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# *Legal translation trainees' performance in from-scratch translation and post-editing: A product analysis*

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## Introduction

The recent advances made in international cooperation and business are indeed intrinsically connected to the legal profession: drafting and modifying international treaties, especially within the European Union, clearly require a considerable amount of both legal work and multilingual skills; it can therefore be stated that "at this early stage of the new millennium, legal translation is a basic requirement in both the public and private sectors of the international community" (Varó and Hughes, 2014: 2).

The notion of 'legal texts' include different genres of texts; moreover, different types of genres can be found within a single legal text at the same time (Cao, 2007: 7–8). For instance, terms and conditions are a legal text which is to be signed upon logging in social media channels such as 'Facebook', 'Twitter', etc. Legal texts are therefore part of our daily life, although sometimes they may go unnoticed, and they change our life. Realizing the importance and prominence of legal texts in our life is indeed necessary to cast light on the importance of the role of legal translators and promote such awareness.

Central to the entire discipline is the concept of translators' training. Indeed, trainee translators specializing in the legal field should acquire and develop legal translation competence (Cao, 2007), which requires specific training of interdisciplinary nature (Barabino, 2020). However, given the growing importance of Machine Translation and CAT tools (Computer-Assisted Translation Tools) in the translation industry nowadays, (Tucker 2003: 73) it is reasonable to assume that a part of translation students' training should be centered around the use of such resources.

What is less clear is the nature of the benefits that the adoption of such tools can bring in the area of legal translation didactics as regards the translation quality of the end product, that is, the final target text, when compared to that obtained through the procedure of from-scratch translation. The aim of the present research is therefore to determine if and to what extent the students' translation errors are influenced by the presence of a pre-translated text and which procedure can lead to higher-quality

translations through an error-based revision of from-scratch vs post-edited translations and subsequently an overall quality assessment of the data. The study's purpose is also to identify potential correlations between from-scratch and post-edited translations and specific translation error typologies. Considering that the sample of students participating in the empirical study reported to have little to no experience in legal translation and very little knowledge of the legal field in general, the presence of a pre-translated text is certainly expected to provide a significant aid in obtaining a final higher-quality translation. However, whether such achievement can be traced to an improvement in the understanding of the meaning of the source text from the students' part, or rather to the students' passive acceptance of the translation choices provided by the MT system without an actual comprehension of the document being translated is up for debate.

The first chapter of the present dissertation is dedicated to presenting the main features of legal language and the basic notions concerning MT, with a particular focus on its influence on the students' training.

The second chapter is dedicated to revision and the applicable parameters and criteria, the categories under which the translation errors can be classified. Furthermore, the concept of 'Translation Quality Assessment' (TQA) is explored through a review of the most relevant notions concerning the matter and the main TQA models.

The third chapter is dedicated to the methodology adopted in said empirical investigation, illustrating the main research questions and its design, the characteristics of the source text, the sample of participants, the task administration process along with the translation procedures adopted, namely PE and from-scratch (FS) translation, and finally the specific methodology adopted for the revision and TQA procedure.

Finally, in the fourth chapter the findings are presented and discussed, both from a quantitative and qualitative perspective, including a global quality assessment of the translations under investigation.

# 1. Legal translation and machine translation: main issues and implications in translator training

Legal translation students are supposed to acquire and develop legal translation competence, which entails a series of sub-competences (Cao, 2007). Therefore, specific training of interdisciplinary nature is required (Barabino, 2020) as the mere knowledge of the source and target languages clearly does not suffice. Machine translation (MT) is often used by students as a translation resource for both understand the source text (ST) and produce a target text (TT) (Kenny, 2022). This chapter will precisely investigate the competences needed to legal translators-to-be, with a particular focus on the use of MT by students and its influence on their training, underlining its strengths as well as its most problematic aspects.

## 1.1 Main features of legal texts

Legal translation is often regarded as a complex and difficult activity. The general complexity of law and the language employed within legal contexts certainly represent some of the main challenges alongside the cultural and communicative differences that arise when translating legal texts (Cao, 2007). As Cao (2007) illustrates in her work, legal language is characterized by its normative, performative and technical function and the indeterminate nature of language in general.

The normative nature of legal language is related to its prescriptive function: to regulate society and people and to establish legal norms. The performative nature implies that specific words entail legal consequences, as, indeed, legal language can perform acts. Its technical nature implies that the register of legal language is a variety of language use of the technical nature. Finally, the indeterminate nature of language is visible in the imprecisions and ambiguities of legal English and legal language in general. Law requires precision and clarity, to avoid disagreement of any kind; however, linguistic vagueness is inherent in language and therefore cannot be but mirrored in legal systems as well (Endicott 2000: 190).

Moreover, other challenges may arise if we consider the additional ambiguity entailed in terminological and conceptual asymmetries between the source and the target languages.

According to some scholars, legal language could be analyzed and studied as a sublanguage, a notion which is connected to a computational approach to language analysis. Crandall and Charrow (1978) propose that legal language is characterized by several features attributed to sublanguages, such as its separating, unifying, and prestige functions and its lengthy acquisition process. Numerous research on legal language investigates vocabulary in particular. For instance, the study by Mellinkoff (1963) identified nine main features of legal language, which include the use of:

1. Common words with uncommon meanings (e.g., using 'action' for 'lawsuit', 'of course' for 'as a matter of right')

2. Obsolete Old and Middle English words (e.g., 'aforesaid', 'whereas', 'said' and 'such' as adjectives)

3. Latin words and phrases (e.g., 'in propria persona', 'amicus curiae', 'mens rea')

4. French words absent from the general vocabulary (e.g., 'lien', 'easement', 'tort')

5. Terms of art, also known as jargon (e.g., 'month-to month tenancy', 'negotiable instrument', 'eminent domain')

6. In-group communication or professional language, also known as argot (e.g., 'pierce the corporate veil', 'damages', 'due care')

7. Formal words (e.g., 'I do solemnly swear and the truth, the whole truth and nothing but the truth', 'so help you God')

8. Words and expressions with flexible meanings (e.g., 'extraordinary compensation, reasonable man', 'undue influence'), which stand in contrast with the attempts at extreme precision.

Clearly, legal language involves more than specialized vocabulary, as it is demonstrated by numerous studies which focus on linguistic analyses of legal language (Charrow and

Charrow, 1979; Crandall and Charrow, 1978; Erickson et al., 1978). Nine main features appear to characterize legal discourse (Crandall and Charrow, 1990):

1. Overly complex sentences with multiple embedded clauses;

2. The overuse of passive constructions;

3. Whiz-deletion, i.e., the deletion of 'which is' or 'that is';

4. Unclear pronoun reference;

5. Nominalization;

6. Multiple negation;

7. Archaic and misplaced prepositional phrases;

8. Additional set of articles and demonstrative pronouns (e.g., 'said', 'such', 'aforesaid');

9. Frequent use of couplets and triplets (e.g., 'give, devise, and bequeath', 'null and void').

Furthermore, Cao (2007: 21 – 22) analyzes the pragmatic aspect of legal language ad notices the frequent appearance of performative markers, which is reflected by the extensive use of 'may' and 'shall', as well as performative verbs such as 'declare', 'announce', 'promise', 'undertake', 'enact', 'confer' and 'amend'.

## 1.2 Difficulties and challenges in legal translation

Adequate language skills are required in order to achieve effective intercultural communication. Extensive knowledge of the cultures involved is also a mandatory requirement, as they include the social behavior norms expressed in the respective legal systems (Janulevičienė, Rackevičienė, 2012). As Pommer (2008: 18) maintains, "law is always linked to the culture of a particular society and jurisdiction. Consequently, national legal systems are deeply rooted in a specific legal tradition and legal culture". This is precisely what constitutes the main difference between legal translation and translation in a

general sense: asymmetries between legal systems are often regarded as the most complex challenge for legal translators (Šarčević, 1997).

Even experienced translators might encounter substantial difficulties when tackling basic legal terms and, subsequently, intercultural communication becomes problematic, as said terms refer to concepts and notions that are inherently connected to the culture, values and legal tradition of a given country (Janulevičienė, Rackevičienė, 2012). According to Sandrini (1999: 1–5), legal concepts from different legal systems are hardly ever completely equivalent to one another: the majority might have only partly similar functions in their corresponding legal systems.

Research and studies in comparative law have classified the major existing legal systems by considering various features. First of all, it is necessary to define a legal system based on the general nature and content of the law, as well as the structures and methods of its legislation, adjudication and administration within a given jurisdiction (Tetley, 2000). Legal systems are also referred to as 'legal families'. David and Brierley's (1985: 20–31) classification of world legal families identifies the following categories: the Romano-Germanic Law (Continental Civil Law), the Common Law, Socialist Law, Hindu Law, Islamic Law, African Law and Far East Law. Zweigert and Kötz (1992) distinguish eight major groups: Romanistic, Germanic, Nordic, Common Law, Socialist, Far Eastern law, Islamic and Hindu laws. As far as legal English is concerned, the influence and prevalence of the Anglo-Saxon legal system and concepts is evident and they have little or no equivalents in other Romano-Germanic countries, which is particularly relevant with regards to intercultural communication.

The two most influential legal families in the world are the Common Law and the Civil Law (Romano-Germanic) families (Cao, 2007), which are the focus of the present study. These two categories cover around 80% of the world's countries; for instance, England and Wales, the United States of America, Australia, New Zealand and Canada are all Common Law jurisdictions, while France, Germany, Italy, Switzerland, Austria, Latin American countries, Japan and South Korea are Civil Law countries. Moreover, there are

mixed legal systems which feature elements and concepts of more than one legal family, such as Israel, the Province of Quebec in Canada, Scotland, the Philippines and Greece.

When translating legal texts belonging to different legal systems, the difficulty level may vary depending on several factors. De Groot (1988: 409–410) proposes four different scenarios with increasing degrees of difficulty related to the degree of similarity and relatedness of the legal systems and languages involved:

1. The two legal systems and the languages are quite similar, e.g. Spanish and French – in this case, the translation appears to be relatively easy;
2. The legal systems are quite similar, but the languages are not, e.g. Dutch and French – in this case, the task will not cause major difficulties;
3. The legal systems are different, but the languages are similar, e.g. German and Dutch – in this case, there may be considerable difficulties, such as faux amis;
4. The legal systems and languages are completely unrelated, e.g. English and Chinese – in this case, the difficulty of the task increases significantly.

According to Weisflog (1987), the nature of the problem is systemic: linguistic differences are simply the result of the gap between one national legal system and another. As a consequence, a wider 'system gap' will result in a wider legal language gap.

There are other important challenges which could arise that are worth to be considered, namely the linguistic, cultural and interdisciplinary challenges that do not depend on the different legal systems involved.

A basic linguistic difficulty is the impossibility of achieving terminological equivalence across different languages, which requires numerous comparisons and analyses of the two corresponding legal systems (David and Brierley, 1958). Moreover, legal language exhibits its own style, which responds to the expectations that are connected to the legal contexts. Indeed, legal language is employed in a variety of communicative settings by legal experts – judges, lawyers and law professors, just to mention a few. Such expectations and conventions are often implicitly and silently assumed (Bhatia 1997: 208). Of course, it is

easy to comprehend how this aspect can represent an issue for students approaching a legal text for the first time. As White (1982: 423) stated, in legal translation "the most serious obstacles to comprehensibility are not the vocabulary and sentence structure employed in law, but the unstated conventions by which language operates", thus depicting legal genre conventions as 'invisible'.

Another relevant aspect to consider is the cultural component. According to Weston (1983: 207), the most relevant characteristic of legal translation is the connection to its specific culture of origin. Snell-Hornby (1988: 39) highlights that the translator should not regard language as merely existing in a vacuum and isolated from the context in which it is spoken, but as an intrinsic part of culture; every text is impregnated in a specific context, which is influenced by the socio-cultural background. In short, it is possible to state that "each country has its own legal language representing the social reality of its specific legal order" (Šarčević 1985: 127). Students of legal translation thus need to be aware of this notion to overcome cultural barriers and therefore produce a translation of a text originally intended to be read by people belonging to the source language culture.

Lastly, it is necessary to mention the interdisciplinary nature of legal translation. There is, in fact, an immense variety of legal texts, which may feature characteristics of disciplines and areas outside the law, such as Politics or Economics (Asensio, 2002). Therefore, most legal texts are not to be considered as purely legal but as a hybrid. In order for them to be translated correctly, translators need to be aware of the text type they are approaching and address the task accordingly. This obviously requires conscious decisions from the translator's part and a thorough knowledge of the textual conventions of both systems (Bathia, 1997) in order to avoid translation errors, as the "lack of relevant knowledge of genre, communicative functions, text types and culture may result in distorted translations" (Trosborg, 1997: 17). Part of the training of unexperienced translators should therefore focus on raising awareness about the main characteristics of legal texts (Barabino, 2020).

*1.3 Common Law and Civil Law: prominent features and major differences*

Zweigert and Kötz (1992: 68–73) illustrated the main characteristics of Common Law and Civil Law according to the following criteria: their historical development; the mode of legal thinking; the legal institutions; the sources of law and their treatment; ideology.

Common Law was first established in England in the 11th century. Its legal principles are founded on reported judgments which are related to specific legal disputes that have been adjudicated by the Court; thus it is a system based on judicial precedent. As de Cruz (1999: 102–103) explained, analogical reasoning and a doctrine of precedent lay at the foundation of Common Law. Conversely, the origin of Civil Law is the *Corpus Juris Civilis* of Justinian (AD 528–534), which was emanated in ancient Rome and further elaborated through the Middle Ages. It is worth noting that Civil Law is the oldest legal system in the Western world and, in ancient times, it was adopted by the majority of European countries. It was only in the 17th century that different national legal systems emerged from it, partly because of the advent of nationalism and the French Revolution. Separate national codes of laws then originated, such as the French Napoleonic Code and the German and Swiss Codes. As regards legal thinking, Civil Law is characterized by abstract legal norms, well-articulated systems defining different areas of law, and juristic constructions (Zweigert and Kötz 1992: 70).

Common Law jurists analyze cases featuring similar facts, thus focusing on patterns and extracting specific rules from them, or, alternatively, propose new rules should unprecedented circumstances arise. Civil Law jurists study and analyze legal principles and their area of application in order to evaluate their consequences in terms of rights and obligations and formulate judgements (Tetley 2000: 701–702). The primary sources of law in Civil Law are codes and statutes, whereas court decisions are only considered as a secondary source.

Among the legal institutions of the Common Law, we can find trust, tort law, estoppel and agency, which are unique to the Common Law and do not belong to other legal families. Contract and tort are separate branches of law and there are also two main bodies of law: common law and equity. A substantial and crucial difference from Civil Law is the absence of the structural distinction between public and private law (de Cruz, 1999). The unique legal institutions of Civil Law include cause, abuse of right, the direct action, the oblique action,

the action de *in rem verso*, the extent of strict liability in tort, and *negotiorum gestio*, among others, which are all absent in Common Law.

It is important to recognize that the differences between the Common Law and the Civil Law families are not considerable enough to cause complete incompatibility between them, to the point of regarding legal translation as impossible (Cao 2007). Both belong to the Western culture, in terms of legal traditions and politics, which explains their partial convergence owing to the reciprocal influence between the two systems (Merryman et al. 1994). After the Second World War, statute laws became increasingly important in Common Law countries, particularly in the USA, and in more recent times the EU laws have had a growing impact on both the Common Law and Civil Law countries in Europe (Vranken, 1997). Nevertheless, the systemic differences between them indeed represent a significant source of difficulty for students of legal translation.

The different functions of law deeply influence the writing style of court verdicts and decisions. As Cao (2007: 29) explained, legal opinions in Common Law countries are rather long and include elaborate reasoning, while in Civil Law countries they are usually short and their style features a higher level of formality. Common Law judgments include extensive and thorough expositions of the facts, which are then compared or differentiated from the circumstances of previous cases in order to identify specific legal rules connected to the facts. Conversely, Civil Law decisions first involve the identification of the legal norms that may be pertinent to the case, and secondly the examination of the facts to ensure that their application is correct (Tetley 2000: 702).

In addition, Civil Law codes and statutes are concise as they typically do not provide definitions, whereas Common Law statutes are precise and offer specific definitions, with each specific rule exhibiting lengthy accounts of specific ranges of application or exceptions (Tetley 2000: 703).

### *1.4 Machine translation and post-editing: basic notions*

About forty years ago, translators were confined to the mere use of paper, a pen and a dictionary to perform their tasks. Nowadays, a wide range of new tools is luckily available, such as the computer, e-mails, the Internet and electronic search tools. The most relevant

innovation is certainly that of CAT tools (Computer-Assisted Translation Tools), which have considerably changed and improved the way in which translators operate and manage their translation projects today (Tucker 2003: 73).

CAT tools and computing and research skills are no longer optional for the legal translator but rather essential, especially when a high degree of accuracy and consistency is required, for instance in the case of the translation of international instruments (Cao, 2007: 52). Obviously, this implies that translators should be able to use these new resources, which means that apart from conventional linguistic and translational competences, additional computing and CAT competences are often mandatory. Hence, a part of translation students' training should be centered around the use of CAT tools and how they can improve their work.

Another tool involved in the translation process is Machine Translation (MT), i.e. the translation of a text from one language into another entirely by a computer software, which entails no human involvement (Napier, 2000). In the framework of CAT tools, the acronym AT, automated translation, is also used, but it is not related to what is generally understood nowadays as MT (see Boitet, 2003: 99–121). It is therefore more appropriate to refer to Machine Translation as MT.

Since the 1950s-60s, the historical period in which MT began to develop (Hutchins, 1995: 431–445), various systems have emerged, each based on a different approach. The first to be implemented was a rule-based system (Hutchins, 1995: 431–445). Originally, the main objective was to comprehend the functioning of the source and target languages and their basic linguistic mechanisms, in order to create a system that would transform the text and transfer it from one language to another. It was a very demanding and difficult approach, as it required very detailed and language-specific rule systems. Subsequently, the example-based Machine Translation system emerged, which was characterized by the use of portions of text in different languages as examples (Hutchins, 1995, pp. 431–445).

Afterwards, more up-to-date systems were elaborated, such as Statistical Machine Translation (SMT), still in use today. This model is based on corpora, which are obtained by

searching the network (Al-Onaizan et al., 1999: 3). The collected texts are cleaned, segmented and divided into portions of various lengths. The aim is to create alignments between the source and target texts through the large number of corpora available, which eventually results in the creation of corpora that contain both the source text and the target text. The corpora are subsequently analyzed by using automatic systems, which implement text partitioning and tokenization, followed by a standardization process. Finally, a translation model is generated, which include a model of the languages and their functioning (Al-Onaizan et al, 1999). This system produces quite satisfactory translations. However, ideally, the best approach would be a combination of the statistical and rule-based systems, since it generates a better translation than individual systems. A major problem of SMT is related to its very statistical nature, as it is based purely on statistical data: a segment could be associated with more than one translation, and human judgement is the only factor capable of selecting the best option. Nevertheless, overall SMT works optimally (Aadil & Asger, 2017).

Neural machine translation, or NMT, (Koehn, 2017) is based on neural networks and is predictive, which signifies it can predict the text sequence that follows the portion of text being examined. One of the major advantages is that this system allows zero-shot translations and thus is able to generate a translation between a language pair that was not originally matched. Obviously, this is a very relevant factor, both economically and in terms of resources. In general, its structure is very similar to human language (Koehn, 2017).

In short, it can be said that the rule-based system requires extensive linguistic knowledge and the ability to relate the source language to the target language (Hutchins, 1995: 431–445). Due to the large amount of time and money demanded, rule-based systems are offered in a limited number of language pairs, unlike Neural Machine translation, which offers numerous combinations. Statistical Machine Translation is able to generate multiple translations, since it is based on a collection of texts (Al-Onaizan et al, 1999). There are various examples of terms that may be considered as equivalent; consequently, the selection operated by the system may not always be the correct one. Statistically, SMT usually selects the most frequent option. To improve this approach, it is therefore necessary to add more specific data. Indeed, a better result may be produced through the addition of information,

which of course need to be relevant to the typology of the text to be translated. For instance, a company may develop SMT through the addition of its own materials and texts, thus providing more corpora.

MT is often associated with post-editing (PE). As Allen (2003: 297) explained, during this process, a translator or a linguist reviews a MT-generated translation and subsequently corrects the translation errors in order to make the text correct and comprehensible. Depending on the client's instructions and the intended purpose of the translation, different types of post-editing can be performed. As Cadwell et al. (2016) illustrated, full post-editing aims at obtaining a text as similar as possible to a human translation, which involves the use of the correct terminology, the adaptation to the source text style and format, a high degree of consistency, and of course the correction of any translation error. Light post-editing, instead, is usually employed for texts that are not to be published or whose main focus is simply their overall meaning. During this procedure, only major mistakes are corrected, such as mistranslations, omissions or additions, as they affect the reader's comprehension of the text. On the other hand, spelling, grammatical, or punctuation errors may not be corrected (Cadwell et al., 2016).

### 1.5 Benefits and efficiency of MT and PE

In establishing the benefits of the PE process and the extent to which MT tools are valuable to translators, the work of Carl et al. (2011: 131–142) provides a significant contribution. Their study focused on translators with no previous experience of PE, comparing the results with those produced by another group of translators who had been asked to translate the same texts manually, without dictionaries or technical assistance. The research produced several findings. Firstly, it was revealed that a higher number of revisions during the post-editing phase does not necessarily result in a higher-quality translation. Furthermore, with regard to time, PE was found to be a quicker process as compared to translation from scratch, even though not significantly. In this respect, though, it should be specified that the manual translators were experienced in the field of expertise chosen as the object of translation, whereas the post-editors were approaching the task for the first time.

In terms of cognitive effort, post editors had to re-read the target text a number of times that was significantly higher when compared to the manual translators. However, the latter consulted the source text more frequently. As regards translation quality, post-edited translations were evaluated better than the corresponding manual translations, even though the difference was not very significant. Overall, the study demonstrated that PE positively influences translators' productivity, as it enables to save time and increase the quality of the translation.

These results are consistent with other findings provided by numerous studies. Post-editing domain-specific texts constantly appears to be a much faster procedure than translating from scratch (e.g. Tatsumi, 2009; Plitt and Masselot, 2010). Of course, time is not the only relevant factor, since productivity and cognitive efforts also matter. As O'Brien (2011: 198) highlighted, post-editing productivity is not simply associated with the ratio of quantity and quality to time, but the cognitive effort required is also an important variable to take into account. Consequently, "the higher the effort, the lower the productivity" (O'Brien, 2011: 198).

