Translation in Singapore : who does it better?

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**NANYANG TECHNOLOGICAL UNIVERSITY
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

TRANSLATION IN SINGAPORE: WHO DOES IT BETTER?

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Glossary of Abbreviations

C-E translation	Chinese-English translation
E-C translation	English-Chinese translation
L1	First language
L2	Second language
ST	Source text
TT	Target text
MQM	Multidimensional Quality Metrics
NTU	Nanyang Technological University
UniSIM	SIM University
GDTI	Graduate Diploma in Translation and Interpretation
BATI	Bachelor of Arts in Translation and Interpretation
STB	Singapore Tourism Board
ISO	International Organization for Standardization
ATA	American Translators Association

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Abstract

The quality of translation in Singapore has often come under the spotlight. However, there has been very few or almost no research on translation quality in Singapore that examines the relation between translation quality and the qualification and bilingual profile of Singapore translators. Besides that, the status of translator in Singapore is constantly challenged, and thus, Singapore translators are calling for more efforts to improve their working conditions. Hence, this study has two main purposes. Firstly, it aims to present an overview of the quality of English-Chinese and Chinese-English translations in Singapore by comparing 1) translations produced by translators with and without translator education, and 2) translations produced by English-dominant, Chinese-dominant and the “more balanced bilingual” translators. Secondly, it explores the possibility of setting up a translators’ association/authority that offers accreditation services. A total of 24 Singapore translators took part in this study. They answered two sets of questionnaires and produced one English-Chinese translation and one Chinese-English translation. Their translations were marked using an error-analysis method called the Multidimensional Quality Metrics (MQM) model by two industry experts. It was found that participants were able to produce high-quality English-Chinese translation and Chinese-English translation even without education in translation. Participants who are more equally proficient in two languages were also found to be more competent in producing high quality translations in both directions as compared to those who are more proficient in either the source language or the target language. Overall, the quality of Chinese-English translation was higher than the quality of their English-Chinese translation. Participants also showed strong support for the establishment of a translators’ association/authority in Singapore. It is hoped that the findings of this study could provide insights into the translation quality in Singapore, gave an impetus to professionalising the industry and inspire researchers, industry players and relevant authority to conduct further research on professional development of translators.

1. INTRODUCTION

1.1 Background

Translation plays an important part in the multiracial and multilingual Singapore. When Singapore became independent more than forty years ago, the Constitution proclaimed English and the mother tongues of the three main ethnic groups, i.e. Malay, Mandarin, and Tamil, the four official languages of the country¹. Officially, it is therefore necessary to have all governmental communications transmitted to the nation in these four languages to reflect equal treatment of races and languages. Commercially, having information distributed in more than one of these languages allows companies to reach out to a greater audience in the population and enhance their brand image.

Today, 73.2% of Singapore residents are literate in at least two of the official languages as a result of the bilingual education policy, according to the *General Household Survey 2015* (Department of Statistics, 2016). The survey also shows that the use of English is rising and has taken over Mandarin to become the language spoken most often at home. In a multilingual society, it is unsurprising that most of these bilinguals have had some experience in translation and interpretation in one way or another in their daily lives – from helping to interpret government policies into mother tongues or dialects to the elderly to being tasked to translate passages for work purposes.

Singapore has seen an exponential growth in the translation and interpreting market. It was estimated that the local demand for translation and interpretation services would reach US\$11.93 million in 2014, accounting for 0.37% of the global market (Parker, 2008). The government believes that with its “multi-lingual capabilities, cross-cultural understanding and well-developed information structure”, Singapore can become a leading hub for quality translation and interpretation services, serving not only the local needs, but also the region’s demand (Chen, 2005). In this regard, the government has put in enormous efforts to enhance the translation capabilities of the nation and raise the overall translation standards in the country, including setting up the National Translation Committee in 2014 and introducing translation as an H2 subject in junior colleges in 2015.

¹ According to the Constitution of the Republic of Singapore, Article 153A(1), “ Malay, Mandarin, Tamil and English shall be the 4 official languages in Singapore”.

Nevertheless, despite recent efforts by the government to boost the Singapore translation industry, some long-existing problems in the industry still remain unresolved. In addition, there are also new emerging problems that Singapore translators are struggling to cope with in this globalised world. These challenges will be discussed further in the next section, with a focus on translations involving the language pair of Chinese and English.

