabeza</p>	<p><u><b>112</b></u></p>

## 2 Survey Model

### 2.1 Phase 1: Parallel corpus of informative text

#### Stage 1: Translator 1

Traductor 1: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 1
<p><b>Targeted for speaking up</b></p> <p><b>Some have been abducted, part of</b> pattern of enforced disappearances which “continue unabated in Libya”, Mr. Aujjar said, <b>pointing</b> to Member of <b>Parliament</b> Sihem Sirgiwa, who was <b>taken</b> in 2019.</p>	<p><b>Perseguidos por hablar</b></p> <p><b>Algunas han sido secuestradas, lo que forma parte</b> de un patrón de desapariciones forzadas que "continúa sin cesar en Libia", dijo el Sr. Aujjar, <b>señalando</b> a la <b>diputada</b> Sihem Sirgiwa, que fue <b>secuestrada</b> en 2019.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stage 2: Translator 2

Traductor 2: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 2
<p><b>Targeted for speaking up</b></p> <p><b>Some have been abducted, part of</b> pattern of enforced disappearances which “continue unabated in Libya”, Mr. Aujjar said, <b>pointing</b> to Member of <b>Parliament</b> Sihem Sirgiwa, who was <b>taken</b> in 2019.</p>	<p><b>Dirigido por hablar</b></p> <p><b>Algunos han sido secuestrados, parte del</b> patrón de desapariciones forzadas que “continúan sin cesar en Libia”, dijo Aujjar, <b>señalando</b> al miembro del <b>parlamento</b> Sihem Sirgiwa, quien fue <b>secuestrado</b> en 2019.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Stage 3: Translator 3

Traductor 3: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 3
<p><b>Targeted for speaking up</b></p> <p><b>Some have been abducted, part of</b> pattern of enforced disappearances which “continue unabated in Libya”, Mr. Aujjar said, <b>pointing</b> to Member of <b>Parliament</b> Sihem Sirgiwa, who was <b>taken</b> in 2019.</p>	<p><b>Dirigido a alzar la voz</b></p> <p><b>Algunos han sido secuestrados, parte de</b> un patrón de desapariciones forzadas que "continúa sin cesar en Libia", dijo Aujjar, <b>señalando</b> al miembro del <b>Parlamento</b> Sihem Sirgiwa, que fue <b>capturado</b> en 2019.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stage 4: Translator 4

Traductor 4: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 4
<p><b>Targeted for speaking up</b></p> <p><b>Some have been abducted, part of</b> pattern of enforced disappearances which “continue unabated in Libya”, Mr. Aujjar said, <b>pointing</b> to Member of <b>Parliament</b> Sihem Sirgiwa, who was <b>taken</b> in 2019.</p>	<p><b>Mujeres y niñas en un país en crisis desde 2011</b></p> <p><b>Algunas fueron secuestradas</b> en el <b>marco del</b> patrón de desapariciones forzadas que “no cesa en Libia”, enfatizó Aujjar, <b>citando</b> el caso de la <b>parlamentaria</b> Sihem Sirgiwa, <b>raptada</b> en 2019.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Stage 5: Rating scale

Califica las siguientes traducciones en una escala de 1 a 7, donde 1 sea "mala" y 7 "excelente"

Traductor 1	Traductor 2
<p><b>Perseguidos por hablar</b></p> <p>Algunas han sido secuestradas, lo que forma parte de un patrón de desapariciones forzadas que "continúa sin cesar en Libia", dijo el Sr. Aujjar, señalando a la diputada Sihem Sirgiwa, que fue secuestrada en 2019.</p>	<p><b>Dirigido por hablar</b></p> <p>Algunos han sido secuestrados, parte del patrón de desapariciones forzadas que "continúan sin cesar en Libia", dijo Aujjar, señalando al miembro del parlamento Sihem Sirgiwa, quien fue secuestrado en 2019.</p>
Traductor 3	Traductor 4
<p><b>Dirigido a alzar la voz</b></p> <p>Algunos han sido secuestrados, parte de un patrón de desapariciones forzadas que "continúa sin cesar en Libia", dijo Aujjar, señalando al miembro del Parlamento Sihem Sirgiwa, que fue capturado en 2019.</p>	<p><b>Mujeres y niñas en un país en crisis desde 2011</b></p> <p>Algunas fueron secuestradas en el marco del patrón de desapariciones forzadas que "no cesa en Libia", enfatizó Aujjar, citando el caso de la parlamentaria Sihem Sirgiwa, raptada en 2019.</p>