The study by Carl et al (2019) addresses similar issues, with an additional focus on the overall quality of the target text and not simply the translation process. Firstly, post-editing was generally found to be faster than from-scratch translation, but the difference in speed appeared to be significant only for domain-specific texts. Post-editing also revealed to require less cognitive efforts than from-scratch translation, as indicated by the significantly lower pause density and the shorter pause duration when compared to from-scratch translation, with regards to both domain-specific texts and general language texts. Also, as far as from-scratch translation is concerned, domain-specific texts required a significantly longer time as compared to general language texts. By contrast, as regards post-edited domain-specific texts were completed in a shorter time and required considerably lower pause density and shorter pause duration than general language texts. Moreover, in terms of quality, both domain-specific texts and general language texts appeared to have been translated equally well with reference to both fluency and accuracy.

Da Silva et al. (2017) found no significant difference in speed comparing post-edited and from-scratch translation, but they noticed that the distribution of cognitive effort between the source text and target text was unbalanced in the two procedures. Numerous studies demonstrate that post-editors predominantly focus on the target text, whereas from-scratch translators typically devote more energy to the source text (e.g. Carl et al. 2015: 165).

Koponen's research (2012: 181–190) instead centered on the length of the source text and its relationship with the translator's cognitive effort. The results indicated that longer segments tend to contain more translation errors and, consequently, require more post-editing work. Obviously, this is due to the fact that a high number of words demands a high number of revisions and corrections and, therefore, a greater cognitive effort on the part of the post-editor, which translates into an increased amount of time required to detect errors and implement revisions. A possible solution to this problem could consist in setting the MT in such a way that it presents the longer segments divided into shorter units, thus allowing the post-editor to evaluate different units within the same long segment. This aspect is particularly problematic for legal translators, since, as previously mentioned, legal texts generally consist of long and complex sentences containing several embedded subordinates. In addition, according to Koponen (2012: 181–190), certain parts of speech require more effort and may be more difficult to correct than others, e.g., nouns, verbs and adjectives. It is therefore essential to use a good translation memory to select the correct lexicon and vocabulary, thus ensuring that the post-editor will not have to spend time searching for the correct terminology. Similarly, the structure of the text and its complexity may also influence the post-editor's work by requiring additional effort.

Of course, the type of MT system employed certainly has an influence on all these variables, as demonstrated by the study of Yamada (2019). The results indicate that employing NMT instead of SMT to post-edit a text does not result in additional efforts or increased difficulties during PE by the students. In spite of this, the total number of translation errors after post-editing the NMT output was considerably smaller than that of the errors remaining in the final translation emerging from the SMT output, which was nearly diminished by half. Indeed, it is evident that NMT can significantly aid non-professional post-editors.

In addition to the post-editing process, the overall quality of the post-edited translation is also particularly relevant, as evaluating time and cognitive effort appears of no use if the procedure generates a poor-quality translation when compared to from-scratch translation. The investigation performed by Fiederer and O'Brien (2009) revealed that post-edited domain-specific texts featured a higher degree of accuracy and fluency than that of from-scratch translations, which in turn displayed superior stylistic features. According to the study by Guerberof (2009), post-edited supply chain management content featured fewer translation errors than from-scratch translations. Similar results were reported by Garcia (2010), who indicated that the evaluators chosen for his research favored post-edited texts, and by Green et al. (2013), who highlighted the improved quality of post-edited Wikipedia articles when compared to texts translated from scratch. Therefore, all these findings seem to suggest that post-edited machine translation (PEMT) and from-scratch translation often lead to comparable translation quality, or even point to a superior performance of MT.

## *1.6 Machine translation and post-editing within a didactic framework*

Teachers often consider MT as a didactic resource very negatively – a mere lazy shortcut that causes cognitive disengagement from the learning process of foreign languages and translation, as it enables a direct link to the students' first language (Van Praag & Sanchez, 2015).However, it has been widely demonstrated  that prohibiting the use of MT is an ineffectual and useless measure (Cook, 2010; Steding, 2009; White and Henrich, 2013), since students employ it despite any restriction. Instead, language and translation trainers should assist them in using such tools and work alongside with them, in order for students to use MT effectively and not as a learning obstacle (White and Heinrich, 2013).

### 1.6.1 Machine Translation and Post Editing: students' perception and trust

The study by Briggs (2018) investigated students' perception of MT and the extent to which it is employed within a didactic setting, namely that of Korean universities. The research revealed that a most students do not consider the MT output capable of producing a correct translation. Moreover, only a small portion of students claimed to be against the use of MT tools during classes, whereas more than half of them indicated that their use should be

accepted. The results of the study therefore highlighted the frequent and extensive use of MT tools within Korean universities, both during and outside classes. The participants claimed to be using such tools for a wide range of purposes, but the most frequent one appeared to be simple vocabulary translation.

The study by Kałużna (2022) displayed similar results. The majority of the university students being interviewed claimed that they did not expect MT to provide the correct specialised terminology and they doubted its overall utility. Nonetheless, the participants agreed that such tools could at least convey the general sense of the text and its main ideas, despite considering them not fully reliable. Ultimately, the students expressed the view that MT is incapable of producing high-quality translations in the absence of the human translator's assistance.

Yang and Wang (2019) devoted their research project to investigating the reasons that motivate students to employ MT tools. The results indicate that two of the most relevant factors are the perceived ease of use and the perceived usefulness, with the latter being a stronger component than the former. Indeed, student translators often value and appreciate more the usefulness and advantages that are connected to MT tools. Although a large number of participants reported using MT, many of them claimed to be skeptical about the final MT output, which is in line with the findings of the study by Briggs (2018) previously mentioned. Moreover, experience and motivation were also included among the factors to be taken into account. Experience is connected to the perceived usefulness, as more experience in MT use causes students to grow accustomed to the types of translation that MT is capable of performing and its most frequent errors and flaws. Through the detection and correction of errors, students can optimize the benefits of MT, such as speed, and reduce the potential disadvantages, such as a final low-quality translation. Therefore, as trainee translators become more experienced in MT use, their productivity and the translation quality obtained will improve accordingly. In addition, the perceived ease of use can positively influence and increase students' motivation towards learning, which is understandable considering the accessibility and fast production of MT. Therefore, if translation students easily access and use MT tools, their motivation and interest in performing translation tasks and improving their skills can increase significantly, which can in turn cause an increase in experience.

1.6.2 Machine Translation and Post Editing: usage in the classroom, strengths and weaknesses

Anderson (1995) is one of the first proponents of the use of MT within a didactic setting, arguing that despite poor overall results, MT can still serve as a powerful support to increase second language and translation skills. This prompts us to the following questions: how do translation students perform when using MT in their learning process? Can a significant impact on the final product be observed?

The study by Daems et al. (2017) aimed at answering said questions through a comparative analysis of human translation and post-editing and two groups of subjects, namely student and professional translators. With regards to students, the most common translation errors reported were accuracy errors, even though they were found less frequently when post-editing, while professional translators significantly reduced the number of spelling mistakes and typos through post-editing. In both groups, human translation provided a higher degree of coherence and consistency within the text. The most frequent error typology of student post-editors was logic. Interestingly, after the experiments, the participants were questioned about their preferred translation method. The majority of both students and professionals expressed a preference towards human translation over post-editing. No statistically relevant difference in the quality of the final product of the two translation procedures was observed, which is in line with previous research presented above.

Koponen's contribution (2015) provides valuable insights as to how to maximize the advantages and benefits of MT and PE within the field of translation didactics, describing a MT and PE course held at the University of Helsinki. The aim of the course was to impart basic MT literacy to students and train them in the use of Post Editing in real, professional scenarios. This also made students face issues related to the translator's work environment, promoted a positive attitude towards the use of technology in translation, and reinforced the ability to provide critical evaluation of the MT tools and processes. When performing translation tasks, students regarded the MT output as rather understandable, but clearly far from perfect. Some reported that not much was needed and that MT provided a good starting point. Therefore PE was perceived as time-saving and not considerably difficult. In spite of

this, trust issues towards MT were detected. Moreover, students became more aware of their editing processes and acquired the ability to evaluate their own translations. One of the most relevant problems was to distinguish the different quality levels required during PE and to assess what corrections were necessary to the meet the corresponding standard, as many students expressed that they sometimes believed they were overcorrecting the text. Students also stated that rating MT quality by examining exclusively language or meaning largely contributed to raising their awareness on the weaknesses and limitations of MT. Over the course of the module, their perception of MT evolved as the participants claimed to realize and appreciate the potential of MT to a greater extent after the practical translation tasks performed. Nevertheless, despite the surprisingly good readability of the MT output, trust issues towards MT remained, which obviously caused a slowing effect on the post-editing process as students constantly needed to compare the MT version and the source text to detect potential translation errors. This result is in line with the findings of the study by Yang and Wang (2019), as experience appears to be a fundamental component both in the translation process itself and in the post-editing procedure.

## 1.7 Machine translation and legal translation

This final section of the chapter is dedicated to analyzing and discussing the possibility and potential implications of translating a legal text with the aid of a Machine Translation system, in order to establish whether it is possible and, if so, to what extent.

With regards to terminology, the study by Killman (2014) examined the accuracy of machine-translated English outputs concerning legal vocabulary performed by Google Translate. The term sample was collected from judgment summaries produced by the Supreme Court of Spain. The results showed that Google Translate accurately translated slightly over 64% of the selected terms, thus demonstrating that MT performs consistently well when approaching legal vocabulary.

Another relevant research is that of Şahin and Dungan (2014), who analyzed students' ability to manage time, their performance and reaction when translating a variety of text types, including the legal ones, from English into Turkish. The study aimed at establishing which translation resource can enable students to produce better results when tested: printed

resources only, online resources only or post-editing texts obtained via Google Translate. The findings highlighted that novice translators experienced difficulties with the PE procedure and that the level of complexity of the text had a greater impact on the time use and performance of the translators than the translation resource adopted. The legal text was considered the most difficult out of all subject-field and students reported that more time was needed to translate it.

Wiesmann's (2019) contribution is certainly relevant for the purposes of the present investigation. Her study analyzed the translations from Italian into German of different typologies of legal texts, performed by a MT software. Translation errors were systematized in order to produce an overall evaluation. The results displayed a poor translation quality, but comparatively better results were achieved for specific text types. The legal text typologies containing a vast number of translation errors included power of attorneys, contracts, court judgments and the part of statement of claims, probably due to the textual features which are notoriously challenging to MT systems, namely the syntactic complexity, formulaic and elliptical structures, the specific features of the text types, such as one-sentence structures, and the numerous abbreviations. The most frequent error typologies included non-translated words, non-translation or incorrect translation of abbreviations, the translation of proper names, nonsensical translations, terminology errors, terminological inconsistency. The overall translation quality was regarded as insufficient without major post-editing effort. The author concluded that students should first be made aware of the current limitations of MT, as assigning post-editing tasks of machine-translated legal texts appears to be of no use. Wiesmann (2019) then highlighted three major problems regarding Machine Translation of legal texts:

1. Beside the linguistic aspect of translation, the purpose and the intended recipient of the text are entirely neglected, as may be expected in light of the functioning of MT. Obviously, this a key aspect to be taken into account when translating a text.

2. Machine-translated texts do not reflect the legal system of the country where the source text was originated, and they are also characterized by linguistic elements that are unrelated to the legal field or to the textual typology of the source text. A possible solution could consist in training the MT system with specific translation memories. However, in

order to be able to find correct equivalents for the terms and phrases which are either partially found or not found in the TM, the legal expertise of the translator is fundamental.

3. While training a MT system with specific translation memories also enables to improve the translation of formulaic and elliptical constructions characterizing various legal text types, legal expertise is once again indispensable in order to overcome said translation problem.

*1.8 Chapter one: highlights and key points*

- Legal translation is often regarded as a complex and difficult activity due to the general complexity of law and the highly specialized language employed within legal settings.
- Although the linguistic, cultural and interdisciplinary aspects of legal language certainly pose a challenge to novice translators, the major difficulty of legal translation is considered to be the asymmetries between legal systems and text typologies (Šarčević, 1997).
- The two most influential legal families are the Common Law and the Civil Law families (Cao, 2007), which greatly differ in terms of their historical development, the mode of legal thinking, the legal institutions, the sources of law and their treatment and their ideology, as illustrated by Tetley (2000).
- Technological advances have radically changed the translation process. After CAT, MT, i.e. fully automatized translation with no human involvement (Napier, 2000), marked a major turning point. It called for PE, i.e. the revision of a MT-generated translation by a linguist or a translator to ensure correctness and comprehensibility (Allen, 2003: 297)
- PE often entails numerous benefits when compared to from-scratch translation, such as saving time and effort and obtaining a final product of comparable or even higher quality (Carl et al, 2019).
- Although a large number of students largely use MT tools to perform translation tasks, many of them display trust issues towards the final MT output (Briggs, 2018). In order to maximize the advantages of this procedure, students need to gain awareness of their own translation process and acquire the ability to evaluate their

own work (Koponen, 2015). In addition to it, experience in the use of MT and awareness of its limitations are also fundamental components (Yang and Wang, 2019).

- When translating law through a Machine Translation system, the overall translation quality is regarded as insufficient, as it has been found impossible to translate legal texts through MT without major post-editing effort. Students should first be made aware of the current limitations of MT, as assigning post-editing tasks of machine-translated legal texts appears to be of no use (Wiesmann, 2019).

## 2. Revision and translation quality assessment

The second chapter of my dissertation is dedicated to presenting revision, the applicable parameters and criteria, and the categories under which the translation errors can be classified. Further attention will be devoted to the concept of 'Translation Quality Assessment' (TQA), providing a review of the most relevant related notions and models.

### 2.1 The revision procedure: basic notions and parameters

Human beings do not do perfection. This simple, yet fundamental notion alone suffices to explain the reason why it is necessary to revise and edit texts and translations before their publication: regardless of the degree of experience one might have, in every area of activity it is possible to commit mistakes.

As explained by Kockaert and Segers (2017), translations can be evaluated according to different methods: the holistic method and the analytical method. With regard to the holistic method, the translation is assessed by an evaluator and consequently assigned a rating or an evaluative letter. The text is judged and considered as a whole, without a detailed analysis of the error categories. Therefore, said judgment is based on a general impression. As regards the analytical method, an error analysis is performed through an assessment grid, where the revisor detects and annotates the number of error types and their corresponding severity level. The analytical method is generally regarded as more reliable and valid, when compared to holistic methods (Waddington, 2001).

Before delving into the exposition of the different categories of translation errors, there are some preliminary notions concerning the revision procedure that ought to be presented and discussed. In this respect, the work by Mossop (2020) is of fundamental importance in providing the guidelines and principles on which to base a correct approach to revision work.

### 2.1.1 Translation quality

As Mossop (2020: 115) maintains, "revising is that function of professional translators in which they find features of a draft translation that fall short of what is acceptable, as determined by some concept of quality, and make or recommend any needed corrections and needed improvements." This definition has multiple implications, but the most apparent and relevant one seems to be the following: the notion of acceptability is strictly connected to that of quality. In fact, it is quality that determines the portions of a text to be considered acceptable or not and, subsequently, those in need to be corrected. Which naturally leads us to the following question: what is quality?

The concept of quality is defined by ISO 9000, the 2015 standard of The International Organization for Standardization, as "the degree to which a set of inherent characteristics of an object fulfils requirements". As Mossop (2020: 6) elaborated, 'requirements' include needs, expectations and obligations, therefore, it is argued that there is no such thing as absolute quality, since quality is always related to needs and expectations, which may vary depending on different factors. Different translations might have to meet different quality standards because they have to fulfill different needs. It is important to note that needs can be explicitly stated but also implied: in translation, accuracy is the most fundamental need among those belonging to the latter's category. When requiring the service of a translator, it is not necessary to demand an accurate translation, as this requirement is already assumed. Another relevant, implied need is that of successfully communicating the text's message to its readers.

Following Mossop (2020: 7 – 8), the notion of quality can be interpreted according to three different concepts. The first interpretation considers quality as a synonym for client satisfaction: as long as the client's requests are all satisfied, the product is high-quality. A second concept of quality identifies it as promoting the target language as much as possible, with a particular focus on the high-quality writing style of the translation to be achieved, rather than its correspondence with the source text. Finally, the third view of quality is that of 'fitness for purpose': the translated text should be adequate for its intended readers, depending on the reason why it will be read, as clarified by the client. Performing a revision according to this concept of quality entails the correction of only

the translation errors that require editing in order to make the translation serve the client's intended purpose, with no intent of ameliorating it. In short, there are more than two kinds of quality, good and bad; rather, the notion of acceptable quality varies depending on the text type and the intended readership.

### 2.1.2 The degree of revision

As Mossop (2020: 163) illustrated, different degrees of revision can be performed according to the necessary degree of accuracy, completeness and writing quality. The reviser might be required to simply correct major mistranslations and omissions, nonsensical sentences and constructions, terminological and grammatical errors, while in other circumstances their task may include an improvement of the translation and the writing quality, thus involving stylistic editing.

Mossop (2020: 163 – 165) then proposed four possible levels which define the degree of revision: for basic understanding, for information, for publication and for image. The first level aims to obtain a translation with the bare minimum of readability and which may contain incorrect language, thus being only roughly accurate, despite overall making sense, while at the second level the final product should correctly convey primary and perhaps secondary elements of the message of the source text, that is an averagely readable and mostly correct translation. At the third level, the final translation is fully accurate and the language is correct, well-tailored and fluent; more specifically, the concept of 'publication' refers to a document which will be accessible to a readership outside the organization that requested it. Furthermore, a reasonable level of consistency within the text, and to some extent of consistency with other texts, is necessary. Finally, the fourth level is used to achieve a finely crafted text and is typically chosen when the client's image and reputation will depend upon the translation.

### 2.2 Translation error typologies

The reviser's task is to examine the revision parameters, in order to check for potential errors. Mossop (2020: 136 – 137) presented a list of fourteen parameters, that is, categories of errors, divided into five groups.

Group A: Transfer

- Accuracy error – The translation does not convey the message of the source text correctly.
- Completeness error – Elements of the source text have not been translated without justification; unnecessary additions have been made.

Group B: Content

- Logic error – The passage and sequence of ideas do not make sense.
- Facts error – The text features factual or conceptual inaccuracies.

Group C: Language

- Smoothness error – The relationship among the parts of each sentence is unclear; there are awkwardly structured or wordy sentences.
- Tailoring error – The language is not appropriate for the intended readers of the translation, according to the use they will make of it; the right register and tone have not been adopted.
- Sub-language error – The correct terminology and phraseology have not been used.
- Idiom error – The word combinations used in the text are not idiomatic; the translation does not observe the stylistic and rhetorical conventions of the target language; the words or phrases have rare or archaic meanings.
- Mechanics error – The rules of grammar, spelling, punctuation have not been observed.

Group D: Presentation

- Layout error – The text features problems with spacing, indentation, margins, columns, positioning of footnotes, graphics, or the positioning and alphabetization of lists.
- Typography error – The text features problems with bolding, underlining, italicization, font type, font size, color or caps.

- Organization error – The text features problems with its overall organization, caused by failed structural editing.

Group E: Specifications

- ClientsSpecs error – The client's specifications have not been complied with, in terms of terminology, layout, use of designated documentation or other matters.
- EmployerPol error – The employer's or agency's translation policies have not been complied with, in terms of use of Memories, spelling practices or other matters.

One final aspect has not been included in the list: consistency. That is because consistency errors are only considered in correlation with other parameters: the revise should therefore identify inconsistencies in terminology, in register, in layout etc.

### 2.2.1 Accuracy

One of the main responsibilities of the reviser is to ensure that the translation is accurate, that is, that there are no major mistranslations that could potentially mislead the reader about an important aspect of the source text's message. It is therefore necessary to imagine how readers are likely to interpret the translation, taking into account their own mental context. However, this task is not always easy, as each reader has their own individual perspective.

Accuracy in translation is paramount to ensuring that the intended message is conveyed correctly. This extends beyond simply choosing the right words and phrases, to also include a correct rendition of the overall structure of the message. An accurate translation does not have to be a word-for-word reproduction of the original text. What is important is that the meaning is conveyed accurately. This also includes ensuring that the quality of the writing is up to par. Inaccurate translations can cause confusion and lead to miscommunication, so it is important to be as accurate as possible.

Obtaining a balance between accuracy and readability is the ideal goal; however, when a higher level of accuracy is required, which is the case with legal translation as discussed above, a degree of readability is inevitably sacrificed. The most common cause

of inaccuracies in translations is incorrect understanding of the source text. However, inaccuracies can also occur when the source text has been correctly understood but not accurately expressed in the translation.

2.2.2 Completeness

As a reviser, it is important to remember that the translation is expected to render the message of the source text, and nothing more. This means that any addition or subtraction from the original text should not be implemented. In most cases, a full interpretation of every expression in the text should be provided, even though it can be challenging. Completeness is not to be confused with accuracy, as there is an important difference between them: while accuracy is a qualitative matter and involves correspondence of meaning, completeness is a quantitative matter, as it regards the portions of the source text left untranslated or those of the target text that were added without justification.

The principle of No Addition No Subtraction (NANS) is an important guideline, as it ensures that the meaning of the source text is not lost or changed in the translation; however, it should not be taken too literally. The omission of information that are not relevant and important to the reader is not to be considered as an error, that is the case of repetitions, which can be eliminated where possible. This will ensure that the translation is clear and concise, and that the reader can easily understand the message of the text.

Completeness does not always mean explicitness. Elements that are explicit in the source text can be left implicit in the translation, as long as the reader can recover them. However, if the translator is in doubt, they should ensure that the element is explicit. When only a small, predetermined amount of space is available for the translation, of course it is best to leave message elements implicit, and eliminate redundancy. The converse issue is the explicitation of elements that have been left implicit in the source.

For instance, the explanations of technical concepts added by the translator can be removed if the text is addressed to other experts in the field. Furthermore, small additions and subtractions may be tolerated and even required when they are necessary to compensate for eventual gaps between the source and target cultures. However, the

potential implications of such changes need to be taken into account, as the reviser should ensure that they do not alter the overall meaning of the text.

### 2.2.3 Logic

This error category concerns the intelligibility of the translation: the sequence of ideas and concepts must make sense to the intended readership, therefore, non-sensical elements cannot be tolerated. Occasionally, the problem may lie in the source text, as it may be illogical in itself. In this case, if the translator has not corrected the error, the reviser is entitled to leave the contradiction since it is part of the original meaning of the text. Other times, nonsense or contradictions result from the translator's work. This is often the case with trainee students, and the causes of such error can be traced to either the lack of knowledge of the source language or the subject of the translation, or to the wrong selection of inter-sentence connectors which are not appropriate in the target-language context.