1.2 Problems faced by translators in Singapore

The translation industry in Singapore is of a considerable size. The number of firms that have registered their principal business activity under classification “SSIC 74901 – Translation Services” of the Singapore Standard Industrial Classification has increased from 91 in 2010 to 150 in 2015, and their revenue has grown steadily from S\$28.0 million in 2010 to S\$30.6 million in 2015² (Manpower Research and Statistics Department, personal communication, January 25, 2017)³. It was reported that there were about 1,050 full-time and freelance translators and interpreters in Singapore in 2005 (Chen, 2005). Unfortunately, no recent figures and breakdown of full-time and freelance translators and interpreters are available (National Translation Committee, personal communication, January 17, 2017).

It is clear that while translation firms are regularised as companies and the industry growth is monitored based on total operating receipts, the development and status of Singapore translators including their welfare and performance, are rarely measured and researched. The lack of statistics and research in this area has hindered any possible measures to help Singapore translators grow and stay competitive in the globalised world. Some common complaints of problems faced by Singapore translators today and the concerns they have are observed as follows.

1.2.1 Lack of national authority or association for translators and interpreters

Singapore does not have any authority or association for translators and interpreters that offers accreditation services and manages a list of certified translators and interpreters. As at today, the only formal group for translators and interpreters in Singapore is the Singapore

² As at the date of receipt of the statistics on 25 January 2016, the data for year 2015 is preliminary in nature. The revenue is calculated based on operating receipts.

³ I would like to thank the Manpower Research and Statistics Department, Ministry of Manpower for obtaining and consolidating the relevant statistics from the annual survey of services, 2010-2015 (conducted by Singapore Department of Statistics) for me for the purpose of this study.

Interpreters' and Translators' Union, a union that is only for translators and interpreters in the public service. For those in the private sector, there is no similar group to look after their interests, and needless to say to provide regulation, training and standardisation for the greater good of the industry.

The lack of a national translators' association has made the number and career development of full-time and freelance translators in Singapore unmeasurable. It also leaves the professional status of translators unprotected. In addition, without any professional code of conduct by the association, translators are not governed by any ethical standards and quality expectations, and therefore have too much flexibility in their translation approaches and charges. As for clients who need the services of translators, they may have difficulties looking for qualified translators, or may not have means to verify the translators' qualification if translators are not registered. Hence, the idea of establishing an association or authority for Singapore translators is worth considering.

1.2.2 Low entry barriers to translation industry

Professionally, there are low or almost no barriers for individuals to enter the Singapore translation industry. Translation degrees or professional translator certification are not a prerequisite for anyone wishing to provide translation services in Singapore. Because of the language abilities of its people, it is not uncommon for many people in Singapore to think that any person who knows two languages, including themselves, can be a translator. And that is usually how most translators in Singapore start out. Those with an excellent foundation in both languages may have a flair for translation, but others will soon realise translation is not as easy as they had thought.

The low barriers to becoming a translator in Singapore mean that there are many self-proclaimed translators offering translation services of contrastive quality, thereby creating competition for competent translators. But more importantly, this situation further demonstrates that translation is not (yet) a profession in Singapore.

1.2.3 Lack of translation quality control in the market

Translation quality in Singapore has come under the spotlight on numerous occasions, and the poor translations are mostly English-Chinese translations. UniSIM Provost Professor Tsui Kai Chong expressed his concern about the differing standards between Chinese-English

translation and English-Chinese translation in Singapore. “The standard of translation and interpretation from English to Chinese is deteriorating and this is worrying”, said Professor Tsui (Ho, 2007).

What is interesting in Singapore is that while most of its population are bilingual and capable of checking a piece of translation, most clients tend to overtrust that the translators would do a good job. One of the infamous instances in the early 2000s is the serious mistranslations found in the Chinese translation of tourism materials commissioned by Singapore Tourism Board (STB). STB, a public institution, was bombarded for failing to spot the errors despite having many bilingual officers who should have been capable of doing so. However, clients in Singapore did not learn their lesson. More than a decade later, absurd Chinese mistranslations were still spotted in advertisements and posters around the island in 2016⁴. The translators who created the poor translations were not named but the relevant publishers were heavily criticised by the media and public. This goes to show that Singapore clients still lack the awareness of the importance of using qualified translators to produce quality translations. Without any quality control in place, incompetent translators will continue to work in the industry and produce poor-quality translations that embarrass not only the publishers, but also Singapore, who takes pride in its bilingual policy.

1.2.4 Technological impact on local translators

Translation can be done in just a few clicks and at almost no cost in this technological world. Therefore, translators now have to convince their clients that they are more competent in producing quality translations than the free translation tools found online in order to justify the fees they charge and the time they take.