	1	2	3	4	5	6	7
Traductor 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 2.2 Phase 2: Parallel corpus of technical text

### Stage 1: Translator 1

Traductor 1: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 1
04) Link the units as shown in Fig. 05. Connect a <b>light controller</b> to the first unit's DMX <b>"in"</b> socket, using a DMX cable. Connect the first unit's <b>"out"</b> socket with the second unit's <b>"in"</b> socket, using a DMX cable. Repeat this process to <b>link</b> the rest of the units.	04) <b>Conecte</b> las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz</b> a la toma DMX <b>"in"</b> de la primera unidad, utilizando un cable DMX. Conecte la toma <b>"out"</b> de la primera unidad con la toma <b>"in"</b> de la segunda unidad, utilizando un cable DMX. Repita este proceso para <b>conectar</b> el resto de las unidades.

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stage 2: Translator 2

Traductor 2: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 2
<p>04) Link the units as shown in Fig. 05. Connect a <b>light controller</b> to the first unit's DMX <b>"in"</b> socket, using a DMX cable. Connect the first unit's <b>"out"</b> socket with the second unit's <b>"in"</b> socket, using a DMX cable. Repeat this process to <b>link</b> the rest of the units.</p>	<p>04) <b>Conecte</b> las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz</b> a la toma DMX <b>"in"</b> de la primera unidad, usando un cable DMX. Conecte el enchufe de <b>"salida"</b> de la primera unidad con el enchufe de <b>"entrada"</b> de la segunda unidad mediante un cable DMX. Repita este proceso para <b>vincular</b> el resto de las unidades.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Stage 3: Translator 3

Traductor 3: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 3
04) Link the units as shown in Fig. 05. Connect a <b>light controller</b> to the first unit's DMX <b>"in"</b> socket, using a DMX cable. Connect the first unit's <b>"out"</b> socket with the second unit's <b>"in"</b> socket, using a DMX cable. Repeat this process to <b>link</b> the rest of the units.	04) <b>Enlazar</b> las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz</b> a la toma DMX <b>"in"</b> de la primera unidad, utilizando un cable DMX. Conecte la toma <b>"out "</b> de la primera unidad con la toma <b>"in"</b> de la segunda unidad, utilizando un cable DMX. Repita este proceso para <b>vincular</b> el resto de las unidades.

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stage 4: Translator 4

Traductor 4: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 4
<p>04) Link the units as shown in Fig. 05. Connect a <b>light controller</b> to the first unit's DMX "<b>in</b>" socket, using a DMX cable. Connect the first unit's "<b>out</b>" socket with the second unit's "<b>in</b>" socket, using a DMX cable. Repeat this process to <b>link</b> the rest of the units.</p>	<p>04) <b>Conecte</b> las unidades entre ellas como se indica en la Fig. 05. Conecte un <b>controlador de iluminación</b> a la toma <b>IN (entrada)</b> DMX del primer dispositivo mediante un cable DMX. Conecte un cable DMX que vaya desde el conector DMX <b>OUT (salida)</b> de la primera unidad al conector DMX <b>IN (entrada)</b> de la segunda unidad. Repita este proceso para <b>interconectar</b> el resto de las unidades.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Stage 5: Rating scale

Califica las siguientes traducciones en una escala de 1 a 7, donde 1 sea "mala" y 7 "excelente"