### 2.2.4 Facts

This error category concerns factual, conceptual and mathematical errors, which are rather important in order for a correct communication to occur. Such errors are usually immediately noticed by readers of the translation who are experts in the subject matter. This category differs from that of accuracy because of an important difference: if the target text overall makes sense, accuracy errors will often be unnoticed, but the same does not apply to factual errors. Another difference is that accuracy errors can be spotted through a comparison with the source text, whereas factual and conceptual errors can be discovered without relying on the source text.

### 2.2.5 Smoothness

Along with 'tailoring' and 'sub-language', this parameter covers the issues connected to the 'style' of the translation. More precisely, it indicates the problem of awkward sentence structures or poor connections between sentences. In this case, the smoothness of the source text does not determine its degree in the target text, but the readers and intended use of the translation do. Therefore, if the source text has been written in an unsmooth manner, this should not result in an unsmooth translation. The presence of words left

untranslated in the target text, such as names of institutions or titles, typically renders the translation less smooth, which often applies to legal documents as they usually require source language names. In other types of text, their presence may be reduced. Other interferences with the overall readability of the text are acronyms, punctuation, or its absence. Depending on the case, commas, parentheses and paired dashes might need to be inserted or removed.

### 2.2.6 Tailoring

This parameter is intended to measure the extent to which the translation is suited to its readers and the purpose they intend to make of it. More specifically, it denotes the use of the appropriate register, tone, degree of formality and technicality. For example, readers such as immigrants, with an intermediate level of reading ability, or international consumers of the text, who may lack important cultural knowledge, may need the text to be adjusted to their needs. Because of cultural differences, it is not always correct to imitate the style of the source text: even if words or phrases are similar in terms of tone or formality to those used in the original text, they may not be appropriate. Tailoring might also be required when there is a modification in the readership of the text, the intended usage of the text, the medium of a text and the time period in which the translation will be read.

### 2.2.7 Sub-language

Each text type and each area of expertise in the target language require a precise selection of lexical, syntactic and rhetorical elements; this category evaluates their correct usage. This may also concern, for example, a preference for noun-based syntax or verb-based syntax. The most relevant aspect of sub-language is the use of field specific terminology and phraseology, which designates the terminology and phraseology[1] employed by specialists who are also native speakers of the target language.

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[1] For the purposes of the present study, this category was divided into two sub-categories: 'sub-language – terminology' and 'sub-language – phraseology', in order to assess and evaluate the correct use of terminology and phraseology separately and therefore more specifically and identify potential differences of errors in terms of both quantity and quality between the two. (See chapter 3.5)

2.2.8 Idiom

This parameter is intended to evaluate the correct use of idiomatic combinations, that is, combinations of words which are grammatically correct and are actually used by the native speakers of the language. The presence of unidiomatic constructions might distract readers from the message and the important information of the text and it may also confuse them as to their intended meaning. Normally, it is advisable to select native speakers of the target language to revise a text in order for them to be able to recognize what is idiomatic and what is not. A translation may be unidiomatic due to several reasons: differences among the meanings of the words, differences among geographical regions, differential frequencies between source and target language or changes in word frequencies over time.

2.2.9 Mechanics

This parameter is related to errors in grammar, spelling and punctuation usage. As a reviser, it is important to ensure that the punctuation and number-writing conventions of the source language have been changed in order to comply with the target-language conventions. Depending on the selected language pair, a number of small mechanical elements may need to be verified and corrected, for instance the grammatical rules concerning capitalization.

2.2.10 Layout

This parameter is related to the visual aspects of the text as it concerns the arrangement of the text across the page. The reviser should therefore verify if the layout is consistent and devote their attention to the relationship between text and graphics. Such aspect is particularly important if the readers are likely to compare the source text with the translation. When clients specify that the layout should replicate that of the source text, the reviser has the obligation to ensure such instruction is respected, unless the rules of the target language dictate otherwise. If the translation is intended to be published, a proofreader might be responsible for the layout, which the reviser can then ignore, except for what concerns the relationship between text and graphics.

### 2.2.11 Typography

This parameter is also related to the visual aspect of the text and it mostly requires moderation and consistency. Moderation refers to the avoidance of an excessive number of bolded, italicized, underlined and colored words or in all caps. Consistency refers to a consistent use of each device for the same purpose, e.g. bolding for section heads. Even when a proofreader is involved in the revision work, typography should be considered by the reviser as it can affect the meaning of the text.

### 2.2.12 Organization

The organization of the translation relates to the ease with which its readers are going to navigate through the text and perceive its structure. It mostly concerns paragraphing, section numbering and cross-references. When organizational problems are noticed in the source text by the reviser, they should be reported directly to the client.

### 2.2.13 Client specifications

This parameter relates to which the client's instruction have been complied with, as some clients may provide instructions on very specific matters, e.g. the use of specific terminology or phraseology. Client specifications may be unsuitable owing to the client's lack of knowledge of the target language and its writing practices. Ideally, such problems should be negotiated beforehand; were it not the case, the reviser must decide and evaluate the extent to which it is appropriate to be loyal to the target language or to the client.

### 2.2.14 Employer policies

This parameter relates to the translator's adherence to the policies issued by their employers concerning their preferred approach to the translation task, e.g. the use of 100% matches found in Memories without change. Were the reviser not to fully agree with the employer policies, they must decide and evaluate the extent to which it is appropriate to be loyal to the employer or to their own professional standards.

## 2.3 Translation quality assessment

As already discussed above, "theorists and professionals overwhelmingly agree there is no single objective way to measure quality" (Drugan, 2013). While researchers and academics display a preference towards theoretical and pedagogic notions when evaluating translation quality, translation industry tends to employ quantitative indicators of quality (Lommel et al., 2014). The nature and purpose of the evaluation are also important factors to consider, as the parameters may vary depending on the context of the assessment of the text, which can be either a production process or a research study.

Early definitions of translation quality were provided by Nida (1964) and Holmes (1988) and they were centered around translation criticism, rather than empirical measurement. Reiss (1971) proposed one of the first systematic models to evaluate translation quality, whose main focus was the concept of equivalence: specific translation methods were associated to different text types. According to her, the ultimate goal of translation was to achieve optimal equivalence, a notion that was criticized as 'too vague' and lacking an explanation as to how the source and the texts should be classified and compared to each other in terms of text and language function (House, 2015).

Nowadays, translation industry evaluates quality to ensure that the client will receive a translated content which complies to their needs, while in research translation quality is assessed in order to highlight potential changes in quality when comparing the data with previous works or with those obtained through a different translation process. The evaluation models used in both the industry and academic translation programs are predominantly error-based, as the detected errors are counted, classified and assigned a different weight according to their severity (Castilho et al, 2018). Due to the increasing research and development of MT system, alternative ways of assessing quality were created, for instance the use of automatic evaluation metrics (Castilho et al, 2018). Nevertheless, according to an industry survey by Doherty et al. (2013), a strong preference for human TQA over automatic evaluation remains.

### 2.3.1 TQA models

With the advent of translation technologies, a more pragmatic approach to translation quality evaluation was needed in both research and industry contexts, which resulted in the creation of models and tools to support this procedure (Lommel, 2018). In the 1990s, two different models were elaborated:

• SAE J2450: this model consists in a simple, scorecard-style metric, featuring six error types and two severity levels (Sirena, 2004).

• LISA QA Model: after its release, this model served as a de facto standard for quality assessment of software and localization of documentation, featuring from 18 to 21 error categories and three severity levels. Furthermore, it allowed two different content types, namely documentation and software user interface, to be customized and included specific localization issues related to East Asian languages (Snow, 2015).

Following the demise of LISA, two different models were elaborated: (i) the Dynamic Quality Framework (DQF), which involves different approaches to the evaluation task, and (ii) the Multidimensional Quality Metrics (MQM), which continued the work and ideas previously developed by LISA. Such models are both thoroughly illustrated by Lommel (2018) in his work.

The main principles adopted by MQM are listed below:

- A flexible catalogue of error types, which is not intended to be applied in its entirety. Each user can select the types relevant to their needs and apply them throughout their revision work.
- Compatibility with existing specifications and tools: existing specifications and tools have been examined to harmonize their different approaches, with the objective to provide tools accessibility to MQM without the need to modify their functionality more than necessary.
- A hierarchical approach, which entails that the same degree of detail is not required by each assessment activity. MQM features a tree-like structure: every category is connected to child types, to be used optionally to achieve greater specificity.

- A specifications-based approach, as the use of documented translation specifications is strongly emphasized. Owing to specifications, the expectations of the parties involved in the translation process are clearly stated and explained. As a result, translation evaluations only consider the actual requirements of the task, thus ignoring the parameters that have been considered irrelevant.

MQM is highly hierarchical, with an extension of up to four layers of increasing specificity, even though the majority of the hierarchy only features two or three layers. E.g., design is a first-level issue type, local formatting is a second-level issue type, font is a third-level issue type, and bold/italic is a fourth level issue type, with each layer of the hierarchy providing more specific instances.

The TAUS DQF model has been developed by TAUS. It includes a variety of approaches to quality assessment: those aimed specifically at MT, (post-editor productivity measurement, adequacy/fluency evaluation, readability) and crowdsourced evaluation. Unlike MQM, it did not adopted existing metrics to harmonize them into one single categorization, but rather it developed a simple error typology centered around the needs of buyers of translation. At its first release, the DQF Error Typology featured six error types: accuracy, language, terminology, style, country standards and layout. Furthermore, four additional categories were included to mark issues that were not errors:

- Query implementation, i.e., the necessary modifications that have been implemented in response to questions to the content creator.
- Client edit, i.e., edits that have been requested by the client.
- Repeat, i.e., the repetition of the same translation error. Such feature has been included in order not to penalize the translator for each occurrence.
- Kudos, i.e., a scoring bonus assigned by the reviser for particularly good translation solutions.

The first release of the DQF Error Typology consisted of a scorecard in Excel format, containing instructions for use and sheets to be filled by the users with the error counts of each category.

2.3.2. Error severity

When evaluating a translation, it is necessary to estimate not only the quantity of errors but also their corresponding severity. As Lommel (2018) explained, this concept refers to the nature of the error and the extent to which it impacts the understandability of the translation and its core sense. The higher the severity of a translation error, the higher its negative impact on the overall meaning of the translation and, consequently, its effect on the intended readers. Severity is applied only to individual errors and not to error categories as a whole. In his work, Lommel (2018) illustrated the four severity levels proposed by the MQM and DQF models by default:

1. Null: this level is used to mark optional changes performed by the reviewer which are not translation errors and therefore does not entail any penalties.

2. Minor: this level is used for those types of errors which do not prevent the readers from understanding the message of the text and do not alter its meaning in any significant way. That may be the case of grammatical mistakes, that is, mechanics errors, for example.

3. Major: this level denotes those errors which alter the intended meaning of the text in such a way that its readers cannot recover it, but at the same time are unlikely to cause harm as they would not result in a negative outcome if the text were to be published without their corrections.

4. Critical: this level is used for those errors that alter the meaning of the text in a substantial way, thus preventing the translation from fulfilling its purpose. These errors are particularly problematic if it is not possible to easily notice them in the translation. For example, words that have been left untranslated for no justified reason can be considered as a critical error.

2.3.3 Scoring

As Lommel (2018) illustrated, both the MQM and DQF suggest a default scoring model. Firstly, each level of severity is assigned a predetermined weight: the default weights proposed are 1, 10 and 100, respectively. To calculate a score, each error is to be

multiplied by its severity value to generate penalty points, which are then summed up to obtain the total. The ultimate score is then generated through the formula reported below:

$$\text{Score} = 1 - \frac{Penalties}{\text{Word count}}$$

The resulting score is normally presented as a percentage. Finally, the last step involves establishing a threshold for what constitutes an acceptable translation, as both models do not provide a default percentage: the threshold needs to be adapted by each evaluator according to the context.

### 2.3.4 The evaluator

Both professional and amateur evaluators can be involved in TQA, depending on the context: while it is assumed that professionals can provide more reliable results, in certain types of tasks amateurs' skills and experience can be sufficient. Generally, the translation industry employs professional translators more frequently, while in MT research contexts accessing trained, professional evaluators is quite rare due to resource constraints (Castilho et al, 2018: 23). Therefore, students and amateur evaluators tend to be selected to perform the task, sometimes with an undefined proficiency level in the languages involved and an unknown expertise with the text type (Doherty, 2017: 141).

### *2.4 Chapter two: highlights and key points*

- Revising is that function of professional translators in which they make or recommend any needed corrections or improvements according to some notion of quality (Mossop, 2020).
- During the revision process, the revision parameters are checked by the reviser in order to find potential errors. The revision parameters presented by Mossop (2020) consist of fourteen parameters divided into five groups, namely transfer (accuracy and completeness errors), content (logic and facts error), language (smoothness, tailoring, sub-language, idiom and mechanics errors), presentation (layout, typography and organization errors) and specifications (ClientsSpecs and EmployerPol error).

- The advent of translation technologies resulted in the creation of models and tools for translation quality evaluation. The two most relevant models are the Dynamic Quality Framework (DQF), which involves different approaches to the evaluation task, and the Multidimensional Quality Metrics (MQM), which continued the work previously developed by LISA. Both models offer four levels of severity and a default scoring procedure (Lommel, 2018).

# 3. Design of the study

The following chapter is going to focus on the design and methodology adopted in the investigation, thus illustrating: (i) the research questions and main aims of the study; (ii) the selected source text and its main characteristics, as regards both the English 'Power of Attorney' and the Italian 'Procura' legal genres; (iii) the sample of participants, the manner in which the task was administrated to them and the translation procedures adopted, namely PE and from-scratch (FS) translation; (iv) the specific methodology adopted for the revision procedure.

## 3.1 The research questions

The aim of the present analysis is to determine if and to what extent trainee translators' errors are influenced by the presence of a pre-translated text in the area of legal translation. In order to assess this, the study will aim at answering two main questions:

1. Which procedure can on average lead to higher-quality translations: from-scratch or post-edited translations? In what respects in particular does each procedure result in more benefits than the other, as inferable from the final product?
2. Do from-scratch and MT post-edited translation correlate with specific translation error typologies?

Moreover, the following aspects will also be taken into consideration, even though the nature of the data available does not enable to answer said questions but rather to provide hypotheses:

1. What are the areas of strength of Machine Translation applied to legal translation didactics? What are its limitations?
2. Which procedure resulted in a greater attempt to comprehend the meaning of the source text from the students' part, on average?

*3.2 The research design*

The present dissertation is part of a bigger research project, namely 'The LeMaTTT Project' (Quinci, forthcoming), which aims to investigate the influence of pre-machine-translated legal texts on the research patterns of trainee translators and the quality of their translations. The study implied the performance of a translation task, namely the translation of a legal document, by two sample of MA students with different degrees of training and experience in specialised translation and post-editing, one including first-year MA students at the very beginning of their training as regards specialised translation and the other comprising second-year MA students with basic familiarity with MT and previous training in specialised translation. In each sample, half of the participants was required to translate the text from-scratch whereas the other half was required to post-edit the text. The objective of the research is to analyse and evaluate the data in terms of both the final product and the translation process. For this reason, the participants had to record their screen while translating and answer pre- and post-task questionnaires in order to collect their opinions about MT and their perception of it. Ultimately, all these variables are intended to display the extent to which the retrieval of the correct terminology and phraseology by trainee translators' is influenced by MT tools and, subsequently, whether and to what extent said resource can be integrated in their training.

Specifically, this dissertation will examine 50 translations produced by the second-year MA students (50 post-edited translation and 25 from-scratch translations) to classify the errors made by the two subsamples of students (3.5) and assess the overall quality of their translations (3.6).

3.2.1 The source text

The 'Power of Attorney' was selected as a text type by default by the principal investigator (PI) of the LeMaTTT project (Quinci, forthcoming), while the specific source text was shortlisted by the author of this dissertation after a thorough and careful selection and then approved by the PI.

In order to find it, the archives of the following website were consulted: https://www.sec.gov/. This is the official website of the U.S. Securities and Exchange

Commission (SEC). Founded in 1934 by the Roosevelt administration, "the commission is primarily responsible for administration of the laws governing the purchase and sale of securities in interstate commerce and the operation of securities exchanges in the United States" (Sack, 2014:1). The SEC holds considerable power, which is exercised in two primary ways (Phillips and Zecher, 1981: 9): (i) the establishment of standards for the disclosure documents obligatorily filed by companies when they intend to sell their securities to the public; (ii) the initiation of civil actions against companies and their officers, alleging fraud or non-compliance with laws and filing standards. Therefore, it represents an authoritative source, providing official documents exerting legal force.

As for the specific selection of the text, certain criteria had to be followed. One of the most relevant ones was the text length. Given the students' unfamiliarity with the genre and the time constraints imposed to complete the task (2 hours), it was established to administrate a source text that would not contain more than 250 words, in order to regard the completion of the task as reasonable objective to be pursued. Therefore, all the Power of Attorneys exceeding such word limits were automatically excluded. It was decided to prioritize those texts featuring wordings, phrases and terminology typical of the legal genre and in particular of the Power of Attorney text type (see paragraph 3.2.2) and which resulted in a machine translation output needing editing and including both highly and less visible errors. The process resulted in the selection of the text in Appendix 1, with a total word count of 198 words, including the title.

### 3.2.2 The 'Power of Attorney': an analysis of the source text

Cao (2007) classifies the 'Power of Attorney' text type among the private legal documents, namely "those documents that are drafted and used by lawyers in their daily practice on behalf of their clients" (Cao, 2007: 83). Other examples of private legal documents include deeds, contracts and other agreements, leases, wills, statutory declarations, statements of claims, pleadings and advice from lawyers to clients. For many legal translators, the translation of such documents represents the majority of their actual translation work. Among the main purposes of private legal documents we might find the creation, conferment, variation or negation of legal rights and obligations and the recording of such rights and obligations (Aitken and Butt, 2004).

More specifically, Varó and Hughes (2014: 144) provide a thorough definition of the Power of Attorney text type and its primary functions:

> *The documentation known as power of attorney entitles the holder or attorney to act on behalf of the donor, defend the principal legal rights and interests and represent them in court when necessary. It is therefore a particular type of contractual agreement by which a principal empowers an agent to act for them.*

It is therefore a deed which grants the power to execute another deed. Furthermore, as illustrated by Varó and Hughes (2014: 144), said document specifies the acts, or kinds of acts, which the attorney is allowed to perform, in order to prevent them from deceiving the donor or transgressing their wishes. Especially in the USA, there is a clear distinction between attorneys-in-fact, indicating any trusted representative, and attorneys-in-law or attorneys of record, who are obligatorily lawyers (Varó and Hughes, 2014: 144)

The Power of Attorney is normally acknowledged in the presence of a solicitor or notary public and can be revoked at any time; on the death of the donor, the document is automatically revoked.

Varó and Hughes (2014) then designated its simple macrostructure, which can be divided into two parts:

1. Commencement and performative act

The power habitually starts by referring to itself in the opening phrase through formulaic constructions, such as 'By this power of Attorney', 'Know all men by these presents', and subsequently identifies the donor and the attorney, who are associated to each other through a performative verb, ('constitute', 'appoint'). The legal relationship is thus both described and activated. The selected source text clearly complies with said description, as confirmed by the following excerpt:

> *KNOW ALL MEN BY THESE PRESENTS that the undersigned director ARRIS Group, inc., […] hereby constitutes and appoints Robert Stanzione, Lawrence Margolis and David Potts and each of them his or her true and lawful attorney-in-fact and agent […]*

2. The operative part

The second section is dedicated to the illustration of the attorney's rights and duties. This portion of the document must be carefully worded as the powers conferred on the agent need to be sufficient for the purpose for which the document is issued. Translators thus need to ensure that their rendition of the original source text is extremely accurate. A few examples include the right to manage and administer, to make investments and dispositions, to lend and to borrow, to act in legal proceedings or in substitution.

In the selected source text, said part is articulated as follows:

> *with full power and all capacities, to sign the Corporation's 10-K and any and all amendments thereto, and any other documents in connection therewith, to be filed with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as she or he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or their substitutes may lawfully do or cause to be done by virtue hereof.*

Finally, the document ends with a testimonium clause, which is also applied to contracts, wills and deeds.

> *IN WITNESS WHEREOF, the undersigned has hereunto set his other hand and seal as of the 13th day of February 2007.*

### 3.2.3 Lexical features of the source text: Word strings

When examining documents drafted by lawyers, the style is likely to appear as old or archaic, due, among other things, to the presence of words such as 'aforementioned', 'hereinafter', 'hereinabove', 'hereunder', 'said', 'such', etc. While these elements often do not constitute a major translation difficulty if the translator is accustomed to them, in English private legal documents the use of word strings certainly presents a challenge (Cao, 2007).

This tradition is considered to have originated in early history, emerging from the AngloSaxon linguistic tradition to conjoin two similar words, often alliterative, with closely related meanings (Tiersma, 1999: 13–15). These constructions, called doublets and triplets, later expanded into word strings, thus containing more than two or three synonyms (Mellinkoff, 1963). The main reason behind the decision to preserve this tradition in English legal documents lies in the intention of conveying the meaning of all-inclusiveness through such word strings, that is, to include all possible situations and eventualities; consequently, private legal documents are often redundant (Cao, 2007: 89).

Some of the examples of legal word strings proposed by Dick (1985: 126–1279) having essentially one meaning include 'authorise and direct'; 'null and void'; 'power and authority'; 'changes, variations and modifications'. In terms of the selected source text, it is clearly possible to observe the presence of numerous word strings: 'constitutes and appoints'; 'true and lawful'; 'power and all capacities'; 'any and all'; 'power and authority'; 'do and perform'; 'each and every'; 'act and thing'; 'requisite and necessary'; 'all intents and purposes'; 'ratifying and confirming'.

This feature can result in a considerable challenge for trainee translators since other languages may not be able to provide a string of corresponding words without altering their meanings, as the exact synonyms may not exist (Cao, 2007). However, it is not always possible or advisable for translators to translate the string with one single word: depending on the circumstance, each word may have different legal meanings and therefore entail legal consequences, which results in the need to interpret each individual word and its respective meaning whenever disputes arise (Cao, 2007).

### 3.2.4 Syntactical features: Long and complex sentence structures

Another common linguistic feature of English private legal documents is the length and complexity of the sentences, which also applies to numerous other languages. Generally speaking, legal texts contain longer sentences when compared to other text types (Salmi-Tolonen, 2003: 1173). Consequently, complicated syntactical structures can result in comprehension difficulties and pose a challenge concerning the rendering into the target language. As far as the selected source text is concerned, it can be immediately noticed that its structure consists of one extremely long sentence, which is also the entire

paragraph (obvious excluding the title and the testimonium clause); therefore, it perfectly complies with such characteristic.