In addition, the Internet has also brought more competition from overseas translators. Taking the English-Chinese language pair as an example, the biggest translation competitor is translators from China. They are highly competent in Chinese and their translation fees are low. Clients with limited budget are thus inclined to outsource their projects to them. As

⁴ Some of the mistranslations found in advertisements and posters in 2016 include “Falls Awareness Campaign (推广跌倒意识运动)” by the Health Promotion Board, “8km run (八公里云行)” and “running team (运行团队)” by Punggol Central Community Sports Club, and “Christmas celebration party (圣诞节庆祝党)” by Queenstown Sterling View Zone Residents’ Committee.

compared to Singapore, the Chinese government has taken more rigorous measures to develop their translation industry such as establishing a translator accreditation test system, setting out translation guidelines and introducing more translation programmes at undergraduate and postgraduate levels. Therefore, competition from Chinese translators must not be underestimated.

While Singapore does not have a national translation association/authority or any minimum entry barriers for translators, a few translation programmes have been launched as measures to boost the industry, and to provide knowledge and skill upgrading for translators. In the next sub-section, we will take a look at translator education in Singapore and how it is received in Singapore.

1.3 Translator education in Singapore

One of the first translation courses at a university level offered in Singapore can be traced back to the 1960s when the Department of Chinese at the National University of Singapore began offering English-Chinese translation as an elective in their 3-year degree programme in Chinese and as a specialisation option in the 4-year Honours degree (Hung, 1996: 34). A decade later, SIM University (UniSIM) launched the first and only undergraduate programme in Chinese translation and interpretation in Singapore. The first master's programme in translation and interpretation was launched by Nanyang Technological University (NTU) in 2016, a few years after NTU discontinued its Graduate Diploma in Translation and Interpretation (GDTI) to offer a higher degree. Other than these two degree programmes offered by universities, diploma programmes in translation are offered by Singapore Chinese Chamber Institute of Business and the Confucius Institute of NTU.

The introduction of structured academic programmes in translation at a university level to a society that is so used to having translation in their daily lives has, as one may expect, brought about two distinct reactions. While one group welcomes more training to help local translators to upgrade their skills and aspiring translators to acquire necessary skills and understand the best practices of the industry, another group was sceptical about the role and usefulness of such programmes. Those who are not in favour of translator education believe that experience is more important and see university's translator programmes as an accessory more than a necessity. As mentioned in the previous section, being bilingual entails the

ability to translate. Therefore, many of them do not see the need to take up courses in translation as long as they are competent in the two languages.

The number of translation graduates in Singapore is unknown due to aforementioned reasons. However, based on observation, the number should not be huge. It is regrettable that there has been no follow-up on the professional career of this small group of translators to find out how they have been doing in the industry or even how many of them do continue to work in the industry. Nevertheless, in general, translation graduates are expected to have obtained the necessary skills and knowledge to translate competently, and are therefore expected to excel in their work and be more capable of producing translation of a higher quality than translators without translator education. However, more empirical data will be required to support any further statements on this point.

1.4 Purpose of this study

The sections above have highlighted three areas concerning Singapore translators that are worthy of further examination: the role of translator education, the language ability of translators, and the professional status of translators. Therefore, this study investigates the following:

- (1) Do Singapore translators with education in translation produce higher-quality translation than those without?
- (2) Does the bilingual profile of Singapore translators affect their ability to translate from English to Chinese and vice versa?
- (3) How do Singapore translators perceive professionalisation of the industry?

I must state that the study is experimental in nature. No known academic study or market research of any scale on translation quality has ever been conducted in Singapore. By analysing the quality of translations by translators with and without education, it is hoped that the study could shed light on the current level of quality of English to Chinese and Chinese to English translations in Singapore. In addition, it intends to draw attention to the issue of possible professionalisation of the industry.

2. LITERATURE REVIEW

Over the years, numerous studies have been carried out to examine the dispositions of translators and the quality of their translations. This chapter, consisting of three main sections, first reviews the role of translator education in developing translation competence and professionalising the industry. It is then followed by a review of the performance of translators translating from L1 to L2 and from L2 to L1 in the second section. The notion of translation quality and a brief analysis of the translation quality assessment models in the market will be discussed in the third section.

2.1 Translator education

Earlier researchers linked the ability to transfer message from one language to another with bilingualism. Presas (2000: 20) suggests that bilingualism is a psycholinguistic foundation upon which translation competence is developed. In general, translation is said to be the “fifth skill” of the bilinguals, in addition to the other four skills in language acquisition namely speaking, reading, listening, and writing (Newmark, 1991: 62). Nevertheless, as pointed out by many other researchers, a high level of bilingual competence is only one of the many requisites for translation competence (Kussmaul, 1995; Toury, 1995; Presas, 2000). Quoting Toury (1995: 245), “the identification of translating as a skill with mere bilingualism seems an unwarranted oversimplification”.