Traductor 1	Traductor 2
04) <b>Conecte</b> las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz</b> a la toma DMX <b>"in"</b> de la primera unidad, utilizando un cable DMX. Conecte la toma <b>"out"</b> de la primera unidad con la toma <b>"in"</b> de la segunda unidad, utilizando un cable DMX. Repita este proceso para <b>conectar</b> el resto de las unidades.	04) <b>Conecte</b> las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz</b> a la toma DMX <b>"in"</b> de la primera unidad, usando un cable DMX. Conecte el enchufe de <b>"salida"</b> de la primera unidad con el enchufe de <b>"entrada"</b> de la segunda unidad mediante un cable DMX. Repita este proceso para <b>vincular</b> el resto de las unidades.
Traductor 3	Traductor 4
04) <b>Enlazar</b> las unidades como se muestra en la Fig. 05. Conecte un <b>controlador de luz</b> a la toma DMX <b>"in"</b> de la primera unidad, utilizando un cable DMX. Conecte la toma <b>"out "</b> de la primera unidad con la toma <b>"in"</b> de la segunda unidad, utilizando un cable DMX. Repita este proceso para <b>vincular</b> el resto de las unidades.	04) <b>Conecte</b> las unidades entre ellas como se indica en la Fig. 05. Conecte un <b>controlador de iluminación</b> a la toma <b>IN (entrada)</b> DMX del primer dispositivo mediante un cable DMX. Conecte un cable DMX que vaya desde el conector DMX <b>OUT (salida)</b> de la primera unidad al conector DMX <b>IN (entrada)</b> de la segunda unidad. Repita este proceso para <b>interconectar</b> el resto de las unidades.

	1	2	3	4	5	6	7
Traductor 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 2.3 Phase 3: Parallel corpus of scientific text

### Stage 1: Translator 1

Traductor 1: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 1
A <b>staggering 43 percent</b> of children under five years of age— <b>an estimated 250 million</b> —living in <b>low- and middle-income</b> countries are at risk of <b>suboptimal</b> development due to poverty and stunting.	Un <b>asombroso 43%</b> de los niños menores de cinco años <b>-unos 250 millones-</b> que viven en países de <b>ingresos bajos y medios de ingresos bajos y medios</b> corren el riesgo de no alcanzar un desarrollo <b>óptimo</b> debido a la pobreza y el retraso en el crecimiento.

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stage 2: Translator 2

Traductor 2: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 2
<p><b>A staggering 43 percent</b> of children under five years of age—<b>an estimated 250 million</b>—living in <b>low- and middle-income</b> countries are at risk of <b>suboptimal</b> development due to poverty and stunting.</p>	<p>Un <b>asombroso 43 por ciento</b> de los niños menores de cinco años, <b>aproximadamente 250 millones</b>, que viven en hogares de ingresos <b>bajos y medianos</b>. los países corren el riesgo de un desarrollo <b>subóptimo</b> debido a la pobreza y el retraso del crecimiento.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Stage 3: Translator 3

Traductor 3: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 3
A <b>staggering 43 percent</b> of children under five years of age— <b>an estimated 250 million</b> —living in <b>low- and middle-income</b> countries are at risk of <b>suboptimal</b> development due to poverty and stunting.	Un <b>asombroso 43 por ciento</b> de los niños menores de cinco años— <b>se estima que 250 millones</b> —que viven en países de ingresos <b>bajos y medianos</b> corren el riesgo de tener un desarrollo <b>subóptimo</b> debido a la pobreza y el retraso en el crecimiento.