Cao (2007: 94) proposes a two-step process when approaching such type of sentences: firstly, the original sentence structure and essential meaning of the text should be carefully analyzed by the translator in order to achieve a correct understanding of the message; secondly, the translator should express and convey such meaning in the target language. Therefore, it is essential to be aware of the syntactical rules of the source and target language. Occasionally, long sentences might be divided into two or more sentences in the translation, as the original structure of the text does not need to be followed and reproduced in the target text (Cao, 2007: 94).

### 3.2.5 Syntactical features: Passive structures

It has been observed that lawyers tend to use passive structures, that is, "a linguistic construction that permits the writer to avoid naming or referring to the person or thing that performs the action" (Cao, 2007: 94) As explained by Goldstein and Lieberman (2002: 131), the reason behind this tendency is due to the wish to avoid a direct reference or identification of the person involved or the assignation of responsibilities. In spite of this, passive voice is still used even when the intended readers of the text can identify the subject of an action. The selected source text feature three passive voices: 'as amended', 'to be filed with', 'to be done'. While it is not an exaggeratedly high amount, it can still be considered notable given the low word count of the text.

Cao (2007) suggested to translate passive structures without altering them, when possible. Only when the target language does not commonly feature passive voices some adjustments may be necessary, as it is not imperative to render such structures in the target text.

### 3.3 The Italian 'Procura'

In Italian Private Law, the transaction by which one person grants another the power of representation is called 'Procura' (Torrente, Schlesinger, 2019: 564). Representation is, precisely, the institution whereby a person ('rappresentante', representative) is granted (by the law or by the person concerned) a special power to take the place of another person

('rappresentato', represented) in the performance of legal actions on behalf of the latter and with direct effects in the latter's legal sphere (if a person is granted the power to receive acts or services on behalf of the represented person, this is referred to as passive representation) (Torrente, Schlesinger, 2019: 561).

The person issuing the statement (for instance, the person signing a contract before the notary) is the representative, but the legal consequences of the act fall on the person or institution represented, for example by acquiring the ownership of a property and thus becoming liable for the price agreed (Torrente, Schlesinger, 2019: 561). Representative power may be attributed directly by the law (legal representation) or by the person seeking representation (voluntary representation).

As far as voluntary representation is concerned, the voluntary representative appointed by the 'procura' is called 'procuratore' (attorney). The purpose of said legal document is to inform the people with whom the representative will have to come into contact with that he or she is authorized by the represented person to negotiate and make decisions on their behalf (Torrente, Schlesinger, 2019: 565). In order for the 'procura' to be effective, the attorney or attorney-in-fact does not necessarily have to accept it, as they simply need to become aware of it. Therefore, the Italian 'procura' has the power to confer on the representative the power to perform legal acts, whose consequence will befall on the wealth of the represented person (Torrente, Schlesinger, 2019: 565).

As Torrente and Schlesinger (2019: 565) illustrated in their volume, the 'procura' should not be confused with the 'mandato', as the latter is a contract regulating the relationship between the 'mandante' (the principal) and the 'mandatario' (the agent) – that is, the person who undertakes to perform certain legal acts in the interest of the principal – as well as their mutual obligations (e.g.: the principal's obligation to pay any agreed remuneration).

There are two different types of 'power of attorney': the 'procura generale' (general power of attorney), which provides the power to perform all of the principal's dealings and transactions, e.g. the power to manage the principal's entire real estate assets; and the 'procura speciale' (special power of attorney), which is limited to one or more specific tasks (Roppo, 2016: 390). In addition, even within a particular type of transaction, the

'procura' may impose further limits on the representative: for example, the attorney or attorney-in-fact might be granted the power to sell real estate located in one city, but not the real estate located in other cities (Roppo, 2016: 390).

The source text selected for the purpose of the present study can be considered as a 'procura speciale', given that the tasks to be performed by the appointed attorneys-in-fact are clearly defined:

> *To sign the Corporation's 10-K and any and all amendments thereto,*
> *and any other documents in connection therewith [...]*

It has therefore been considered as correct and acceptable to translate the title of the text, 'Power of Attorney', with both 'Procura' and 'Procura speciale'.

### 3.4 The setting and the data

#### 3.4.1 The sample of participants

The sample of participants exclusively included university students, more specially, MA students enrolled in the Master's degree offered by the University of Padua, 'modern languages for communication and international cooperation'. All the students were in their second year, as they were all attending the course in 'English Specialized Translation 2'. However, participation in the study was not a compulsory requirement of the module: students were recruited on a voluntary basis, even though they were offered two extra points in the final translation exam as a way to promote motivation and rightfully reward their time and efforts.

The students were assured that (i) their identities would not be associated with the corresponding translations, therefore guaranteeing complete anonymity, (ii) that the task would not be graded and (iii) that their overall performance would not impact the outcome of their final exam in any way, either positively or negatively. This decision was reached for two main reasons: firstly, to make sure that the participants would not feel under pressure while translating, fearing eventual repercussions caused by potential translation errors and thus resulting in them generally underperforming; secondly; to prevent them from cheating, thus not following the instructions they were given, with the goal of

obtaining a higher mark. Indeed, said factors could have altered the final product in such a way that it would not have reflected their actual translation skills.

A total of 110 students were recruited, even though three of them did not complete all the steps of the study. As for the proficiency level of the participants, the University of Padua requires a proficiency level of C1 in order to enroll in said master's degree. Moreover, it is reasonable to assume that the majority of the students passed the exam "English Specialized Translation 1" – or at the very least attended the course – since it is a mandatory requirement to be allowed to take the "English Specialized Translation 2" exam, which made them to a certain degree acquainted with the notion of "specialized translation" in general and with the use of online resources in translation, as it was a very relevant part of the syllabus .

Clearly, not all students have obtained a bachelor's degree in Translation Studies, hence, it is possible to assume that, despite their previous training acquired in the "English Specialized Translation 1" module, some might have been more experienced in translation than others. As for their previous experience in legal translation specifically, the majority of them reported not to have any, with the exception of the texts translated or revised during the module as assignments, and additionally stated not to possess previous knowledge or experience in the legal field (75 students out of 107, that is, 70.09% of them). Only five students out of the total, that is, 4.67% of them, reported to have translated a legal text in a work environment before[2].

Furthermore, it should be specified that among the translation or revision tasks previously assigned throughout the module the text type of the "Power of Attorney" never once featured among the assignments, therefore, if the students were not previously acquainted with it, they possessed no previous knowledge concerning its function or main textual features, which indeed represented a great source of difficulty.

Obviously, the participants were not informed about the objective of the present research as they were simply told the instructions to be followed, which are going to be illustrated in 3.3.2. Out of 107 translations, only 50 of them have been revised, evaluated

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[2] These data were collected through a pre-task questionnaire, whose analysis goes however beyond the scope of this dissertation.

and analyzed, due to both time and resource constraints. However, 50 translations have been considered to represent a reasonably vast sample, which would allow relevant and substantial conclusions to be drawn upon.

### 3.4.2 Task administration and procedure

The participants have been informed of the present empirical investigation during one of the "English Specialized Translation 2" classes, where the procedure to be followed was carefully illustrated. After a period of time necessary to collect adhesions to the research project, each student was randomly assigned an ID number for the empirical study from 1 to 110, in order to guarantee complete anonymity.

It was decided that the students with an ID number from 1 to 55 would post-edit the pre-translated source text, whereas the students with an ID number from 56 to 110 would translate the source text from scratch. As can be observed, students were matched with their assigned translation procedure randomly in order for the results to reflect their average performance with no bias: factors such as previous gradings of exams or assignments or previous experience in legal translation, as well as personal preferences, were not taken into consideration.

Before administrating the actual translation task, it was decided to grant the participants a period of one week to complete a short and simple trial, which had the purpose of simulating the condition of the actual task so that the students would be prepared to perform the activity with no concern for the technical procedure to be followed and a certain degree of familiarity with it, as this would in turn allow them to be solely focused on the translation and their performance would reflect more precisely their actual skills.

Furthermore, were technical complications to arise for any unforeseen reason, the trial would allow them to come to light and be sorted out before the actual tasks, as the participants were given the opportunity to ask for support, so that they would receive assistance in resolving their issues and they would not be penalized by them during the actual task.

The source text to be translated during the trial test clearly differed from the one selected for the present research project for obvious reasons. It was decided on purpose to choose a particularly short and simple text with no specialized vocabulary and no syntactical complexity because the aim was not to test the students' translation skills and therefore it was preferrable for this task not to require time and effort, so that the participants could mainly focus on the procedure to be followed and they would not pointlessly lose time on a translation which had no relevance at all within the research project.

To make the procedure more realistic, the students who were assigned an ID number from 1 to 55 had to translate it through post-editing while the students who were assigned an ID number from 56 to 110 had to translate it from scratch, despite the obvious simplicity of the task. A total of 110 links to the trial translations were created, each assigned to a specific student.

The trial procedure consisted of the following steps:

1. After reading a detailed tutorial on how to download a software for screen recording, namely Flashback Express, the participants had to start recording their screen.

2. Accessing the Moodle Page of the course, the link to a Pre-Task sample questionnaire was made available for the students to answer it. The questions to be answered were of general nature and not related to the translation process, obviously differing from the ones administrated in the actual Pre-Task questionnaire. All the students were administrated the same questionnaire, as there was no difference according to their assigned translation procedure. The sample questionnaire did not have a purpose in itself, but it was created to replicate the structure of the actual translation task so that the students would already know the exact procedure to be followed.

3. Once the questionnaire was filled in, students were given the link to access the trial translation, each one of them was assigned a specific link to their own translation project. As already mentioned, the students belonging to the PE

group had to post-edit the text, while the students belonging to the FS (from-scratch) group had to translate it from scratch. Afterwards, the final translation was to be saved as a Microsoft Word file and submitted via Moodle, in a specific section of the course page. The time limit to submit the translation was two hours, clearly more than enough for such a simple text.

4. After completing the translation task, the students were administrated a sample post-task questionnaire. Similarly to the pre-task sample questionnaire, all the participants had to answer the same questions regardless of their assigned translation procedure and the nature of the questions was quite general, clearly differing from the ones administrated in the actual post-task questionnaire. Students were also asked if they had encountered difficulties or specific problems during the procedure, to which the majority of them replied negatively. The most common issue was related to slow internet and malfunctioning of the participants' personal computers. Both the pre-task and the post-task sample questionnaires have been created by the author of said dissertation and subjected to the PI for final approval; however, the analysis of the results emerged goes however beyond the scope of this dissertation and will therefore be not commented upon.

5. The final step of the process was the exportation of the recording and its subsequent uploading on a shared folder on Google Drive. The purpose of the recordings was that of investigating the students' research patterns, which goes beyond the scope of this dissertation.

Once the trial was successfully completed, the students could download a certificate to attest their completion with the task. Completing the trial was a necessary requirement for accessing the actual translation task.

The trial procedure was tested beforehand by the author of said dissertation. The procedure was then made available to the participants, who were given one week to complete it and thus confirm their participation in the investigation.

Afterwards, the actual empirical study began. The students were given a period of time of two weeks to complete the task, so that they could devote their full attention to it without feeling pressured or rushed, especially given its difficult and time-consuming nature. The steps to be followed were identical to those of the trial translation, clearly involving a different source text and two different questionnaires. The time limit to submit the translation in a Microsoft Word format was set at two hours, starting from the moment the Moodle section containing the source text was opened.

The time constraint is certainly an important factor to be taken into account when evaluating the work of a translator: indeed, it would not be possible for a professional to pay close attention to every single word with impending deadlines to be met. Therefore, a time limit was considered as a relevant factor to be evaluated.

As for the translation resources to be employed, only two constraints were imposed. The first is related to the use of MT tools, which was obviously forbidden to the FS group as it would have made the whole research pointless. The second is related to the possibility of contacting other people, both professional translators and fellow students, to ask for help, as the study is supposed to evaluate a text produced entirely by the students relying on their sole translation and linguistic skills.

All the other potential resources were permitted: monolingual and bilingual dictionaries, glossaries, web searches, class notes, corpora, parallel texts and any other aid the participants might find useful.

Both the PE and the FS group had to perform the task through MateCat, a CAT system that integrates machine translation, as each participant was assigned a link directing them to a web page displaying the segments of the source text and a corresponding box to their right where the target translation was to be typed. The students in the FS group found the box completely empty as they had to type the translation from scratch, whereas the students in the PE group already found a pre-translated text, to be revised and corrected.

As Wiesmann (2019) explained in her work, MateCat is the result of a research project developed by: "Fondazione Bruno Kessler", that is an international research center, Translated.net, that is a translation service provider, the Université du Maine and the University of Edinburgh. Despite its initial use of statistical machine translation, in

2016 it switched to neural machine translation. Since 2014, MateCat has been available online for free, which is one of the main reasons behind the decision to adopt it for the present study: not requiring software downloads of any kind, it was evaluated as a fairly accessible tool to be used by students, its only limitation being the web browser, since it is accessible only through Google Chrome or Safari – a fairly easy difficult to overcome.

Users can perform translations both with and without registration. Registered users can include their own translation memories and other resources such as glossaries, whereas unregistered users can only adopt the translation memory provided by the system, which is called "My Memory" (Wiesmann, 2019). A total of 209 combinable languages are offered, and the source text must always be uploaded as a file, in order to preserve the original text formatting in the target text. The final translation can be downloaded as a Microsoft Word file and it is also possible to download each translation as a preview file before any changes are implemented (Wiesmann, 2019).

As far as Machine Translation is concerned, MateCat provides the following options:

- The adoption of one of the integrated machine translation systems (Google Translate, ModernMT, Yandex Translate etc.).
- The adoption of a combination of machine translation systems (Google Translate, DeepL Translator and Microsoft Translator),
- Complete refrainment from the use of a machine translation system.

Clearly, upon configuring the settings when creating the translation links to be assigned to the students, the third option was selected for the FS group while the second option was selected for the PE group, since in our opinion a combination of different MT systems would be more likely to provide an accurate output. This was applied to the links of both the trial translations and the actual translation tasks, as in both cases the links to the translation projects on MateCat were created by us.

## 3.5 The methodology for the revision procedure

Within the present study, an analytical approach has been chosen for the revision procedure to be implemented: indeed, through such method it was possible to perform a comprehensive and detailed error analysis, which provided data and facts to be discussed and evaluated.

The concept of 'fitness for purpose' illustrated by Mossop (2020: 8) was that on which the notion of acceptable quality was based and, therefore, what prompted revisions and corrections to be implemented. As for the other two notions of quality proposed, namely 'client satisfaction' and 'promotion of the target language' (see section 2.1.1), both of them were considered inappropriate for different reasons. As far as legal translation is concerned, while overcoming the cultural barriers of the text that might prevent its thorough understanding is certainly fundamental, the focus should not be placed on the high-quality writing style of the text to the point of striving for excellence, and correspondence of meaning with the source text is certainly not to be disregarded as it is an element vital importance. As regards the client's instructions, said parameter seems quite irrelevant for the purpose of the present research, as there were no actual clients involved. On the other hand, 'fitness for purpose' perfectly serves our concerns.

Which prompts us to raise yet another question: what is the purpose of the translations under investigation, exactly? Kockaert et al. (2017: 4) explained that one of the main challenges of legal translation consists in understanding and adequately render the lexical and discursive patterns of the corresponding domain language. More specifically, "the culture-bound and institutionalized nature of law as well as its typical jurisprudential style demand a substantial understanding of the domain, and a well-established knowledge of its terminology and its phraseologies" (Kockaert et al, 2017: 4 –5).

Therefore, this component was one of the major concerns when revising the results obtained: the translations need to convey a global and precise understanding of the source text and its domain. Moreover, appropriate use of terminology and phraseology is also required. Consequently, accuracy and lexical precision are extremely important, even at the expense of readability. In short, one of the central objectives of revision is to verify if (i) the meaning, purpose and domain of the text have been correctly understood and (ii)

the correct terminology and phraseology have been employed to convey said meaning and understanding, and, of course, the extent to which the use of MT tools impacted these variables. When a translation complies to said parameters, it will then be considered good quality.

As for the degree of revision, the first two criteria proposed by Mossop (2020), namely 'for basic understanding' and 'for information' do not comply with the requirements of legal language and legal texts, since, as explained above (Chapter 1.1) legal language should be as clear and precise as possible, therefore, an average level of accuracy does not suffice. In the case of the present research, the fourth level of revision, 'for image', seemed unnecessary and pointless and not related to the scope of the study, therefore, the third level was selected: for publication.

Not all error categories presented by Mossop (2020) were included in the revision of the data: those of 'presentation' (namely layout, typography and organization errors) and 'specifications' (namely ClientsSpecs and EmployerPol errors) were completely excluded. The former was not relevant because the graphic aspect of the text has not been taken into account at all for the purpose of the present research: rather, its focus is purely linguistic and didactic in its nature; therefore, aspects related to the presentation of the text exceed our concerns and appear of no relevance. The same applies to 'specifications': as mentioned above, simulating an actual work environment with specific client requests and translation policies was not a relevant aspect to be included in the investigation. While those are certainly important parameters to comply with for a professional translator, they are no indicators of trainee translators' linguistic and translation skills applied to legal language. Moreover, the category of sublanguage was divided into two subcategories, namely terminology and phraseology, in order to assess and evaluate such parameters separately and therefore more specifically and identify potential differences of errors in terms of both quantity and quality between the two.

Revisions were carried out through a specific software called "Markin4" (Creative Technology, 2013), which is "a Windows program that provides a comprehensive set of tools enabling the teacher to mark and annotate the text, and give comments and feedback to the students" (Saadi, Saadat, 2015: 2055).

Clearly, the settings of Markin4 were customized in order for the software to label the translation errors according to Mossop's revision parameters, illustrated in the previous chapter. More specifically, the following labels were added to mark the errors:

- Acc – accuracy errors.
- Com – completeness errors.
- Fac – facts errors.
- Idi – idiom errors.
- Log – logic errors.
- Mec – mechanics errors.
- Smo – smoothness errors.
- Sub_Phr – sublanguage errors – phraseology.
- Sub_Ter – sublanguage errors – terminology.
- Tai – tailoring errors.

On top of it, additional labels were added to mark the kudos:

- Acc – correct conveying of a particularly complex meaning to grasp.
- Smo – particularly smooth use of language.
- Sub_Phr – use of correct phraseology.
- Sub_Ter – use of correct terminology.

Once each revision was finished a Microsoft Word file was downloaded through the software, displaying the revised text and all the translation errors with their assigned label, as well as the kudos. The errors were highlighted in red, whereas the kudos in green. As for the revision procedure itself, a single reading of the translations was performed to check the content, language and transfer parameters. The source text was consulted only when necessary to help clarify logic problems, that is, when the translations did not make sense. That is because the reviser was already quite familiar with the source text, having selected it herself and then translated it as an assignment for the module, therefore its consultation was not necessary for every single translation error.

In order to assess which revisions were actually necessary a corpus of Italian 'procura' was collected, to check for the frequency and the acceptability of the

phraseology and terminology used by the students in their translations and verify whether their translation choices were correct or in need to be revised.

The corpus is composed of 51 'procura', collected through numerous Google searches with inverted commas of the most common Italian phraseology used in said legal text type. Not all documents were selected, as only the ones who appeared in official and authoritative sources (such as the official websites of Italian 'comuni', provinces and regions) were considered appropriate because they were verifiably authentic.

The corpus was consulted through the software 'AntConc', through which it was possible to obtain a frequency list of the corpus, i.e. a list of words reporting each graphic form (type) and its frequency (token). Furthermore, AntConc also allowed the search for a specific word, or strings of words, which in turn displayed the corresponding number of occurrences and the context in which they were used.

After revision, the data were then reported on an Excel spreadsheet. For each error, the corresponding line on the document reported the ID number of the student, the source text item, that is, the portion of the source text which had been mistranslated, the target text item, that is, its subsequent incorrect rendition in the target text, the error category and its severity.

### 3.6 The methodology for translation quality assessment

In the TQA of the translations examined in the present study, an error analysis based on Mossop's parameter has been performed. The only addition that has been made in the overall evaluation is a category introduced in the DQF model, whose purpose is to report remarks that are not errors: namely that of kudos. As already explained, said parameter is used to add a bonus score for elements of the translation evaluated as particularly good, fitting or idiomatic by the reviewer (Lommel, 2018). The default severity levels and scoring model proposed by both the MQM and the DQF models have been employed in order to assess the overall quality of the translations under investigation.

Only three severity levels were considered: minor, major and critical. Such types of errors were defined according to the severity with which they impacted the readers' comprehension of the text and their ability to grasp the meaning of the source text. Hence,

following Lommel's illustration (2018) of said severity levels, minor errors can be defined as errors which only slightly alter the text with no impact on the overall meaning and thus do not prevent the readers from understanding the message; major errors can be defined as errors which alter the meaning of the text, but do so in such a way that its readers can still easily recover it; critical errors can be defined as errors which alter the meaning of the text in such a way that the translation can no longer fulfill its purpose, as it is impossible for the readers to convey the correct meaning of the source text.

As for the scoring method, the predetermined weight assigned to each level of severity was 1 for minor errors, 5 for major errors and 10 for critical errors. As can be observed, it is considerably lower than the one proposed by default. Such decision has been reached for two main reasons: (i) the complexity of legal language as a whole in general and of the selected source text in particular and (ii) the students' lack of experience and knowledge in legal translation and their unfamiliarity with the selected text type. Indeed, it would have been pointless to assign default weights with such premises only to have the majority of the translations, if not all of them, evaluated as insufficient.

In order to include kudos in the calculation, each one of them is to be multiplied by a negative penalty value, which is -5, in order to decrease the overall penalty score. The penalty value assigned to kudos has been determined according to their relevance within the whole translation: while the presence of particularly appropriate or idiomatic translation solutions is certainly to be valued and appreciated more than a minor element, that is, -1, they do not constitute a vital and core component of the translated content, which would equal to a value of -10. Therefore, a compromise between the two seemed the best option.

As the MQM model does not provide a default percentage and it has to be adapted by each evaluator according the context, it has been decided to set the threshold at 60%, as that is normally what is considered to be acceptable and sufficient in Italian academic contexts, particularly in the grading of exams: 18/30 is the minimum mark that Italian university students need to obtain in order not to fail. Afterwards, each translation was assigned an overall mark expressed as a percentage following the formula reported in the previous chapter (see section 2.3.3).

*3.7 Chapter three: highlights and key points*

- The aim of the present analysis is to determine if and to what extent trainee translators' errors are influenced by the presence of a pre-translated text in the area of legal translation. More specifically, the objective is to assess which translation procedure can lead to higher-quality end products and identify potential correlations between from-scratch and post-edited translations and specific translation error typologies.