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stage 4: Translator 4

Traductor 4: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 4
<p><b>A staggering 43 percent</b> of children under five years of age—<b>an estimated 250 million</b>—living in <b>low- and middle-income</b> countries are at risk of <b>suboptimal</b> development due to poverty and stunting.</p>	<p>Un <b>alarmante 43%</b> de los niños menores de cinco años que viven en países de ingresos <b>bajos y medianos (en total, unos 250 millones de niños)</b> están en riesgo de tener un desarrollo <b>inadecuado</b> a causa de la pobreza y el retraso del crecimiento.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Stage 5: Rating scale

Califica las siguientes traducciones en una escala de 1 a 7, donde 1 sea "mala" y 7 "excelente"

Traductor 1	Traductor 2
Un <b>asombroso 43%</b> de los niños menores de cinco años <b>-unos 250 millones-</b> que viven en países de <b>ingresos bajos y medios de ingresos bajos y medios</b> corren el riesgo de no alcanzar un desarrollo <b>óptimo</b> debido a la pobreza y el retraso en el crecimiento.	Un <b>asombroso 43 por ciento</b> de los niños menores de cinco años, <b>aproximadamente 250 millones,</b> que viven en hogares de ingresos <b>bajos y medianos. los</b> países corren el riesgo de un desarrollo <b>subóptimo</b> debido a la pobreza y el retraso del crecimiento.
Traductor 3	Traductor 4
Un <b>asombroso 43 por ciento</b> de los niños menores de cinco años— <b>se estima que 250 millones</b> —que viven en países de ingresos <b>bajos y medianos</b> corren el riesgo de tener un desarrollo <b>subóptimo</b> debido a la pobreza y el retraso en el crecimiento.	Un <b>alarmante 43%</b> de los niños menores de cinco años que viven en países de ingresos <b>bajos y medianos (en total, unos 250 millones de niños)</b> están en riesgo de tener un desarrollo <b>inadecuado</b> a causa de la pobreza y el retraso del crecimiento.

	1	2	3	4	5	6	7
Traductor 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 2.4 Phase 4: Parallel corpus of literary text

### Stage 1: Translator 1

Traductor 1: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 1
<p><b>"You still up for the movie?"</b>            "Yeah, sure, I'll be there in a minute."            "Maybe he won't make us watch <b>Home Alone</b> for the <b>twentieth time</b>," Mom <b>mutters</b>, mostly to herself I think.</p>	<p><b>"¿Aún te apuntas al cine?"</b>            "Sí, claro, voy en un momento".            "Quizá no nos haga ver <b>Solo en casa</b> por <b>duodécima vez</b>", <b>murmura mamá</b>.  <b>vez</b>", <b>murmura mamá</b>, creo que más bien para sí misma.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stage 2: Translator 2

Traductor 2: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 2
<p><b>“You still up for the movie?”</b>                      “Yeah, sure, I’ll be there in a minute.”                      “Maybe he won’t make us watch <b>Home Alone</b> for the <b>twentieth time</b>,” Mom <b>mutters</b>, mostly to herself I think.</p>	<p><b>“¿Todavía estás listo para la película?”</b>                      “Sí, claro, estaré allí en un minuto”.                      “Tal vez no nos haga ver <b>Solo en casa por veinte años</b>. <b>la décima vez</b> —<b>murmura</b> mamá, más que nada para sí misma, creo.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Stage 3: Translator 3

Traductor 3: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 3
<p><b>“You still up for the movie?”</b>            “Yeah, sure, I’ll be there in a minute.”            “Maybe he won’t make us watch <b>Home Alone</b> for the <b>twentieth time</b>,” Mom <b>mutters</b>, mostly to herself I think.</p>	<p><b>“¿Todavía estás listo para la película?”</b>            “Sí, claro, estaré allí en un minuto.”            “Tal vez no nos haga mirar a <b>Casa Solos por la noche-es hora de ti</b>”, <b>murmura</b> mamá, principalmente para sí misma, creo.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Stage 4: Translator 4

Traductor 4: Las siguientes preguntas serán con respecto a este corpus paralelo

Texto Origen	Traductor 4
<p><b>“You still up for the movie?”</b>                      “Yeah, sure, I’ll be there in a minute.”                      “Maybe he won’t make us watch <b>Home Alone</b> for the <b>twentieth time</b>,” Mom <b>mutters</b>, mostly to herself I think.</p>	<p>—. <b>¿Todavía tienes ganas de ver la película?</b>                      —Sí, claro. Dame un minuto.                      —Quizá no nos hará ver <b>Mi pobre angelito por vigésima ocasión</b> —susurra mi madre, creo que más que nada para ella misma.</p>

	Muy en desacuerdo	En desacuerdo	Ni de acuerdo, ni en desacuerdo	De acuerdo	Muy de acuerdo
¿Esta traducción tiene más de un error?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Se transfirió correctamente el mensaje del Texto Original?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Comprendiste en su totalidad el texto traducido?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿La redacción de la traducción es poco natural en español?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Esta traducción parece hecha por un humano?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Stage 5: Rating scale

Califica las siguientes traducciones en una escala de 1 a 7, donde 1 sea "mala" y 7 "excelente"

Traductor 1	Traductor 2
<p>"¿Aún te apuntas al cine?"            "Sí, claro, voy en un momento".            "Quizá no nos haga ver <b>Solo en casa por duodécima vez</b>", <b>murmura mamá.</b>  <b>vez</b>", <b>murmura mamá</b>, creo que más bien para sí misma.</p>	<p>"¿<b>Todavía estás listo para la película?</b>"            "Sí, claro, estaré allí en un minuto".            "Tal vez no nos haga ver <b>Solo en casa por veinte años.</b>  <b>la décima vez</b> —<b>murmura mamá</b>, más que nada para sí misma, creo.</p>
Traductor 3	Traductor 4
<p>"¿<b>Todavía estás listo para la película?</b>"            "Sí, claro, estaré allí en un minuto."            "Tal vez no nos haga mirar <b>a Casa Solos por la noche-es hora de ti</b>", <b>murmura mamá</b>, principalmente para sí misma, creo.</p>	<p>—. ¿<b>Todavía tienes ganas</b> de ver la <b>película?</b>            —Sí, claro. Dame un minuto.            —Quizá no nos hará ver <b>Mi pobre angelito por vigésima ocasión</b> —<b>susurra mi madre</b>, creo que más que nada para ella misma.</p>

	1	2	3	4	5	6	7
Traductor 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traductor 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 2.5 Phase 5: Machine translators questions

Con respecto a los traductores automáticos

	Definitivamente no	Probablemente no	Neutral	Probablemente sí	Definitivan sí
¿Utilizarías los traductores automáticos como herramienta de traducción?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Utilizarías traductor automático en el ámbito laboral?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Estas de acuerdo con el uso de traductores automáticos en situaciones informales (redes sociales, noticias, blogs, etc)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
¿Recomendarías el uso de traductores automáticos?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 3 Survey Results

#### Survey Results: informative text

<i>strongly disagree</i>	<i>disagree</i>	<i>neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>
--------------------------	-----------------	-----------------------------------	--------------	-----------------------

#### Translator 1 (DeepL)

Does the translation have more than one error?	6%	16%	21%	43%	14%
Was the source text message transferred successfully?	0%	12%	17%	52%	19%
Did you fully understand the translated text?	2%	12%	21%	40%	25%
Was the writing in Spanish unnatural?	7%	18%	24%	39%	12%
Was the translation made by a human?	6%	28%	12%	28%	26%

#### Translator 2 (Google)

Does the translation have more than one error?	2%	13%	21%	46%	18%
Was the source text message transferred successfully?	6%	25%	28%	26%	15%
Did you fully understand the translated text?	2%	16%	25%	42%	15%
Was the writing in Spanish unnatural?	3%	21%	22%	37%	17%
Was the translation made by a human?	9%	24%	22%	33%	12%

#### Translator 3 (Yandex)

Does the translation have more than one error?	3%	11%	21%	49%	16%
--	----	-----	-----	-----	-----

Was the source text message transferred successfully?	0%	28%	24%	39%	9%
Did you fully understand the translated text?	0%	12%	30%	43%	15%
Was the writing in Spanish unnatural?	5%	16%	39%	27%	13%
Was the translation made by a human?	9%	22%	40%	23%	6%