- The present dissertation is part of a bigger research project, namely 'The LeMaTTT Project' (Quinci, forthcoming), which aims to investigate the influence of pre- Machine-Translated legal texts on the research patterns of trainee translators and the quality of their translations through both a product- and process-oriented analysis. The ultimate goal is to assess the extent to which the retrieval of the correct terminology and phraseology by trainee translators' is influenced by MT tools and, subsequently, whether and to what extent said resource can be integrated in their training.

- The selected source text to be translated for the present empirical study is a Power of Attorney, a legal text type whose purpose is to entitle an attorney or an attorney-in-fact to act on behalf of the donor (Varó and Hughes, 2014). Among its main textual characteristics, it is worth mentioning word strings, complex sentence structure and passive voices (Cao, 2007).

- In Italy, the corresponding document is called 'procura', the transaction by which one person confers on another the power of representation ((Torrente, Schlesinger, 2019: 564). There are two different types of 'power of attorney': the 'procura generale', providing the power to perform all of the principal's dealings and transactions indistinctly, and the 'procura speciale', which is limited to one or more specific tasks (Roppo, 2016: 390).

- The sample of participants consisted in 107 students enrolled in the degree 'modern language for international communication and cooperation' offered by the university of Padua and taking the class 'English Specialized Translation 2'. Participation was not mandatory and the students were given a period of two weeks to complete the translation task after the administration of a short trial translation to get acquainted the procedure.

- The translation was to be performed through a CAT tool called Matecat, with half the students translating from scratch and the other half post editing the machine-translated text.

- Revisions were performed through a software called "Markin4", which enables the labelling of the translation errors into different categories, that is, the Mossop parameters. Afterwards, the translation errors were reported on an Excel spreadsheet.

- The TQA procedure involved three different severity levels, namely minor, major and critical, and a scoring method which took into account the presence of kudos, that is, elements of the translation evaluated as particularly good, fitting or idiomatic by the reviewer (Lommel, 2018).

# 4. Data analysis and discussion

The fourth chapter of my dissertation is dedicated to the presentation of the collected data and their analysis, both from a quantitative and qualitative perspective. Further attention will be devoted to the global quality assessment of the translations under investigation.

### 4.1 Quantitative analysis of the data

In terms of quantitative assessment, interesting findings have indeed emerged. Figure 4.1 below illustrates the average number of translation errors detected within both groups and within the PE and the FS group specifically.
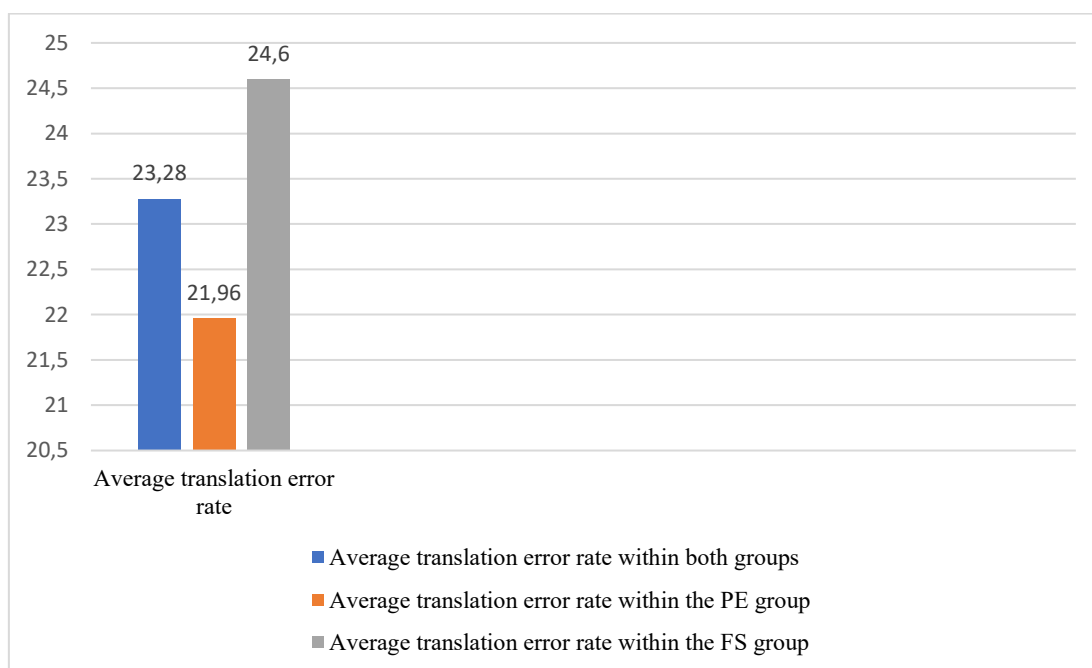


*Figure 4.1: Average translation error rate*

A total of 1157 translation errors were detected in the translations, which translates to an average of 23.14 translation errors per student. This figure in itself does not reveal much, but it becomes rather meaningful when compared to the rate of the average quantity of translation errors detected in the PE group and in the FS group. Respectively, the former displayed an average of 21.8 errors (the total number of errors being 545), while the latter an average of 24.48 errors (the total number of errors being 612).

This difference is indeed quite significant: at first glance, it is obvious that the PE group performed much better than the FS group, which could result in an argument proposing that the assistance of a pre-translated text can assist and significantly aid trainee translators to produce a higher-quality end product. Of course, this initial and tentative hypothesis is yet to be confirmed by other data, such as those concerning the error severity and the corresponding error categories.

Figure 4.2. reported below illustrates the number of translation errors per student detected within both groups.
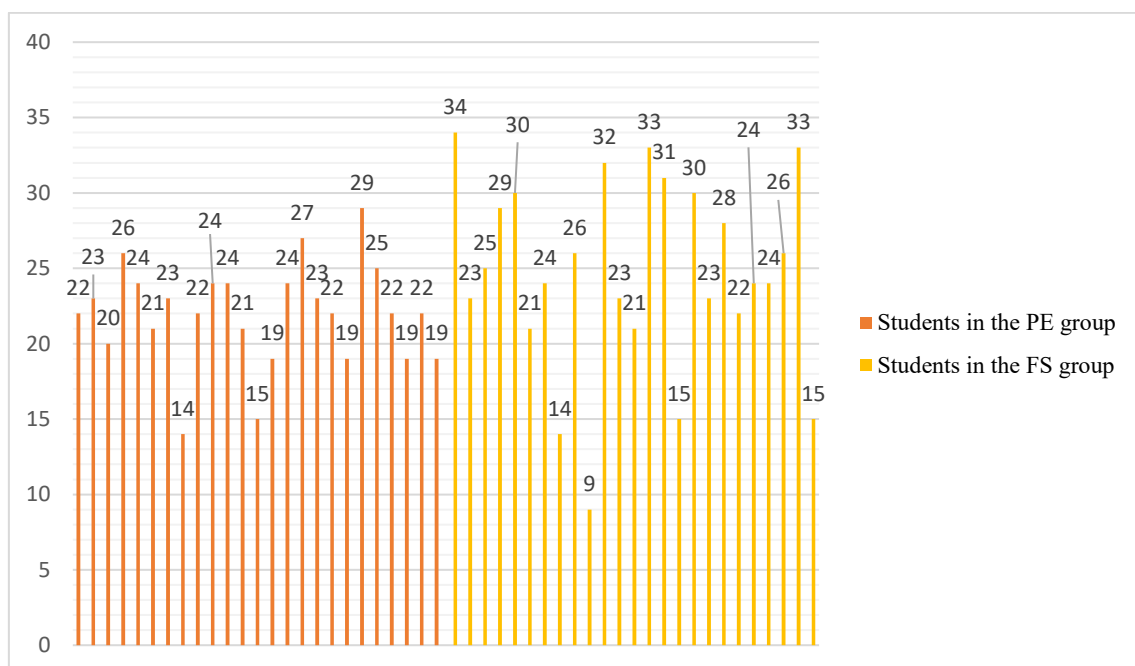


*Figure 4.2: translation error rate per student*

The difference between the two groups is evident: within the PE group, only 8 students out of 25 committed a number of errors exceeding the average, that is, less than half the sample. Conversely, in the FS group the number of students whose total error number is above the average is 15 out of 25, which is considerably higher. However, it is interesting to observe that a total of 6 students (12% of the sample) performed remarkably better than the other participants: namely student 8, 13, 64, 66, 73 and 82, respectively making 14, 15, 14, 8 15 and 15 translation errors. Two of said participants belonged to the PE group, whereas the other four to the FS group. Furthermore, the translation featuring the lowest number of errors belongs to the FS group, in spite of what previously stated. For this reason, it could be argued that even though MT apparently seems to provide a

considerable aid in producing a text which is overall more correct and features a lower number of translation errors, particularly skilled students are capable of providing a good-quality translation regardless of the translation procedure adopted.

As for the error severity, figure 4.3 shows the distribution of minor, major and critical errors across the translations and within the PE and FS groups specifically.
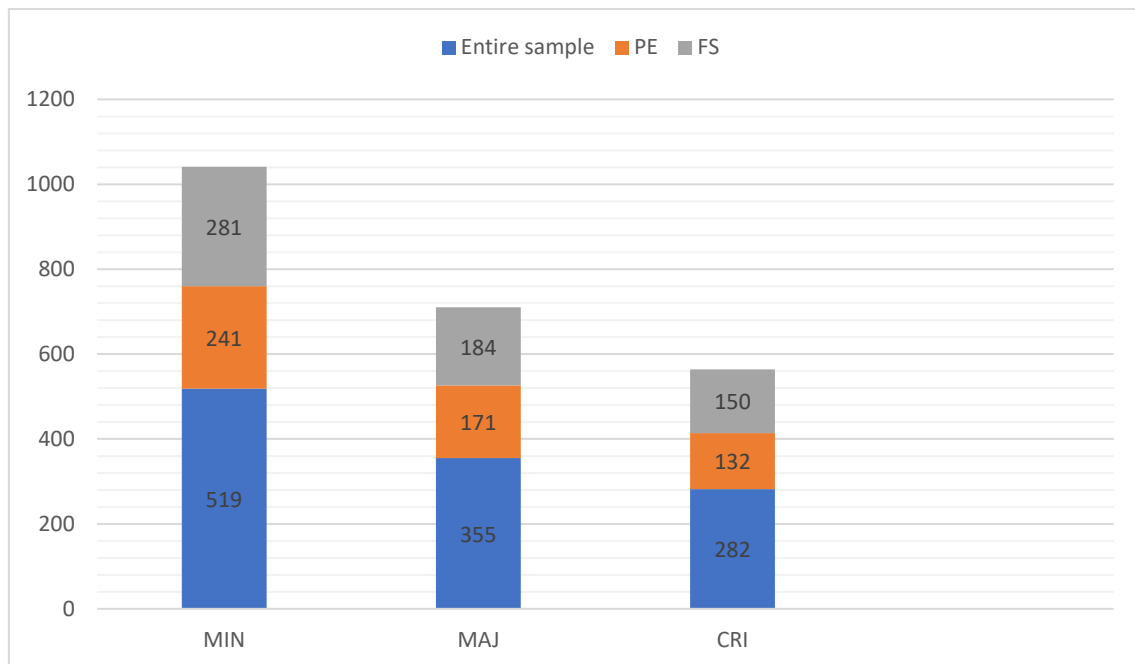


*Figure 4.3: Distribution of minor, major and critical errors*

The percentage rate for each severity level is the following: 45.19% of minor errors, 29.98% of major errors and 24.14% of critical errors within the entire sample; 44.63% of minor errors, 31.15% of major errors and 24.04% within the PE group and 45.85% of minor errors, 28.98% of major errors and 24.39% of critical errors within the FS sample. These data show a high degree of consistency: both in the entire sample of translations and within the two sub-groups specifically, minor errors appear to be the most widespread type, immediately followed by major and then critical errors. However, a few remarks can be made. Firstly, the difference in the number of major errors detected in the two sub-groups do not seem to be particularly large, but the gap increases to a certain extent when comparing the number of minor and critical errors. Investigating the percentage rate of each severity level, it is possible to notice that while the percentage of critical and minor errors within the two groups is basically equivalent, the difference between the percentage rate of major errors is certainly more remarkable. Within the PE group, major errors

constitute a higher portion of the total number of errors when compared to the FS group. However, it is also vital to analyze the categories of translation errors detected from a quantitative point of view.

In this respect, figure 4.4 illustrates the frequency of the translation error categories identified in the texts.
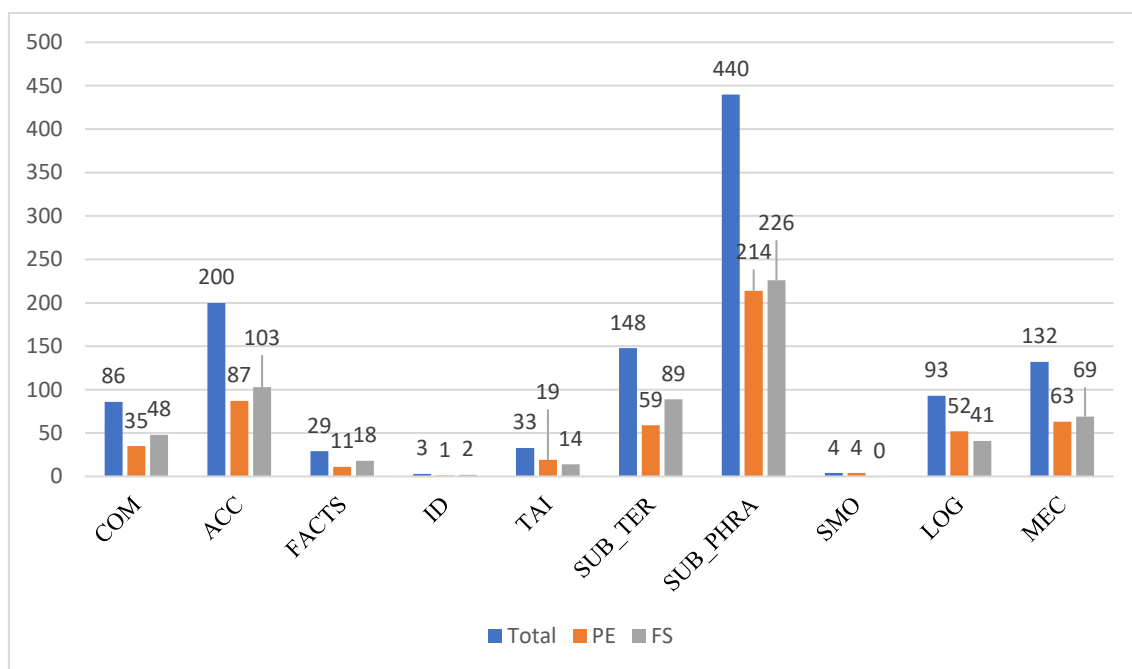


*Figure 4.4: error category frequency*

As far as the whole sample is concerned, phraseology is by far the most common error category among all, with a clear and distinct divide from all the other parameters. Furthermore, this applies to both groups, regardless of the translation procedure adopted. The second most common translation error is that of accuracy, followed by terminology, mechanics, completeness and logic, tailoring, facts, smoothness and idiom.

Initial considerations may be drawn upon analyzing said frequencies. For starters, phraseology is indeed the aspect of legal language and of legal translation in general that seems to be the most problematic for trainee translators. Indeed, retrieving the correct phraseology requires extensive research work as it cannot be improvised, since this process should involve the consultation of official, authoritative sources which apparently students may not always be able to find, let alone be familiar with (Prieto Ramos, 2021). The use of MT in this respect seems to provide only a slight aid, which cannot be considered relevant or substantial at all judging by the data.

Secondly, the high frequency of the categories of accuracy, terminology and logic does not appear to be surprising given the students' lack of knowledge of the legal area of expertise, which can in turn cause an incorrect or illogical rendering of the source text and the adoption of incorrect terminology. Instead, the high number of completeness and mechanics errors appears to be more remarkable: on average, each student made 2.6 mechanics errors, which could have been easily avoided or at least diminished through a careful proofreading of the translation.

Thirdly, the least common error categories are facts, tailoring, smoothness and idiom. The nature of the source text in itself is indeed responsible for such findings. Firstly, given its relatively low word count, the amount of factual information to be translated was understandably low; subsequently, the chances of students mistranslating them was also quite low. Secondly, a smooth and idiomatic use of general language does not appear among the main features of legal language as a genre, therefore, such aspects were not really relevant both in the source text and in the target text. Finally, tailoring most likely did not represent a meaningful issue as legal language is known to be very formal and characterized by a high register, which students evidently were able to reproduce without considerable difficulties.

More remarkable conclusions can be drawn from the comparison between the two subgroups. The data concerning facts, idiom, tailoring, logic and mechanics appear to be somewhat consistent as they do not reveal significant differences between the two translation procedures. It is worth noting that MT seems to aid in the translation of factual information, if only slightly, possibly preventing mistranslation caused by distraction – an hypothesis that will have to be verified in the qualitative analysis of the data. Conversely, MT seems to be an obstacle in the rendition of the right formality level, possibly because students may tend not to correct the pre-translated text unless they detect a clear translation error – again, another hypothesis that will have to be verified through the qualitative analysis of the data. Furthermore, said tentative conclusion may explain the slight prevalence of logic error within the PE group: students may avoid revising translation items that at first glance could appear as correct without considering and, most importantly, verifying whether said rendition makes sense in the target language or not.

The categories of accuracy, completeness and phraseology indeed show a mild prevalence of errors within the FS group, which could possibly mean that the presence of a pre-translated text can assist trainee translators in retrieving correct phraseology, conveying the meaning of the source text more accurately, and avoiding omissions or unnecessary additions, though to a limited extent.

Conversely, the most striking differences are related to terminology and smoothness category. As for terminology, MT apparently seems to be a valuable asset in helping the students to retrieve correct legal equivalents, which is an interesting observation, especially when compared to the data concerning phraseology. It therefore may be argued that while legal terminology and phraseology both represent a considerable source of difficulty for trainee translators, legal terms can be easier to retrieve through MT. Finally, it is interesting to notice that no issue related to smoothness was detected in the FS sample, whereas the PE sample featured four translation errors. This phenomenon could be explained by the hypothesis advanced above, namely that students may tend not to correct the MT-translated text unless necessary, which may result in them overlooking factors related to the "writing style" such as those concerning the register and level of formality (tailoring) and the readability of the text (smoothness).

Finally, the last part of this quantitative section is dedicated to presenting and analyzing the most commonly mistranslated source text items. Figure 4.5 shows the ten most frequent source text items highlighted in the error analysis and the corresponding number of occurrences, both within the entire sample and within the two subgroups specifically.
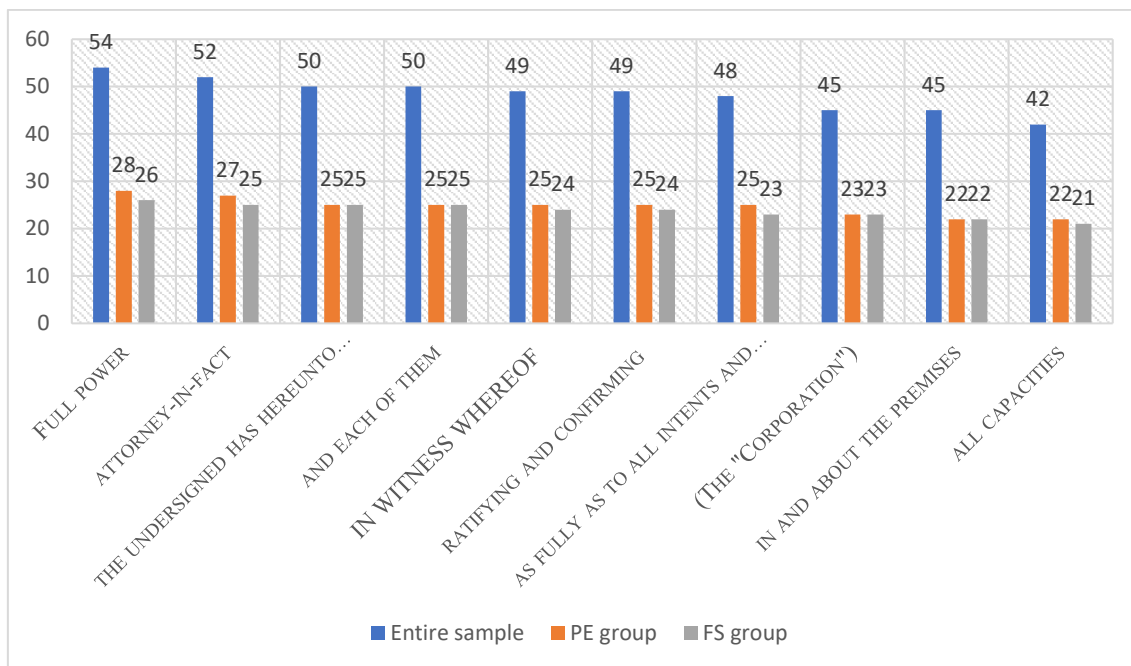
*Figure 4.5: ten most frequently mistranslated items*

The first aspect to be highlighted is certainly the number of occurrences of the first two items, i.e. "full power" and "attorneys-in-fact", exceeding the number of investigated translations, i.e. 50. The simple explanation behind this apparently abnormal figure is that the source text featured both these elements respectively twice and three times. For this reason, when a student translated such items with two or even three incorrect renditions, the same item was reported twice or three times within the Excel spreadsheet along with their corresponding target text items. Conversely, if students were consistent in their translation choices, the incorrect rendition was only reported and calculated once, even though in brackets the reviser noted that the error was repeated. Therefore, not all students mistranslated such items.

Out of all the reported translation errors, seven of them belong to the category of phraseology, one to that of terminology and one to that of accuracy. As for the remaining one, "the premises", its corresponding error category depends on its subsequent rendition into the target language: while in the majority of cases it constituted an accuracy error, other times students correctly understood its meaning but failed to use the right phraseology to express the concept in the target language. Such findings confirm what has already previously emerged: trainee translators seem to encounter a great amount of difficulty in retrieving correct legal phraseology. Indeed, the translation errors reported

in the list have represented a significant problem for the vast majority of the participants, regardless of the translation procedure adopted.

As for the differences emerged within the two groups, no distinctive discontinuity can be highlighted, that is, the findings seem overall consistent. It is curious to notice that even though the FS sample registered a higher number of both translation errors and critical errors, it also featured a lower number of occurrences of translation errors concerning the most frequently mistranslated items, if only slightly. However, this finding can mainly be traced to a particularly high-quality translation belonging to the FS group and does not entail conclusions of any sort concerning the two translation procedure. In short, the most problematic challenges presented by the source text were not overcome either through PE or from-scratch translation as such elements, mostly phraseological in their nature, could only be translated correctly by particularly skilled students.

## 4.2 Qualitative analysis of the data

As far as the qualitative analysis of the data is concerned, the following section will be divided into a number of subsections, each one dedicated to analyzing single error categories.