**Translator 4 (Human Translator)**

Does the translation have more than one error?	11%	25%	25%	21%	18%
Was the source text message transferred successfully?	2%	16%	12%	31%	39%
Did you fully understand the translated text?	2%	12%	10%	27%	49%
Was the writing in Spanish unnatural?	24%	31%	18%	16%	11%
Was the translation made by a human?	5%	5%	13%	34%	43%

**Survey Results: technical text**

<i>strongly disagree</i>	<i>disagree</i>	<i>neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>
--------------------------	-----------------	-----------------------------------	--------------	-----------------------

**Translator 1 (DeepL)**

Does the translation have more than one error?	6%	18%	30%	34%	12%
Was the source text message transferred successfully?	0%	15%	22%	46%	17%
Did you fully understand the translated text?	0%	20%	25%	43%	12%

Was the writing in Spanish unnatural?	3%	34%	30%	27%	6%
Was the translation made by a human?	5%	15%	24%	40%	16%

Translator 2 (Google)
-----------------------

Does the translation have more than one error?	6%	16%	30%	39%	9%
Was the source text message transferred successfully?	2%	10%	24%	51%	13%
Did you fully understand the translated text?	3%	9%	24%	48%	16%
Was the writing in Spanish unnatural?	6%	34%	17%	37%	6%
Was the translation made by a human?	5%	13%	24%	39%	19%

Translator 3 (Yandex)
-----------------------

Does the translation have more than one error?	12%	12%	31%	36%	9%
Was the source text message transferred successfully?	0%	18%	31%	36%	15%
Did you fully understand the translated text?	0%	22%	22%	45%	11%
Was the writing in Spanish unnatural?	5%	28%	22%	37%	8%
Was the translation made by a human?	3%	24%	24%	31%	18%

Translator 4 (Human Translator)
---------------------------------

Does the translation have more than one error?	17%	28%	28%	21%	6%
Was the source text message transferred successfully?	0%	6%	22%	30%	42%
Did you fully understand the translated text?	0%	9%	13%	36%	42%

Was the writing in Spanish unnatural?	30%	37%	15%	13%	5%
Was the translation made by a human?	0%	12%	9%	31%	48%

**Survey Results: scientific text**

<i>strongly disagree</i>	<i>disagree</i>	<i>neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>
--------------------------	-----------------	-----------------------------------	--------------	-----------------------

**Translator 1 (DeepL)**

Does the translation have more than one error?	2%	9%	15%	52%	22%
Was the source text message transferred successfully?	3%	34%	30%	24%	9%
Did you fully understand the translated text?	0%	27%	37%	24%	12%
Was the writing in Spanish unnatural?	5%	16%	19%	51%	9%
Was the translation made by a human?	10%	27%	30%	28%	5%

**Translator 2 (Google)**

Does the translation have more than one error?	3%	14%	16%	49%	18%
Was the source text message transferred successfully?	6%	28%	30%	30%	6%
Did you fully understand the translated text?	3%	22%	28%	39%	8%
Was the writing in Spanish unnatural?	6%	9%	28%	52%	5%
Was the translation made by a human?	9%	19%	36%	25%	11%

Translator 3 (Yandex)

Does the translation have more than one error?	4%	24%	27%	42%	3%
Was the source text message transferred successfully?	2%	7%	21%	49%	21%
Did you fully understand the translated text?	0%	2%	16%	60%	22%
Was the writing in Spanish unnatural?	8%	31%	34%	21%	6%
Was the translation made by a human?	3%	9%	31%	39%	18%

Translator 4 (Human Translator)

Does the translation have more than one error?	25%	25%	23%	24%	3%
Was the source text message transferred successfully?	0%	6%	14%	37%	43%
Did you fully understand the translated text?	0%	1%	15%	42%	42%
Was the writing in Spanish unnatural?	33%	40%	16%	11%	0%
Was the translation made by a human?	2%	4%	15%	37%	42%