### 4.2.1 Accuracy errors

Accuracy is the second most widespread error category, both within the entire sample of translations and in the two subgroups specifically. The most common translation error belonging to this category has been reported in Figure 4.5 above, i.e.: "as fully to all intents and purposes as she or he might or could do in person." Clearly, a literal rendition of said clause was not the correct way to translate it, even though it appears to be quite a common choice among the participants. Within the PE group, some of the most frequent mistranslations appear to be the following:

- A tutti gli effetti come il rappresentato agirebbe o potrebbe agire (*For all intents how the represented person would or could act, 2 occurrences*)
- Nel modo più completo a tutti gli effetti come il rappresentato potrebbe fare di persona *(As fully as the represented could do in person, 5 occurrences)*

- A tutti gli effetti come lei o lui potrebbe fare di persona (*For all intents as she or he might do in person, 5 occurrences*)
- Nel modo più completo e a tutti gli effetti come lei o lui farebbe in prima persona *(In the most complete way as she or he would do in person, 2 occurrences)*

At first glance, such renditions all seem fairly similar. If we compare them to the translation obtained through Machine Translation, it is possible to notice that said renditions do not differ from it significantly:

In modo altrettanto completo, a tutti gli effetti, che lei o lui potrebbe fare di persona

It should be noted that no students belonging to the PE group left the MT output for this passage completely unaltered, possibly because in the context of the pre-translated target text such clause appeared grammatically incorrect; however, the students preserved a considerable part of the vocabulary proposed by the MT system and the overall meaning, which is inaccurate. A possible explanation behind said phenomenon may be that students did not know the meaning of said portion of the target text and the MT system offered a possible translation, clearly requiring some editing but overall intelligible and comprehensible. Therefore, this has either prevented or discouraged them from attempting to understand through a detailed research what the actual meaning of the clause was, or it misled them to the point that they were convinced of the accuracy of said rendition without the need to verify it.

However, the FS group did not obtain considerably better results. Only two students were able to correctly translate such item, which is indeed quite an impressive achievement; the following correct rendition was produced by student 66:

Di modo che possano agire in piena rappresentanza del conferente

As for the other students, some of their incorrect renditions are listed below:
- Completamente a tutti gli effetti come farebbe il/a rappresentato/a di persona *(Completely for all intents and purposes as the representative man or woman would do in person, 1 occurrence)*
- Riguardo tutti gli intenti e le finalità che lei o lui potrebbe conseguire *(Regarding all intents and purposes that she or he might achieve, 1 occurrence)*

- Come se potessero o dovessero a tutti gli effetti agire di persona *(As if they could or should for all intents and purposes act in person, 1 occurrence)*
- Nell'assoluto rispetto di tutto ciò che il fiduciante o la fiduciante farebbero di persona *(With absolute respect to anything that a male or a female settlor would do in person, 1 occurrence)*

As can be observed, the general meaning does not change much from the one conveyed in the previous mistranslations, therefore the students' overall difficulty in providing the correct translation of said clause cannot be attributed to MT misleading students or discouraging them from performing their own research. However, a clear tendency can be observed, which could possibly be relevant: the translation choices provided by the students belonging to the PE group are all very similar to each other, whereas the ones highlighted in the FS group differ from each other to a greater extent. Indeed, this factor entails a greater elaboration of the source text and an increased effort in trying to provide a possible interpretation of the source text item, albeit with poor results.

Another commonly mistranslated item is that of "in and about the premises", whose correct rendition has been achieved by a total of five students, three of them belonging to the PE group and two of them to the FS group. Leaving the phraseological aspect aside momentarily, as well as the cases of omission, a total of 17 and 11 mistranslation have been registered in the PE group and FS group respectively. In both groups the most frequent incorrect renditions of said item indistinctively appear to be either "sedi" (*the headquarters*) or "locali" (*indoor places*).

There are at least two different implications that deserve further elaboration. The first is that the MT pre-translated version of the text features "the premises" translated as "le premesse" (*the introduction*). More specifically, the context in which said item appears is the following:

*"per fare ed eseguire ogni atto e cosa richiesta e necessaria da fare*
*in e riguardo alle premesse"*

In fact, the source text does not feature a special section titled "the premises" to be referred to, and therefore said item should have been translated as "in relazione a quanto sopra esposto" (i.e., concerning what has been stated above), the general idea of

referencing something which has been illustrated above within the very same document is correct. Therefore, if the students belonging to the PE group had not altered the MT pre-translated text, their rendition would have been correct as regards accuracy, but inappropriate from a phraseological perspective, which constitutes a minor error and not a critical one, clearly a relevant improvement. It is indeed curious to observe that more than half of the PE students actively corrected "alle premesse" to instead opt for a rendition which is completely unrelated to the intended meaning and the linguistic context of the source text. Indeed, the physical location of the corporation, that is, "i locali", is less likely to be relevant than a reference to the premises of the document, especially within the context of legal language.

A possible reason behind said translation error could be provided by the very same context in which said translation item appears within the pre-translated text. Upon observing the vocabulary proposed by the MT system, words such as 'fare' (*to do*), 'eseguire' (*to perform*), 'atto' (*act*), and 'cosa' (*thing*) might give the impression to be related to something tangible and concrete such as the company's headquarter, rather than the document itself, which also had no section related to the premises. In this sense, MT might have been misleading rather than helpful, possibly causing the students to focus on the immediate context surrounding the item and thus ignoring the bigger picture.

The second implication worth mentioning is that, in this particular case, the FS group managed to grasp the general meaning of said item more frequently, on average. One possible explanation might be that, unlike the PE students, FS students were more inclined to consider and analyze the text in its entirety and therefore realized that the company's headquarter was not related to the topic of the text at all, thus making the correct choice more frequently.

Another accuracy error commonly occurring within the sample is the item "director ARRIS GROUP", which has been mistranslated respectively 8 and 5 times within the PE and FS group as "amministratore / direttore ARRIS GROUP" instead of "amministratore di ARRIS GROUP". Again, this is not surprising as the MT output translated the item as "direttore ARRIS GROUP", which could have led a higher number

of students to leave it unaltered in their final translations, possibly focusing only on the right terminology to be used and not on the global meaning they were conveying. However, the difference in the number of occurrences is not remarkable enough to lead to further and more consistent conclusions.

Moreover, the translation of the phrase "cause to be done" also seemed to represent a challenge to some extent, with 9 and 6 occurrences of translation errors within the PE and FS group respectively. Once again, this finding is unexpected as the MT system correctly conveyed the meaning of such phrase, literally translating it as "far fare", even though the correct level of formality was not certainly employed. Among the most common mistranslations, it is possible to find "autorizzare a fare" *(to authorize someone to do something)*, "causare" *(to cause),* "permettere di fare" *(to allow someone to do something)*, "delegare" *(to delegate)*, with "causare" *(to cause)* being the most widespread, possibly because of its similarity to the English verb. A tentative hypothesis behind this finding might be related precisely to the students evaluating "far fare" as inappropriate for the context of the document and legal translation in general and thus attempting to find an alternative option, without even considering that the actual meaning of "far fare" is correct. In this respect, it could be argued that MT once again proved itself to be misleading and thus negatively impacted the students' global view of the text.

Conversely, the FS group encountered more issue in providing an accurate rendition of the phrasal verb "to be about to", the context of the source text being: "which is about to file an annual report". While the item was mistranslated only once in the PE group, the FS group registered 7 cases of incorrect renditions, e.g. "che si occupa di" *(whose main occupation is)*, "incaricata di" *(whose main purpose is)*, "si presta a" *(which is suitable for)*. Clearly, in this case the PE group had a clear advantage as the MT system correctly translated it as "sta per" and therefore the correct meaning had already been provided.

Finally, the very last portion of the text preceding the testimonium clause appeared to be rather problematic for the FS group, i.e., "all that said attorneys-in-fact and agents or their substitutes may lawfully do or cause to be done by virtue hereof." To be more

precise, even though a vast number of students in the PE group incorrectly translated some elements or portions of such clause, none of their renditions was so inaccurate to hamper the global understanding of the text. Conversely, this phenomenon surprisingly occurred more than once within the FS group, collecting a total of 9 occurrences. Examples of the incorrect translations of the clause are listed below:

- che tutti i suddetti procuratori di fatto e mandanti o loro sostituti possano farà in modo che vengano compiute nel rispetto della legge *(that all the aforementioned attorneys-in-fact and principals or their substitutes can ensure that they are carried out in accordance with the law)*
- quanto affermato dal procuratore e dagli agenti o dai loro sostituti possono legittimamente fare causa in virtù del presente documento *(what stated by the attorney and the agents or by their substitutes they can lawfully sue by virtue hereof)*
- che i suddetti procuratori di fatto e agenti o i loro sostituti sono legittimamente autorizzati ad agire o a delegare in virtù della presente *(that the aforementioned attorneys-in-fact and agents or their substitutes are lawfully authorised to act or delegate by virtue hereof)*
- che i rappresentanti legali e agenti appena menzionati o i loro sostituti faranno in modo che tutte le azioni vengano adempiute nel rispetto della legge *(the legal representatives and agents who have just been mentioned or their substitutes will ensure that all actions are carried out in accordance with the law)*

Once again, the presence of a pre-translated text greatly assisted the students in the PE group in this respect, as the MT output translated said portion of the text as follows:

*tutto ciò che detti procuratori effettivi e agenti o i loro sostituti possono legittimamente fare o far fare in virtù del presente documento.*

Leaving aside the other translation error categories, the overall meaning of the clause is correct, which obviously prompted the students to grasp it and implement the necessary modifications in order to convey it. In this sense, the MT output provided a clear and distinctive advantage over from-scratch translation.

### 4.2.2 Completeness errors

Analyzing the completeness of the text, a relevant portion of students failed to translate the item "cause to be done", more precisely 5 within the PE group and 4 within the FS group. As already explained above, said item had indeed been translated by the MT system, therefore students in the PE group were not required to notice and correct an omission within the MT output, which clearly would have required more effort.

It can therefore be argued that perhaps said item was occasionally omitted because, as already explained in the accuracy section, "far fare" certainly seems inappropriate for a legal document because of the formality level. As its meaning might not appear much different from "fare", students might have been led to consider its inclusion in the target text as a redundant and unnecessary element and therefore removed it, clearly not realizing that instead they had omitted an important part of the text. However, given the irrelevant difference in occurrences among the two groups, the MT rendition of said item is unlike to be the reason behind its omission, which could more realistically lie in the apparent redundancy of the verb within the context.

Another frequently omitted item is the term "agent", which once again has been translated by the MT system correctly as "agente" And yet, 4 students belonging to the PE group and 5 belonging to the FS group did not translate said term. Perhaps the same tentative explanation provided above can be applied to this case as well: as MT does not seem to be the cause of its omission, the term was probably regarded as a synonym for "attorney-in-fact" and therefore excluded as it did not seem necessary within the context. The same can also be applied to the omission of "hereby", which has been left untranslated 7 and 8 times within the PE and the FS group respectively.

### 4.2.3 Logic errors

In terms of logic, one of the most commonly mistranslated items of the source text was 'as amended'. To be more precise, such translation error registered 10 and 6 occurrences within the PE and the FS groups respectively when evaluated as a logic error. Among the most common illogical mistranslation we can find "come emendato" *(like amended)*,

"come modificato" (*like modified*), "modificato" *(modified)*, which clearly do not make a lot of sense, especially when inserted between commas with no explanation or context provided:

- il quale sta per compilare un rapporto annuale ai sensi della sezione 13 o 15 (d) dell'Atto relativo alle Borse Valori del 1934, **come emendato**, nella forma 10-K *(which is about to file an annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, **like amended**, on Form 10-K)*
- che sta per presentare una relazione annuale ai sensi dell'art. 13 o 15 (d) del Securities Exchange Act of 1934 (Atto per i titoli e gli scambi del 1934), **come modificato**, sul modulo 10-K *(that it is about to file an annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, **like modified**, on Form 10-K)*
- la quale è in procinto di depositare il rapporto annuale ai sensi della sezione 13 o 15 (d) del Securities Exchange Act del 1934, **modificato**, sul modulo 10-K *(which is about to file its annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, **modified**, on Form 10-K)*

Comparing the number of occurrences, it is possible to see that the PE group registered a slightly higher number of cases of such errors, which is quite surprising considering that the MT system translated it correctly, i.e., 'e successive modifiche' (*as amended*). It is indeed curious to observe that 10 students out of 25 were prompted to correct said rendition with another one that ultimately did not make sense, such as the one mentioned above. However, given the unremarkable difference of occurrences, it is possible to assume that said mistranslations were not caused by MT in itself but rather by the students' lack of knowledge, which resulted in them translating the item literally without even realizing that said rendition did not make sense within the context.

Another frequent logic error is the apparently simple translation of "a Delaware corporation", which registered 10 and 4 occurrences within the PE group and the FS group respectively. Within the PE group, the students who mistranslated such item did not try to render it into Italian at all, as they simply wrote "Delaware corporation" without providing a translation. Clearly, for an Italian reader said element makes no sense at all. The same rendition was provided by 2 students out of 4 within the FS group, with the

other two translating it as "sottostante alla Delaware Corporation" (*underlying the Delaware Corporation)* and "Corporazione Delaware" (*the corporation Delaware*). Once again, the translation errors registered within the PE group are all very similar to each other, or, in this case, completely identical; conversely, more variety is shown within the FS group's mistranslations. Indeed, in this case MT greatly contributed to said error as the translation provided by the software was precisely "Delaware Corporation" and, given the differences in the occurrences registered within the two groups, it is possible to assume that the translation procedure adopted clearly had an influence on such choice.

This figure might support the hypothesis that when students observe a rendition of the source text which they evaluate as plausible and comprehensible, they may be more inclined not to correct it when compared to what they would opt for when translating from scratch. Once again, this factor can be evaluated as relatively positive when the MT provides a correct translation solution (even though that is not always the case, as demonstrated above), but clearly as negative when the contrary happens. In general, the students' observable tendency to excessively rely on the MT choices ultimately leads them to be less inclined to attempt to understand the meaning of the text and provide an interpretation, however incorrect that might be.

The last logic error worth analyzing does not belong to the source text, but rather, to the target text. To be more specific, it was observed that more than one student translated 'his or her' and 'true and lawful' as "il/la suo/sua vero/a […] vero/a e legittimo/a", despite the appointed attorneys-in-fact and agents (Robert Stanzione, Lawrence Margolis ad David Potts) being all men. Therefore, only the male pronoun is required in Italian. The occurrences of said phenomenon are relatively low, i.e. 2 within both the PE and the FS groups, that is, 4 in total. It is clear that the use of MT tools did not impact said choice, but possibly it could be attributed to the translators' young age and the widespread tendency among young people to advocate against gender discrimination (Lombardi et al., 2022), which, however important, should not be happening at the expense of logic and grammar.

To conclude the present sub-section, it could be argued that occasionally a portion of students failed to understand a really basic notion, i.e. the target text in itself must make sense and have a logical meaning. A tendency to passively accept the MT's solutions without questioning the overall sense of said rendition within the document can clearly be observed as regards part of the PE group, as witnessed by a total of 20 occurrences concerning the translation errors reported above within the present subsection. A possible hypothesis behind this tendency might be related to the students' lacking legal knowledge and defective mastery of legal language. Having possibly taken for granted their lack of understanding of legal notions, they might have overrelied on the MT system despite its apparently nonsensical output. Clearly, the time component is also to be taken into consideration; therefore, another possible explanation may lie in the students' impossibility to look into every single element of the text and thus leaving out what they regard as less relevant elements.

### 4.2.4 Facts errors

In terms of incorrect rendition of factual information, the quantitative analysis did not display a significant number of occurrences, nor a remarkable difference among the two groups, even though a higher number of occurrences was registered within the FS group, i.e. 11 vs 18 occurrences.

Some of the most common errors belonging to this category are related to the elements of the source text concerning the company name, i.e. "ARRIS Group, inc., a Delaware Corporation". More specifically, within the PE group 1 student mistranslated "corporation", one student mistranslated "inc." and two students mistranslated the company's name (respectively with "S.p.A.", "S.r.l." "Gruppo ARRIS"). Moreover, one student translated Delaware Corporation with "una società con sede nel Delaware" (*a company whose headquarters are located in Delaware*), which is incorrect as its executive offices are located in Suwanee, Georgia. While the MT output did not provide the correct rendition of the term "company", all the other items were translated correctly and thus did not require editing. Conversely, within the FS group the last translation error reported registered 2 occurrences. As for the other items, their corresponding number of mistranslations is 1, 3 and 3 (respectively with "Società per Azioni" (*joint-stock*

*company)*, "S.p.A." (*joint-stock company)*, "inc. (S.p.A.)" (*inc. (joint-stock company))* (x2), "Arris international" (*Arris international)* (x2) and "Gruppo ARRIS" *(ARRIS Group)* (x2)). A remarkable difference within such figures cannot be highlighted, but the occurrences concerning the translation of "inc." might be somewhat notable as once again MT provided an advantage in the rendition of such term given that it had been correctly translated in the first place.

However, the PE group seemed to encounter slightly more difficulties in translating the item "hereunto", translated as "al presente accordo" (*to the present agreement*) 4 times, as opposed to the FS group, which only mistranslated it 2 times using the exact wording. Given the low number of occurrences and the fact that the MT system translated the item as "il presente documento" *(the present document)*, the reason behind this error cannot be traced to the use MT tools.

Finally, the last aspect worth mentioning is the translation of two specific items, i.e. "the Securities Exchange Act of 1934" and "the Securities and Exchange Commission". Both items have been mistranslated as a number of students attempted to translate such official names into Italian, though not selecting the official Italian translations and thus not referencing the correct Act or the Securities and Exchange Commission, but rather non-existent institutions. More specifically, said items have been mistranslated one time each within the PE group and 3 and 2 times respectively within the FS group. Even though it is not possible to highlight a significant difference in the number of occurrences, it could be argued that the MT pre-translated text leaving both items in English, thus offering a correct and acceptable rendition, might have somewhat influenced such findings, albeit slightly.

### 4.2.5 Smoothness errors

As far as smoothness is concerned, the incidence of said parameter was not really significant. As already illustrated, the 4 detected errors were all made by the PE group. More precisely, three of them are related to the translation of the same item, "to be done". The context of such mistranslations will be provided below.

- "per compiere qualsiasi azione necessaria **da fare** circa la questione precedentemente indicata" *(to carry out any necessary action **to be done** on the above-mentioned matter)*
- "di eseguire ogni singolo atto e cosa richiesta e necessaria **da essere svolta**" *(to perform each and every act and thing required and necessary **to be performed)***
- "per eseguire qualsiasi atto occorrente e che **necessita di esser compiuto**" (to perform any act that needs **to be performed**)

Upon reading the MT rendition of said item in context, "per fare ed eseguire ogni atto e cosa richiesta e necessaria da fare", it is clear that the pre-translated clause is far from smooth itself. At first glance, a tentative conclusion might entail that the human component indeed makes the difference in rendering the text altogether smooth, thus improving its readability. However, as illustrated above (see chapter 1, section 3.1.3) private legal documents are known to feature long and complex sentence structures, which result in the text being far for smooth and easily readable. Therefore, the legal genre as a whole is probably not the adequate one to corroborate said conclusion.

### 4.2.6 Tailoring errors

As for tailoring, the figures do not reveal a high incidence of translation errors belonging to this category. The most commonly mistranslated item appears to be "all that", whose context within the source text is the following: "confirming **all that** said attorneys-in-fact and agents or their substitutes may lawfully do […]". Said item has been mistranslated 18 and 12 times within the PE and FS group respectively.

There are at least two aspects worth commenting related to such finding. The first is that all the incorrect renditions highlighted within the PE group were identical to each other, namely "tutto ciò che", which unsurprisingly is the same rendition provided by the MT tool, once again negatively influencing the students in their final output. Conversely, within the FS group at least three different incorrect translation solutions have been provided: namely "tutto ciò che" (*all that)*, "tutto quello che" (*all that*) and "tutto quanto che" (*all the things that*), which once again highlights a larger degree of variety in the end products obtained.

The second aspect is related to the other two tailoring errors registered within the FS group, i.e. "**said** attorneys-in-fact and agents" translated as "i rappresentanti legali e agenti **appena menzionati**" (*the legal representatives and agents who have just been mentioned*) and "their substitutes" translated as "chi per loro" (*or someone who will do it for them*). Such items have never been mistranslated within the PE group, as the MT output already provided their correct translation, once again influencing the students' performance. Therefore, it seems that the PE students' average performance as regards the tailoring component is intrinsically related to that of the MT output, which prevents them from making their own evaluations and selecting the appropriate vocabulary in terms of register and formality, however incorrect it might be.

### 4.2.7 Sub-language errors – terminology

As far as terminology is concerned, "attorney-in-fact" and "agent" certainly constitute the two most problematic terms. The number of translation errors concerning "attorney-in-fact" exceeds that of "agent", as the latter has been mistranslated a total of 20 times, 11 within the PE sample and 9 within the FS sample. Before delving into the analysis of said terminological errors and their respective renditions, it is worth examining another important aspect concerning such terms: that is, the terminological consistency, as both terms appear in the source the text three times each. Indeed, while a portion of students has been consistent in their translation, others have translated such terms in different ways throughout the text, which may signify that they either mistranslated them twice or they translated them both correctly and incorrectly. Such data concerning terminological consistency are reported on Table 4.1 below.

|  | attorney-in-fact | | agent | |
|---|---|---|---|---|
|  | PE group | FS group | PE group | FS group |
| Consistent mistranslations | 12 | 17 | 7 | 5 |
| Inconsistent mistranslations | 10 | 4 | 1 | 1 |
| Inconsistently omitted | 0 | 0 | 2 | 1 |

*Table 4.1: terminological consistency of the terms "attorney-in-fact" and "agent"*

As can be sees from the table, the data concerning the item "agent" seem somewhat consistent, not really revealing remarkable differences. However, a few observations can be made as regards the item "attorney-in-fact". Firstly, the item was omitted by no translator, in neither of the groups. Secondly, the number of consistent mistranslations within the FS group was considerably higher than that of the PE group, which conversely registered a significantly higher number of occurrences with regard to the inconsistent mistranslations of the term. Once again, the MT output was inconsistent itself in the rendition of said item, first translating it with "procuratore in fatto" (*attorney in fact*) and then with "procuratori effettivi" (*effective attorney*). The findings thus strongly suggest that the use of MT does not help to enforce terminological consistency. Conversely, given that "agent" has been consistently translated by the MT output, no significant difference in the number of inconsistent renditions has been found among the two subgroups.

Within the two groups, some of the most common mistranslations for "attorney-in-fact" were "procuratore di fatto" *(de facto attorney, 24 occurrences)*, "amministratore di fatto" *(de facto administrator, 2 occurrences)*, "rappresentante legale" *(legal representative, 6 occurrences),* "procuratore legali" *(legal attorney, 2 occurrences),* "avvocato" *(lawyer, 7 occurrences),* "avvocato di fatto" *(de facto lawyer, 4 occurrences)*, with "procuratore di fatto" being the most popular option (24 occurrences) regardless of the subgroup. Once again, students compensated their lack of knowledge in the legal field with a literal translation without researching what "procuratore di fatto" means and whether such term is used in the Italian legal genre of "procura". Within the corpus I collected for the present research, the Italian term "procuratore" registers 84 occurrences, whereas "procuratore di fatto" does not appear at all. Clearly, the right translation option to be selected was that of "procuratore".

As for the renditions of "agent", "mandatario" and "rappresentante" appear to be the most common choices – not considering omissions, which were previosuly discussed. Within the comparable corpus, the term "mandatario" does not appear at all, whereas "rappresentante" registers a total of 29 occurrences. However, said term only appears in the final part of the document, where a signature is required. An example of occurrence of the term "rappresentante" is the following:

Another term which was often mistranslated is that of "Corporation". A remarkable tendency that can be observed is the rendition of such term with its English equivalent, i.e. 'Corporation', therefore showing no attempt to find the right Italian equivalent. More precisely, said rendition registered a total of 15 and 6 occurrences within the PE and FS group respectively. It is probably unsurprising that the MT output consistently translated "Corporation" as "Corporation", which is inevitably linked to the differences in such number of occurrences. Once again, MT has proved to be misleading as it negatively impacted the students' translation choices. Another surprising fact is that the Italian calque of said term, i.e. 'corporazione', registered a very low number of occurrences, more precisely 1 within the PE group and 2 within the FS group. This shows that the selection of an English term has been regarded, on average, as more correct and adequate than the literal Italian translation of said term.

A possible explanation could be that the term "Corporation" is relatively widespread in the Italian language as it is often associated to company names and for this reason it may sound somewhat familiar; therefore, trainee translators belonging to the PE group possibly evaluated the pre-translated text it as correct, without questioning whether or not such term is actually used in private legal or economic documents in general – clearly, provided that "Corporation" is not part of the company's name, which wasn't the case as regards the selected source text. Furthermore, the term "corporazione" has a different meaning in Italian. i.e. a legally recognised association of individuals exercising the same trade or profession, aimed at regulating practice and providing for the common interest (Garzanti, 2008). Therefore, it could be argued that commonly widespread English terms may tend to appear more accurate, which has been indeed encouraged by the MT tool providing said rendition in its output.

Moreover, it is indeed worth noting that the item "their substitutes" has only been mistranslated by students belonging to the FS group. Although some of them concerns mechanics, tailoring or accuracy errors, which are not to be discussed in this section, one occurrence has been registered as a terminology error, i.e. "supplenti" (*substitute teacher*). Conversely, said item never once appears within the PE group among the

reported translation errors, regardless of the error category. It is clearly no surprise that the MT rendition of such term was correct, namely "sostituti", which also features within the collected corpus of Italian "procure".

As far as the title is concerned, the occurrences of said translation error amounts to 3 and 9 within the PE and FS groups respectively. The correct rendition provided by the MT software was indeed helpful to the PE group, once again greatly influenced by the adopted translation procedure. As for the FS group, the most common incorrect rendition was "mandato"; however, one student translated the item as "procura generale" and another one as "procura alle liti", thus showing that research had been indeed carried out. The difference with the other phraseological items listed above is that the phrase "Power of attorney" is used exclusively within a legal context, which might have made it easier for the MT system to retrieve its correct rendition into Italian, which in turn allowed more students to correctly translate the title. Conversely, words such as "power", "corporation", "each of them", "act and thing" are not employed exclusively within the legal sphere but in a broader range of contexts, which in turn made it complex for the system to retrieve the correct terminology, thus misleading the students.

Finally, the frequency of the translation error concerning the term "director" also presents peculiarities. Said item registered 6 and 19 occurrences within the PE and FS groups respectively, which clearly shows a remarkable difference. Within both groups, the most common incorrect rendition was "direttore", (the correct one being "amministratore", as confirmed by the corpus of Italian "procure" with 14 occurrences), which is not surprising as it is the literal translation of the term. However, it is indeed peculiar that the PE group was more successful in translating it, even though the rendition of the MT output was precisely "direttore". A possible explanation may be related to the context of such term provided by the pre-translated text, i.e. "il sottoscritto direttore ARRIS Group". Perhaps upon reading such phrase PE students realized said rendition needed to be corrected and thus researched the term more frequently than the FS students, who were instead more prone to translate it literally as they were probably already familiar with the word. In this case, the MT rendition might have provided a valuable input in causing the students to research the term and spot the translation error, which in

turn did not happen with the FS group, as they were probably feeling more confident as regards the meaning of "director" and therefore were less inclined to verify a notion they were already quite sure of.

### 4.2.8 Sub-language errors – phraseology

One of the various items to deserve attention within this subsection is certainly "with full power", given its incredibly high number of mistranslations across the two groups. As the item was repeated twice within the source text, once again a portion of students translated it inconsistently and it was therefore listed in the translation error lists twice. More precisely, said phenomenon occurred 4 and 3 times within the PE and FS group respectively. In this case, in the MT pre-translated text the item has been (incorrectly) translated both times with "con i pieni poteri". Once again, a correlation between the MT output and the PE students' tendencies can be inevitably observed.

Within the entire sample, the item has been correctly translated by a total of 3 students, all of them belonging to the FS group, although one student in the PE group provided the correct translation one time out of two, which is "con i più ampi poteri", as confirmed by the 13 occurrences detected within the collected corpus of Italian "procure". While this certainly can represent a coincidence, given the low number of students involved, it is indeed surprising that not even one student belonging to the PE group was able to correctly translate such phrase both times. The tentative explanation provided above could be applied here as well: as PE students were probably feeling confident about the meaning of said phrase, which had been correctly conveyed by the MT system from the point of view of accuracy, all of them probably felt inclined to confirm the MT's phraseological choice without further research.

As for the incorrect translation solutions provided, it is indeed no surprise that the entirety of the PE group translated said item as "con i pieni poteri", thus leaving the MT rendition unaltered. The three students who inconsistently translated such phrase – clearly excluding the one who translated it correctly one time out of two – provided said alternative renditions: "pieno potere" (*full power*), "con pieni e ampi poteri" (*with full and ample power*), "il potere" (*the power*). Conversely, within the FS group it is possible

to observe a greater variation in the incorrect renditions provided: "con i pieni poteri" (*with full powers*), "con il pieno potere" (*with full power*), "con il potere" (*with the power*), "con la piena autorità" (*with full authority*) (with the first two options being the most frequent). The observations highlighted before concerning variation within the end products analyzed therefore appear to be confirmed. Moreover, it is interesting to highlight that a portion of students belonging to the FS group (9 out of 25) translated "full power" with "con il pieno potere", thus using a singular form instead of a plural one and therefore being more literal, which rarely happened within the PE group.

Another evident phraseological error is that related to the testimonium clause, i.e. "the undersigned has hereunto set his other hand and seal", whose correct translation should have been "letto, confermato e sottoscritto" or any equivalent rendition such as "firma del legale rappresentante", "firma del delegante", as confirmed by the collected corpus of Italian "procure". As already illustrated, no student was able to correctly translate such part of the document, regardless of the translation procedure adopted. However, it is not uncommon for Italian legal documents to end in such a way and therefore, it is quite difficult to assume that none of the participants were familiar with such phrase and the general structure of legal documents in general. A possible explanation could be related to the lack of the document layout, as students had only been provided with the actual text divided into three different segments and therefore no one possibly felt entitled to make such a drastic change, thus focusing exclusively on the textual component of the sentence and how to correctly render it into Italian. Indeed, the use of MT did not have an impact on the frequency of this specific translation error. Among the most widespread mistranslations we can find "il sottoscritto ha apposto la propria firma" (*the undersigned has affixed their signature*), "il sottoscritto ha apposto la propria firma in calce" (*the undersigned has affixed their signature below*) "il sottoscritto appone la firma in calce e il timbro" (*the undersigned has affixed their signature and seal)*, which appear to be fairly similar to one another. Unlike the PE group, which tended to confirm the MT rendition or at least alter it as little as possible, within the FS group alternative solutions have been provided more frequently, such as "il sottoscritto dichiara e firma" (*the undersigned declares and signs)*, "il sottoscritto ha firmato" (*the*

*undersigned has signed*), "il sottoscritto firma e appone sigillo aziendale" (*the undersigned signs and affixes corporate seal*).

The same can be applied to all the other frequent phraseology errors listed above, such as "and each of them", "ratifying and confirming", "IN WITNESS WHEREOF", "(the "Corporation)", "act and thing" and "all capacities": while the use (or lack of) of MT does not result in a substantial improvement of one of the two subgroups over the other, it has been observed that the renditions of the PE group are on average very similar, if not almost identical, both to each other and to the original MT output. This observation might lead to the conclusion that, while trainee translators certainly encounter considerable difficulties in retrieving the right phraseology, the use of MT tools only results in an end product which is both incorrect from a phraseological point of view and heavily influenced by the MT output. Conversely, the FS group tends to convey a literal rendition of said phraseological elements, especially when their meanings – or at least the literal ones – are already clear to them due to their previous knowledge. Table 4.2 reports the most common incorrect renditions associated to said items, their frequency in the sample and their corresponding correct translation into Italian, as supported by my corpus of Italian "procure".

| Source text item | Incorrect renditions | Correct rendition |
|---|---|---|
| and each of them | "e ciascuno di loro" (16), "e ognuno di loro" (6) (FS) | "con firma libera e disgiunta" |
| ratifying and confirming | "ratificando e confermando" (36) | "sottoscrivendo" |
| IN WITNESS WHEREOF | "In fede di che" (24) | (It does not require to be translated as its purpose is to attest to something in the document being signed) |

| (the "Corporation) | "(la "Società")" (32), "(la "Corporation") (8) | (di seguito la "Società", di seguito anche la "Società") |
|---|---|---|
| act and thing | "ogni singolo atto e cosa" (10), "qualsiasi atto" (7) (FS), "tutti gli atti" (6) (FS) | "atti" |
| all capacities | "capacità" (31) | "facoltà" |

*Table 4.2: the most common incorrect phraseological renditions within the sample and their respective occurrences*

Moreover, given the overly literal translations of said items provided by both groups, it is possible to hypothesize that the problem with retrieving the Italian equivalents of said phrases is not only related to the researching process itself but occurs even prior to that. In order for students to be able to correctly translate a phraseological construct, they need to approach it as such and thus recognize that a word-for-word translation of all the elements of the phrase will not provide the correct rendition. Clearly, a higher level of familiarity with both Italian and English legal phrases can certainly aid trainee translators in this respect.


Finally, the last point of this section is dedicated to the analysis of the mistranslations concerning introductory clause of the document, i.e. "KNOW ALL MEN BY THESE PRESENTS"; the occurrences of said translation error amount to and 4 and 10 within the PE and FS groups respectively. The MT rendition of such phrase was not correct as it made no sense: "CONOSCERE TUTTI GLI UOMINI DAI PRESENTI", which corresponds to the Italian literal translation of such item. Within the FS group, some of the mistranslations of said item include:

- TUTTI GLI UOMINI SAPPIANO TRAMITE I PRESENTI (*ALL MEN KNOW THROUGH THOSE PRESENT*)
- SAPPIATE VOI TUTTI QUI PRESENTI (*MAY ALL OF YOU HERE PRESENT KNOW*)
- IL PUBBLICO PRENDE ATTO DEL SEGUENTE *(THE PUBLIC TAKES NOTE OF THE FOLLOWING)*

- VENGA RESO NOTO ALLE PERSONE QUI PRESENTI (*BE MADE KNOWN TO THE PEOPLE PRESENT HERE)*

A possible correct rendition of such item was instead "con la presente scrittura" or the omission of said introductory phrase altogether, as confirmed by the collected corpus of Italian "procure". A possible explanation behind the differences in occurrences among the two groups may be related to the fact that the MT output was clearly nonsensical, which might have led PE students to perform more research in order to retrieve the correct phraseology. As opposed to it, once again a portion of FS students attempted to translate such phrase with a literal rendition, clearly with poor results.

### 4.2.9 Idiomatic errors

Two out of three idiomatic errors, one detected within the PE group and one within the FS group, concerns the use of the first person within the document, since all the Italian "procure" collected in the corpus are written in third person and never in first person. Generally, it is common knowledge that Italian legal documents are written using the third person, which makes the use of the first person unidiomatic. The last idiomatic error, detected within the FS group, concerns the translation of the item "to be filed with", which has been translated as "da essere archiviato con", denoting an idiomatic use of language since the verb "archiviare con" is not in use in the Italian language, although the meaning of the clause remains understandable.

Such data are not really relevant for the purpose of said investigation, since they do not lead to relevant conclusions about the use of MT of any kind, mostly because, as already mentioned above, legal language in general is not known to be idiomatic in the first place.

### 4.2.10 Mechanics errors

One of the most notable mechanics error concerns the translation of "to sign", which has been mistranslated a total of 14 and 13 times within the PE and FS group respectively. Within the PE group, the most common mistranslation was "di firmare", even though the

MT output translated it as "per firmare". An example of said translation error in context is the following:

> costituisce e nomina Robert Stanzione, Lawrence Margolis e David Potts […] , con pieni poteri e capacità, **di** firmare il modulo 10-K della "Società" (*constitutes and appoints Robert Stanzione, Lawrence Margolis and David Potts [...] , with full power and capacity,* **of** *signing Form 10-K of the "Company"*)

In all likelihood, the students opted for the preposition "di" to connect it with the word immediately preceding said item, that is, "capacities", which had been translated as "capacità". Within the FS sample, incorrect translation options such as "di firmare" (*of signing*), "per firmare" (*to sign*) and "a firmare" (*for singing*) were adopted, once again showing a greater variety. In this case, it cannot be said that MT influenced the incidence of such error, which has probably been committed because students belonging to both groups were too focused on the immediate context of the item to examine the text as a whole and realize that "to sign" was directly connected to "constitutes and appoints". Clearly, the lack of punctuation of the source text and its long and complex sentence structure did not help, but such factors are mostly related to the nature of legal language in general and not to the translation procedure adopted.

Another section of the source text which has been frequently subjected to mechanics errors is the name of the company, ARRIS Group. Instead of writing "amministratore di ARRIS Group", a number of translators added an articulated preposition, which was not required as ARRIS Group is an English name and thus neither masculine nor feminine. The occurrences of said translation error are 8 and 11 within the PE and FS groups respectively. In this case, the selected translation procedure does not seem responsible for such translation error, especially considering that the MT output translated the phrase with no preposition at all. In conclusion, the use of MT does not seem to affect the end product in terms of mechanics errors.

## 4.3. Translation quality assessment

As concerns translation quality assessment, the results of the assessment, expressed as percentages, are listed in Table 4.3 and expressed in Figure 4.6 as well.

| Quality assessment of the students belonging to the PE group | Quality assessment of the students belonging to the FS group |
|---|---|
| Student 1: 53% - insufficient quality | Student 56: 48% - insufficient quality |
| Student 2: 58% - insufficient quality | Student 57: 46% - insufficient quality |
| Student 3: **74% - sufficient quality** | Student 59: 42% - insufficient quality |
| Student 4: 53% - insufficient quality | Student 60: 39% - very low quality |
| Student 5: **64% - sufficient quality** | Student 61: 25% - very low quality |
| Student 6: **64% - sufficient quality** | Student 62: **84% - high quality** |
| Student 7: 59% - insufficient quality | Student 63: **73% - sufficient quality** |
| Student 8: **85% - high quality** | Student 64: **76% - sufficient quality** |
| Student 9: **66% - sufficient quality** | Student 65: 47% - insufficient quality |
| Student 10: 58% - insufficient quality | Student 66: **95% - high quality** |
| Student 11: **64% - sufficient quality** | Student 67: 27% - very low quality |
| Student 12: 58% - insufficient quality | Student 68: 57% - insufficient quality |
| Student 13: **65% - sufficient quality** | Student 82**: 85% - high quality** |
| Student 14: **63% - sufficient quality** | Student 70: **62% - sufficient quality** |
| Student 15: **76% - sufficient quality** | Student 71: 31% - very low quality |
| Student 16: 58% - insufficient quality | Student 72: 37% - very low quality |
| Student 17: 58% - insufficient quality | Student 73: **78% - sufficient quality** |
| Student 19: **69% - sufficient quality** | Student 74: 25% - very low quality |
| Student 20: **78% - sufficient quality** | Student 75: 50% - insufficient quality |
| Student 21: 54% - insufficient quality | Student 76: 43% - insufficient quality |
| Student 22: 46% - insufficient quality | Student 77: **64% - sufficient quality** |
| Student 23: **67% - sufficient quality** | Student 78: 47% - insufficient quality |
| Student 24: **73% - sufficient quality** | Student 79: **60% - sufficient quality** |
| Student 25: 44% - insufficient quality | Student 80: **60% - sufficient quality** |

| Student 26: **75% - sufficient quality** | Student 81: 11% - very low quality |
|---|---|
| Average rate: **63,28% - sufficient quality** | Average rate: 52,48% - insufficient quality |

*Table 4.3: translation quality assessment of the sample of translations*
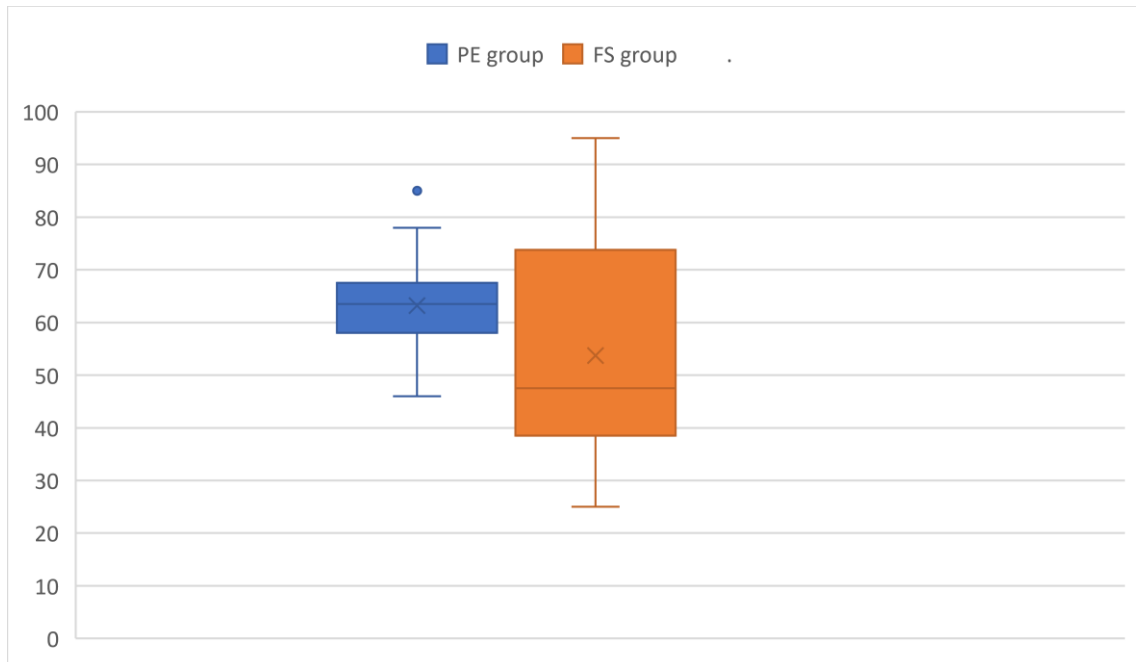


*Figure 4.5: TQA results*

As can be seen from Table 4.3, the observation emerged at the beginning of the analysis has proven to be correct: the PE group performed on average significantly better than the FS group. It is indeed striking to see that the average evaluation of the FS group is not even up to par, which does not seem surprising considering a number of really low final scores detected in the group, such as 39%, 25%, 31%, 27% and even 11%. Paradoxically, the FS group also recorded a higher number of high-quality translations, such as 85%, 84% and even 95%. Conversely, the PE group registered no low-quality translation, but one single high-quality translation.

Moreover, as shown in figure 4.5, it is indeed possible to observe a greater variety within the scores of the FS group, whereas the PE scores all range from 53% to 73% on average, with few exceptions slightly above or below. Of course, this result does not mean that the students belonging to the PE group were on average more skilled, but rather that

the use of MT possibly prevented them from displaying their actual translation skills as they were influenced by the MT output and its translation choices more often than not, as highlighted numerous times during the qualitative analysis of the data. Conversely, from-scratch translation allowed the gaps between the students to come to light, as regards both their legal knowledge and their translation skills. Therefore, if the goal is that of obtaining a higher-quality end product, Post Editing indeed seems the best choice for trainee translators. However, if the ultimate objective is that of encouraging students to attempt to understand the source text and its meaning and provide an interpretation, with the risk of being incorrect and making mistakes in the process, from-scratch translation is probably the solution to adopt, especially during the learning process where poor-quality translations are not supposed to entail repercussions.

## 4.4 Chapter four: highlights and key points

- The quantitative analysis of the data highlighted that the average number of translation errors per student was significantly higher within the FS group, that is, translating through post-editing has enabled students to commit a lower amount of translation errors. The error severity levels were equally distributed among the two groups, with minor errors being the most common and critical errors being the least common. In terms of error categories, phraseology, accuracy and terminology were the most problematic, regardless of the translation procedure adopted by the participants. Conversely, smoothness, tailoring and facts did not represent an issue, probably due to the intrinsic characteristics of legal language.

- In the qualitative analysis of the data, a clear tendency was observed: the translation choices provided by the students belonging to the PE group appear to be quite similar, whereas mistranslations registered within the FS group differ from each other to a greater extent, which entails a greater elaboration of the source text and an increased effort in trying to provide a possible interpretation of it. Moreover, students may be more inclined not to correct an error upon observing a rendition of the source text evaluated by them as comprehensible, when compared to the rendition they would opt for when translating from scratch.

- In terms of translation quality assessment, overall the PE group performed significantly better, as the average evaluation of the FS group is not even sufficient. It is possible to hypothesize that the use of MT possibly prevented the PE students from displaying their actual translation skills as they were influenced by the MT output, whereas from-scratch translation allowed the gaps between the students to come to light, as regards both their legal knowledge and their translation skills.