**Survey Results: literary text**

<i>strongly disagree</i>	<i>disagree</i>	<i>neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>
--------------------------	-----------------	-----------------------------------	--------------	-----------------------

Translator 1 (DeepL)

Does the translation have more than one error?	3%	9%	15%	45%	28%
--	----	----	-----	-----	-----

Was the source text message transferred successfully?	11%	28%	34%	22%	5%
Did you fully understand the translated text?	7%	24%	33%	30%	6%
Was the writing in Spanish unnatural?	2%	21%	19%	45%	13%
Was the translation made by a human?	21%	25%	30%	16%	8%

#### Translator 2 (Google)

Does the translation have more than one error?	0%	5%	10%	52%	33%
Was the source text message transferred successfully?	24%	36%	16%	19%	5%
Did you fully understand the translated text?	17%	34%	25%	19%	5%
Was the writing in Spanish unnatural?	5%	7%	16%	45%	27%
Was the translation made by a human?	33%	27%	24%	12%	4%

#### Translator 3 (Yandex)

Does the translation have more than one error?	2%	6%	10%	46%	36%
Was the source text message transferred successfully?	25%	36%	25%	14%	0%
Did you fully understand the translated text?	25%	30%	25%	14%	6%
Was the writing in Spanish unnatural?	0%	9%	17%	43%	31%
Was the translation made by a human?	31%	31%	18%	12%	8%

#### Translator 4 (Human Translator)

Does the translation have more than one error?	30%	34%	18%	9%	9%
--	-----	-----	-----	----	----

Was the source text message transferred successfully?	0%	0%	8%	43%	49%
Did you fully understand the translated text?	1%	3%	6%	27%	63%
Was the writing in Spanish unnatural?	40%	34%	15%	6%	5%
Was the translation made by a human?	2%	4%	10%	33%	51%

**Survey Results: machine translators questions**

<i>Definitely not</i>	<i>Probably not</i>	<i>Neutral</i>	<i>Probably yes</i>	<i>Definitely yes</i>
-----------------------	---------------------	----------------	---------------------	-----------------------

Would you use machine translator as a translation tool?	19%	25%	34%	17%	5%
Would you use machine translator in the professional area?	34%	42%	12%	12%	0%
Do you agree with the use of machine translators in informal situations (social medias, news, blogs)?	6%	14%	34%	34%	12%
Would you recommend the use of machine translators?	18%	30%	37%	13%	2%

## 4 Survey Validation

RÚBRICA DE EVALUACIÓN DE ENCUESTA:

Nombre Evaluador(a): Katterine Pavez Bravo

Universidad a la que pertenece: Departamento de idiomas

Asignatura que imparte o especialidad afin a la evaluación de esta rúbrica: Trabajo de grado

Estimado(a) evaluador:

La siguiente rúbrica tiene por propósito evaluar la siguiente encuesta

<https://forms.gle/HgErcU7tUYMW6g66> la cual ha sido creada para conocer las preferencias de estudiantes sobre propuestas de diferentes traductores automáticos.

Este cuestionario es parte de un trabajo para obtener el grado de licenciado en idioma inglés y título Traductor inglés-español.

A continuación, se presenta la siguiente rúbrica para que pueda evaluar el instrumento. marque con una X la alternativa que considere adecuada para la evaluación.

	RÚBRICA EVALUACIÓN ENCUESTA	DEFICIENTE	SATISFACTORIO	MUV SATISFACTORIO
01	La encuesta entrega una introducción sobre la finalidad del estudio.			SI
02	La encuesta tiene secciones para analizar edad, nivel educacional y nivel de inglés de los encuestados.			SI
03	Las preguntas ofrecen contenidos, imágenes, enlaces u otros que apoyen la entrega de una opción por parte del encuestado			SI
04	La encuesta contiene los textos separados por nivel de especialidad (divulgativo, científico, técnico, etc.)			SI
05	Todas las preguntas y respuestas están enunciadas de forma muy clara y concisa.			SI
06	Los contenidos y secciones de la encuesta son adecuados para obtener resultados que entreguen preferencias de la mejor traducción.			SI