# Conclusions

The present dissertation aimed at answering two main research questions, related to the translation procedure which can result in a higher-quality final products and the potential correlations between from-scratch and MT post-edited translations and specific translation error typologies. Furthermore, the study attempted to identify potential areas of strengths of Machine Translation and the extent to which such tool reinforces and promotes the students' understanding of the source text, though the nature of the data only allows tentative hypothesis to be drawn. Owing to a detailed and precise error-based revision of the data following Mossop's parameters, it has been possible to provide an ultimate answer to said questions.

*Research question number one: "Which procedure led to higher quality translations?"*

On average, it is possible to state that the procedure which resulted in higher-quality translations is indeed post-editing. This figure has been confirmed by numerous indicators throughout the analysis of the data, e.g. the comparison of the average number of translation errors per student detected in the two subgroups, the frequency of the translation error categories and the translation quality assessment of the translations. Therefore, Post Editing indeed has proven to be the best choice for trainee translators if the goal is that of obtaining a higher-quality end product. However, within the FS group three translations were evaluated as 'high-quality translations', whereas within the PE group only one translation was regarded as high quality. Therefore, such findings prove that even though the adoption of MT provides a considerable aid in producing a higher-quality target text, particularly skilled students are capable of providing a good-quality translation regardless of the translation procedure adopted.

*Research question number two: "Do from-scratch and MT post-edited translation correlate with specific translation error typologies?"*

While both subgroups encountered a great number of difficulties in terms of phraseology, the adoption of Machine Translation provided considerably more benefits for the students in terms of accuracy and terminology, which are the two error typologies from-scratch translation correlates to in particular. In this sense, the MT output often provided a distinctive advantage over from-scratch translation. Conversely, post-editing correlates to the lack of terminological consistency, as demonstrated by the findings, and the logic error typology, though not in a remarkable way, which might suggest the lack of a global, comprehensive perspective on the source text to favour a more limited focus on the immediate context of the word being translated. Moreover, smoothness and tailoring also displayed a limited correlation to PE translation, as the MT output negatively influenced the participants in selecting the appropriate vocabulary in terms of register and formality and thus enabled the FS group to be more successful in this respect, even if to a limited extent. However, given the long and complex sentence structures of legal texts and the low incidence of said error typologies within the sample, said hypothesis cannot be corroborated by our findings due to the intrinsic characteristics of the legal genre.

The areas of strength of Machine Translation applied to legal translation didactics possibly appear to be intrinsically connected to its limitations. More precisely, it has been observed more than once that a rendition of the source text provided by the MT system which students evaluate as plausible and comprehensible is more inclined not to be corrected, which has been particularly highlighted through a comparison with the options selected by the FS group. This factor can generally be evaluated as positive when the MT output provides a correct rendition but clearly as negative when the contrary occurs. Furthermore, terms and phrases exclusively employed within a legal context have been correctly rendered by the MT system and thus correctly translated by the PE group more frequently. Conversely, words and phrases which are not employed exclusively within the legal sphere but in a broader range of contexts were not correctly conveyed by the MT system and thus incorrect renditions of such elements have been found within the PE group just as frequently as within the FS group. In this respect, the findings reveal that MT is not particularly useful in retrieving the right phraseology for trainee translators, unless particularly nonsensical rendition of the texts alert the students that a change is required and thus prompt them to do more research. A possible solution might involve

the use of specific translation memories to be integrated in the MT system, even though this clearly would not encourage students to perform terminological and phraseological research. In order for students to correctly translate such phraseological constructs featuring common words employed in the common language and well beyond the legal sphere, a higher level of familiarity with both Italian and English legal phrases is suggested, as this will enable legal translation students to recognize said phraseological constructs and approach them as such, instead of opting for the MT literal rendition of the phrase or for a word-for-word translation.

Furthermore, it could be argued that the students belonging to the FS group possibly displayed a greater attempt to comprehend the meaning of the source text, due to the increased variety in the renditions provided by the FS group, which might entail a greater elaboration of the source text, albeit with poor results. The results of the TQA display the same tendency, which might be an indicator that the use of MT possibly prevented PE students from displaying their actual translation skills as they were influenced by the MT output and its translation choices more often than not. Conversely, from-scratch translation allowed the gaps between the students to come to light, as regards both their legal knowledge and their translation skills.

To conclude, it has been demonstrated that trainee translators possessing basic familiarity with MT tools and little to no experience in legal translation produce higher-quality end products when translating through Post Editing. However, these results are not to be fully attributed to their sole translation skills and an improved understanding of the text owing to the translation procedure adopted, but rather to their tendency to adhere to the MT output regardless of their understanding of the text being translated. Therefore, Post Editing represents the adequate choice for trainee translators if they seek to obtain a higher-quality end product; however, from-scratch translation might constitute a more appropriate solution when the objective is to prompt the students to do research and investigate the source text and its meaning.

In short, rather than to increase the frequency in the adoption of MT during the students' training, a more functional approach appears to involve assisting the students in

obtaining a greater degree of familiarity with legal notions and concepts, especially as regards legal terminology and phraseology, which seem to be two of the most problematic aspects. Through this approach, the use of MT and its integration into trainee translators' learning program will be more functional, as students will be able to enjoy the benefits of this resource, i.e. the time saving component and the correct rendition of a portion of the terminology employed within the source text, without being misled or excessively influenced due to their lack of knowledge in the legal field.

Indeed, the present research features limitations, the most relevant ones being the same that apply to The LeMaTTT Project (Quinci, forthcoming), namely the time and resource constraints. A larger sample including trainee translators with a greater degree of experience in legal translation indeed might have made possible to corroborate the conclusions reached in said dissertation or, conversely, to contradict them. Furthermore, another aspect which might have been interesting to analyze is the influence of each translator's own personal tendencies and the way they impact the final end product, which has been completely ignored within the present study. Therefore, such variables might indeed be worth investigating in future studies.

A possible way to corroborate said findings in future studies might involve the administration of a post-task questionnaire concerning the students' degree of understanding of the source text; the questions may revolve around the meaning and the purpose of the legal document being translated and the nature of its content, possibly adding a section featuring multiple-choice questions related to the content of the text with only one correct answer. Furthermore, another possible area of interest for future studies may include the comparison of said data with the translations performed in an actual translation exam, which would enable to evaluate to what extent the final translation quality changes when an official evaluation is taking place. Were it to improve significantly, the underlying problem might be of global nature, as that would hypothetically entail that students place greater importance on the grading component and thus do not devote enough effort and attention to their training process. In that case, this would have clear consequences as the importance of training and completing assignments with greater attention should therefore be promoted and emphasized.

# Appendices

*Appendix 1: The source text selected for the present study*

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS that the undersigned director ARRIS Group, inc., a Delaware Corporation (the "Corporation"), which is about to file an annual report pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934, as amended, on Form 10-K, hereby constitutes and appoints Robert Stanzione, Lawrence Margolis and David Potts and each of them his or her true and lawful attorney-in-fact and agent, with full power and all capacities, to sign the Corporation's 10-K and any and all amendments thereto, and any other documents in connection therewith, to be filed with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as she or he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or their substitutes may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has hereunto set his other hand and seal as of the 13th day of February 2007.

*Appendix 2: The MT pre-translated text*

## PROCURA

CONOSCERE TUTTI GLI UOMINI DAI PRESENTI che il sottoscritto direttore ARRIS Group, inc, a Delaware Corporation (la "Corporation"), che sta per depositare una relazione annuale ai sensi della Sezione 13 o 15 (d) del Securities Exchange Act del 1934, e successive modifiche, sul modulo 10-K, con la presente costituisce e nomina Robert Stanzione, Lawrence Margolis e David Potts e ciascuno di essi suo vero e legittimo procuratore-in-fatto e agente, con pieni poteri e tutte le capacità, per firmare il 10-K della

Corporation e ogni e qualsiasi modifica ad esso, e qualsiasi altro documento in relazione ad esso, da depositare presso la Securities and Exchange Commission, conferendo a detti procuratori effettivi e agenti pieni poteri e autorità per fare ed eseguire ogni atto e cosa richiesta e necessaria da fare in e riguardo alle premesse, in modo altrettanto completo, a tutti gli effetti, che lei o lui potrebbe fare di persona, ratificando e confermando tutto ciò che detti procuratori effettivi e agenti o i loro sostituti possono legittimamente fare o far fare in virtù del presente documento.

IN FEDE DI CHE, il sottoscritto ha apposto la propria mano e il proprio sigillo il 13 febbraio 2007.

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# Riassunto

L'obiettivo della presente ricerca è quello di determinare se e in quale misura gli errori di traduzione commessi dagli studenti siano influenzati dalla presenza di un testo pre-tradotto e quale procedura possa portare ad una traduzione di qualità migliore, attraverso una revisione basata sul rilevamento di errori di due gruppi di traduzioni, un gruppo di traduzioni fatte a partire da zero e un altro di traduzioni eseguite in post-editing e, successivamente, una valutazione complessiva della qualità dei dati ('*Translation quality assessment*'). Lo scopo dello studio è anche quello di evidenziare eventuali correlazioni tra traduzioni eseguite tramite post-editing o da zero e specifiche categorie di errori, desumibili dal prodotto finale.

Considerando che il campione di studenti partecipanti allo studio empirico ha dichiarato di avere poca o nessuna esperienza nella traduzione giuridica e una conoscenza molto limitata del settore legale, ci si aspetta che la presenza di un testo pre-tradotto fornisca un aiuto significativo e che quindi permetta l'ottenimento di una traduzione finale di qualità superiore. Tuttavia, è discutibile se tale risultato possa essere ricondotto a un miglioramento della comprensione del significato del testo di partenza da parte degli studenti, eventualmente dovuto al maggior tempo a disposizione per effettuare ricerche terminologiche e fraseologiche, o piuttosto all'accettazione passiva da parte degli studenti delle scelte traduttive fornite dal sistema di traduzione automatica senza un'effettiva comprensione del documento da tradurre.

Il primo capitolo della suddetta tesi è dedicato alla presentazione delle caratteristiche principali del linguaggio giuridico e delle nozioni di base sulla traduzione automatica, con particolare attenzione alla sua influenza sulla formazione degli studenti. La traduzione giuridica è generalmente nota come un'attività complessa e difficile, a causa della complessità generale del diritto e del linguaggio altamente specializzato utilizzato in ambito giuridico. Per quanto riguarda i vocaboli comunemente utilizzati in questo ambito, alcune delle caratteristiche più rappresentative sono l'uso di parole comuni con significati non comuni, parole e frasi che derivano dal latino e dal francese, la

presenza di gergo settoriale, parole formali e parole con significati flessibili (Mellinkoff, 1963). In termini di sintassi, si possono evidenziare diversi tratti, come la presenza di subordinate multiple l'una dentro l'altra, le costruzioni passive, la nominalizzazione, le negazioni multiple, le frasi preposizionali arcaiche e la presenza di due o tre termini sinonimici elencati uno dopo l'altro (Crandall e Charrow, 1990).

Sebbene gli aspetti linguistici, culturali e interdisciplinari del linguaggio giuridico rappresentino certamente un problema per i traduttori alle prime armi, la difficoltà maggiore è considerata l'asimmetria tra i diversi sistemi giuridici e le tipologie testuali (Šarčević, 1997). Le due famiglie giuridiche più influenti sono la *Common Law* e la *Civil Law* (Cao, 2007), che differiscono notevolmente in termini di sviluppo storico, modalità di pensiero giuridico, istituzioni giuridiche, fonti del diritto e ideologie, come illustrato da Tetley (2000).

La traduzione giuridica è stata influenzata dai progressi tecnologici che hanno cambiato radicalmente il processo di traduzione. Dopo i cosiddetti *CAT tools*, la traduzione automatica, cioè la traduzione completamente automatizzata senza alcun coinvolgimento umano (Napier, 2000), ha segnato una svolta importante. La pratica del *Post-Editing* (PE) è diventata necessaria, cioè la revisione di una traduzione generata dalla MT da parte di un linguista o di un traduttore per garantirne la correttezza e la comprensibilità (Allen, 2003: 297). Il PE comporta spesso numerosi vantaggi rispetto alla traduzione fatta da zero, come il risparmio di tempo e sforzi cognitivi e l'ottenimento di un prodotto finale di qualità comparabile o addirittura superiore (Carl et al, 2019). Sebbene un numero considerevole di studenti utilizzi ampiamente gli strumenti di traduzione assistita per svolgere compiti di traduzione, molti di loro non si fidano completamente dell'accuratezza del risultato finale della traduzione assistita (Briggs, 2018). Per massimizzare i vantaggi di questa procedura, gli studenti devono prendere coscienza del proprio processo di traduzione e acquisire la capacità di valutare il proprio lavoro (Koponen, 2015). Inoltre, l'esperienza nell'uso della traduzione automatica e la consapevolezza dei suoi limiti sono componenti fondamentali (Yang e Wang, 2019).

Quando si traduce testi giuridici attraverso un sistema di traduzione automatica, la qualità complessiva della traduzione è considerata insufficiente, poiché è stato riscontrato che è impossibile tradurre testi giuridici attraverso la traduzione automatica senza un grande sforzo nella fase di post-editing. Gli studenti dovrebbero innanzitutto essere consapevoli degli attuali limiti della traduzione automatica, poiché assegnare compiti di post-editing di testi giuridici tradotti da sistemi di traduzione automatica non sembra portare risultati soddisfacenti (Wiesmann, 2019).

Il secondo capitolo della suddetta tesi è dedicato alla revisione e ai parametri e criteri applicabili, nonché alle categorie in cui possono essere classificati gli errori di traduzione. Inoltre, viene esplorato il concetto di "valutazione della qualità della traduzione" ('*Translation Quality Assessment*, TQA) attraverso una rassegna delle nozioni più rilevanti in materia e dei principali modelli di TQA. La revisione è un compito assegnato a traduttori professionisti che consiste nell'apportare o suggerire correzioni o miglioramenti necessari in base a un determinato criterio di qualità prefissato (Mossop, 2020). Durante il processo di revisione, il revisore controlla i parametri di revisione per individuare potenziali errori. I parametri di revisione presentati da Mossop (2020) consistono in quattordici parametri suddivisi in cinque gruppi, denominati "trasferimento" (errori di accuratezza e completezza), "contenuto" (errori di logica e di fatti), "lingua" (errori di scorrevolezza, registro, uso specifico della lingua, linguaggio idiomatico e meccanica), "presentazione" (errori di impaginazione, tipografia e organizzazione) e "specifiche" (errori di ClientsSpecs e EmployerPol).

La comparsa delle tecnologie di traduzione ha portato alla creazione di modelli e strumenti per la valutazione della qualità della traduzione. I due modelli più rilevanti sono il Dynamic Quality Framework (DQF), che prevede diversi approcci al compito di valutazione, e il Multidimensional Quality Metrics (MQM), che ha proseguito il lavoro precedentemente sviluppato dal modello 'LISA'. Entrambi i modelli offrono quattro livelli di gravità dell'errore e una procedura di assegnazione di un punteggio finale predefinita (Lommel, 2018).

Il terzo capitolo della suddetta tesi è dedicato alla metodologia adottata in tale indagine empirica, illustrando le domande di ricerca e i principali obiettivi dello studio, le principali caratteristiche del testo di partenza, il campione di partecipanti, il processo di somministrazione del compito insieme alle procedure di traduzione adottate, ovvero la traduzione in PE e la traduzione from-scratch (FS) e infine la metodologia specifica adottata per la procedura di revisione e di *Translation Quality Assessment (TQA)*.

La suddetta tesi fa parte di un progetto di ricerca più ampio, il "Progetto LeMaTTT" (Quinci, prossima pubblicazione), che si propone di indagare l'influenza dei testi giuridici pretradotti da sistemi di traduzione automatica sui pattern di ricerca dei traduttori in formazione e sulla qualità delle loro traduzioni attraverso un'analisi orientata sia al prodotto che al processo. L'obiettivo finale è quello di valutare in che misura il reperimento della terminologia e della fraseologia corretta da parte degli studenti sia influenzato dagli strumenti di traduzione automatica e, di conseguenza, se e in che misura tali risorse possano essere integrate nella loro formazione.

Il testo di partenza selezionato per il presente studio empirico è un *Power of Attorey,* un tipo di testo giuridico inglese il cui scopo è autorizzare un avvocato o un procuratore ad agire per conto della persona che la conferisce (Varó e Hughes, 2014). Tra le sue principali caratteristiche testuali, è necessario menzionare le stringhe di parole, la struttura complessa della frase e le forme passive (Cao, 2007). In Italia, il documento corrispondente è chiamato "procura", la transazione con cui una persona conferisce a un'altra il potere di rappresentanza (Torrente, Schlesinger, 2019: 564). Esistono due diversi tipi di "procura": la "procura generale", che conferisce il potere di eseguire indistintamente tutti i rapporti e le operazioni del mandante, e la "procura speciale", che si limita a uno o più compiti specifici (Roppo, 2016: 390).

Il campione di partecipanti è costituito da 107 studenti iscritti al corso di laurea in "Lingue moderne per la comunicazione e la cooperazione internazionale" dell'Università di Padova e frequentanti il corso di "Traduzione specialistica inglese 2". La partecipazione non era obbligatoria e agli studenti è stato concesso un periodo di due settimane per completare il compito di traduzione dopo la somministrazione di una breve

traduzione di prova per abituarsi alla procedura. La traduzione doveva essere eseguita attraverso un software denominato Matecat: metà degli studenti hanno tradotto da zero, mentre l'altra metà ha apportato modifiche al testo tradotto automaticamente. Prima e dopo la traduzione, agli studenti è stato chiesto di compilare due questionari. Il questionario post-task era incentrato sul prodotto finale e aveva lo scopo di raccogliere le opinioni e i pensieri degli studenti sul compito di traduzione appena svolto.

Le revisioni sono state effettuate tramite un software chiamato "Markin4", che consente di etichettare gli errori di traduzione in diverse categorie, ovvero i parametri di Mossop. Successivamente, gli errori di traduzione sono stati riportati su un foglio di calcolo Excel. La procedura di TQA prevede poi l'assegnazione di tre diversi livelli di gravità, ovvero minore, maggiore e critico, e una procedura per assegnare un punteggio che tiene conto della presenza di '*kudos*', ovvero di elementi della traduzione valutati come particolarmente buoni o idiomatici dal revisore (Lommel, 2018).

Infine, il quarto capitolo della presente tesi è dedicato alla presentazione e alla discussione dei risultati sia dal punto di vista quantitativo che qualitativo, compresa una valutazione globale della qualità delle traduzioni oggetto di studio e la discussione delle risposte emerse nel questionario post-task. L'analisi quantitativa dei dati ha evidenziato che il numero medio di errori di traduzione per studente è stato significativamente più alto all'interno del gruppo FS, vale a dire che la traduzione attraverso il post-editing ha permesso agli studenti di commettere una quantità inferiore di errori di traduzione. I livelli di gravità degli errori erano equamente distribuiti tra i due gruppi: gli errori minori sono risultati i più comuni e gli errori critici i meno comuni. In termini di categorie di errori, la fraseologia, l'accuratezza e la terminologia appaiono le aree più problematiche, indipendentemente dalla procedura di traduzione adottata dai partecipanti. Al contrario, la scorrevolezza, il registro e gli errori fattuali non hanno rappresentato un problema, probabilmente a causa delle caratteristiche intrinseche del linguaggio giuridico.

Nell'analisi qualitativa dei dati, si è osservata una chiara tendenza: le scelte traduttive fornite dagli studenti appartenenti al gruppo PE appaiono abbastanza simili, mentre gli errori di traduzione registrati all'interno del gruppo FS si differenziano

maggiormente tra loro, il che comporta una maggiore elaborazione del testo di partenza e un maggiore sforzo nel tentativo di fornire una possibile interpretazione dello stesso. Inoltre, gli studenti possono essere più inclini a non correggere un errore quando osservano una resa del testo di partenza valutata da loro come comprensibile, rispetto alla resa per cui opterebbero quando traducono da zero.

Per quanto riguarda il TQA, il gruppo PE ha ottenuto risultati significativamente migliori, considerando poi che la valutazione media del gruppo FS non è nemmeno sufficiente. È possibile ipotizzare che l'uso della traduzione automatica abbia impedito agli studenti del gruppo di PE di mostrare le loro effettive capacità traduttive, in quanto influenzati dall'output della traduzione automatica, mentre la traduzione *from-scratch* ha permesso di far emergere le differenze tra gli studenti, sia per quanto riguarda le loro conoscenze giuridiche che le loro capacità traduttive.

In conclusione, è stato dimostrato che gli studenti di traduzione che possiedono una conoscenza di livello base degli strumenti di traduzione automatica e poca o nessuna esperienza pregressa nel campo della traduzione giuridica producono prodotti finali di qualità superiore quando traducono in Post Editing; tuttavia, tali risultati non sono da attribuire completamente alle loro capacità traduttive e a una migliore comprensione del testo ottenuta grazie alla procedura di traduzione adottata, ma piuttosto alla loro tendenza a confermare l'output della traduzione automatica, indipendentemente dalla loro comprensione del testo di partenza. Pertanto, il Post Editing rappresenta la scelta adeguata per i traduttori in formazione se si vuole ottenere un prodotto finale di qualità superiore; tuttavia, la traduzione da zero costituisce una soluzione più appropriata quando l'obiettivo è quello di spingere gli studenti a fare ricerche e a cercare di comprendere a fondo il testo di partenza e il suo significato, consentendo loro di fornire una propria interpretazione del testo.

Una soluzione funzionale al problema legato all'alto tasso di errori sembra quindi essere quella di aiutare gli studenti ad acquisire una maggiore conoscenza delle nozioni e i concetti giuridici, soprattutto per quanto riguarda la terminologia e la fraseologia, che sembrano essere due degli aspetti più problematici. Grazie a questo approccio, l'uso della

traduzione automatica e la sua integrazione nel processo di apprendimento degli studenti di traduzione saranno più funzionali, in quanto gli studenti potranno godere dei vantaggi di questa risorsa, ovvero un considerevole risparmio di tempo e la corretta resa di una parte della terminologia impiegata all'interno del testo di partenza, senza però essere eccessivamente influenzati dal testo pre-tradotto a causa della loro mancanza di conoscenze in campo giuridico.

I principali limiti della presente ricerca includono i vincoli di tempo e di risorse, poiché la revisione di un numero elevato di traduzioni e la categorizzazione degli errori di traduzione rilevati rappresenta un'attività che richiede molto tempo e che ha impedito di analizzare a fondo l'intero campione. Un campione più ampio, comprendente studenti di traduzione con un maggior grado di esperienza nella traduzione giuridica, potrebbe fornire conclusioni preziose in studi futuri, così come un'analisi delle tendenze personali di ciascun traduttore e del loro impatto sul prodotto finale, un altro aspetto che purtroppo è stato completamente tralasciato dalla presente ricerca.