OBSERVACIONES
Se sugiere en el inicio, agregar mayúscula al título completo donde se escribe el título profesional.
Califica las siguientes traducciones en una escala de 1 a 7, donde 1 sea "mala" y 7 "excelente". Me parece bien, solo que uno por descarte sabe que el 4 es de aprobación, quizás se podría agregar que se considera al 4.0 como nota mínima de aprobación.
La encuesta esta ok, solo que es larga, quizás agregar un contador del porcentaje de avance sirva para que el que responde sepa cuando le falta, si es que por necesidades del estudio no se puede reducir su duración.

Katterine Pavez Bravo

\_\_\_\_\_  
Firma digital evaluador externo

RÚBRICA DE EVALUACIÓN DE ENCUESTA:

Nombre Evaluador(a): Víctor Cámara Cámara \_\_\_\_\_

Universidad a la que pertenece: Universidad de Tarapacá

Asignatura que imparte o especialidad afin a la evaluación de esta rúbrica: Usos y Manejo de Herramientas Tecnológicas, SE Herramientas Informáticas y Traducción Autónoma

Estimado(a) evaluador:

La siguiente rúbrica tiene por propósito evaluar la siguiente encuesta <https://forms.gle/HgErcU7tUYYMW6g66> la cual ha sido creada para conocer las preferencias de estudiantes sobre propuestas de diferentes traductores automáticos.

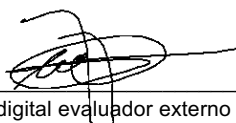
Este cuestionario es parte de un trabajo para obtener el grado de licenciado en idioma inglés y título Traductor inglés-español.

A continuación, se presenta la siguiente rúbrica para que pueda evaluar el instrumento. marque con una X la alternativa que considere adecuada para la evaluación.

	RÚBRICA EVALUACIÓN ENCUESTA	DEFICIENTE	SATISFACTORIO	MUV SATISFACTORIO
01	La encuesta entrega una introducción sobre la finalidad del estudio.			x
02	La encuesta tiene secciones para analizar edad, nivel educacional y nivel de inglés de los encuestados.			x
03	Las preguntas ofrecen contenidos, imágenes, enlaces u otros que apoyen la entrega de una opción por parte del encuestado			x
04	La encuesta contiene los textos separados por nivel de especialidad (divulgativo, científico, técnico, etc.)			x
05	Todas las preguntas y respuestas están enunciadas de forma muy clara y concisa.		x	
06	Los contenido y secciones de la encuesta son adecuados para obtener resultados que entreguen preferencias de la mejor traducción.			x

OBSERVACIONES

La sección de análisis comparativos debería ser planteada en afirmaciones y no preguntas dado a que la pregunta requiere de una respuesta (sí/no, respuesta abierta).



Firma digital evaluador externo

**COMPARATIVE ANALYSIS OF MACHINE TRANSLATION OF INFORMATIONAL,  
TECHNICAL, SCIENTIFIC AND LITERARY TEXTS; PERCEPTIONS OF  
SUCCESS AND IMPLICATIONS FOR EVALUATION.**


**Written by**

**Camila Andrea Pérez Milla  
Valentina Paz Pérez Milla  
John Michael Araya Perales  
Gary Leonel Quispe Gutierrez**

**has been approved for the Department of Languages**

  
\_\_\_\_\_  
**(Thesis Advisor: Didier Aguilar Muñoz)**

  
\_\_\_\_\_  
**(Thesis Evaluator: Susana Montecino Orellana)**

  
\_\_\_\_\_  
**(Thesis Evaluator: Daniela Aburto Matheo)**

**Date** December 2022

**The final copy of this thesis has been examined by the signatories, who ascertain that both the content and the form meet acceptable presentation standards of scholarly work in the above mentioned discipline.**