According to Whyatt (2012: 114), multilingual societies usually see a high level of tolerance for linguistic inadequacies and transfer errors in translations produced by untrained bilinguals for daily informal purposes. Translating in official context that requires “a high level of formality, flawless unambiguous translation”, on the other hand, is beyond the capability of untrained translators (Whyatt, 2012: 114). In other words, bilinguals may have been gifted with the talent that enables them to convert text between languages effectively, but such talent does not make them accomplished translators automatically (Sofer, 2013: 17). At the outset, bilinguals are “natural translators” who can translate but are limited by their mastery of the two languages (Harris & Sherwood, 1978: 155). The translations produced by these “natural translators” are natural translations, which can be defined as “the translating done in everyday circumstances by people who have had *no special training* for it” (Harris & Sherwood, 1978: 155). In other words, natural translators will remain natural translators if they do not take steps to enhance their natural capacity explicitly through training

programmes or by other means (Whyatt, 2012: 151). But the question is, what should this so-called “special training” be? And how do bilinguals who have had special training in translation perform differently from bilinguals without any training?

Training in the broadest sense refers to a process in which one acquires the skills, knowledge and experience that he needs to do a particular job or activity (“Training,” 2013). Healey (1978: 58) suggests that “a modicum of training” is needed to help a translator who has already had some inborn qualities to reach full stature. As history has shown, translators take different routes in developing their skills to translate (Whyatt, 2012: 185). Indeed, training in translation can take many forms, from formal to informal, academic to on-the-job. Bernardini (2004) draws a distinction between translator training and translator education. According to her, the hard skills required of a translator to produce translation including linguistic skills are learned cumulatively through translator training, a process that combines instruction and practice. Conversely, translator education is a generative process in which translators learn to apply available knowledge to new translation situations and gain new knowledge as and when the need arises. To her, translator education is more important than translator training and should take place first because translator education builds “the ability to use finite resources indefinitely” in translators (Bernardini, 2004: 20).

Other scholars also support the importance of learning in an academic setting. Kamyab (2015: 110) suggests that translators need academic and institutionalised training to achieve the required competence to produce quality translations. It is also a firm conviction of Schäffner & Adab (2000: x) that translation competence is developed most effectively in an academic institution. Gile (2009: 7) also states that translation skills are developed faster through formal training than through field experience or self-learning by trial-and-error. And as compared to vocational training centres, universities are arguably the best place to groom future translators (Kearns, 2008; Baker, 2011). On the other hand, teaching translation at an institution of higher learning is often faced with the lack of support from people inside and outside the profession (Chau, 1995: 191). This is mainly because they are not convinced of the usefulness of translator education and its legitimacy as a university discipline (Cordero, 1994: 171). Their arguments for and against university-level translation programmes are further reviewed in the next few sections.

2.1.1 *Voices against translator education*

In spite of the long-established practice of translating, translation study only developed into an academic discipline in the second half of the 20th century, and the number of university translation programmes rose sharply in the late 1980s and early 1990s. (Pym, 2009; Munday, 2012). The development of translation as an academic discipline did not only happen in the West. Over the past few decades, translator education has also marched its way into universities in Asia. This shows that increasingly, people have begun to realise and appreciate the value of translator education (Chau, 1995: 194).

However, there are many competent translators who have had no training as translators but still succeeded as professionals. Translator education is therefore seen by these practitioners who have not gone through the system themselves to be unnecessary, inefficient, too theoretical, and unable to produce translators that meet the emerging market needs (Chesterman & Wagner, 2002; Bowker, 2004; Pym, 2009). It is also a common assumption that only “those with a languages-and-literature background” will see university programmes in translation necessary (Gouadec, 2007: 253). Some even claim that the qualities of translators are “untrainable” and that “translating is an art whose proficiency cannot be profitably formalized” (Chau, 1995: 192).

Another reason translation programmes are less attractive to practitioners who have been working in the industry is the amount of time commitment required of them. A full-time undergraduate programme generally takes three to four years and master programme one to two years. It is not easy to ask them to set aside that amount of time to study when they can be gaining more hands-on experience in the industry and earning money for the same period (Pym, Grin, Sfreddo, & Chan, 2014: 14). And as university programmes are generally designed for ordinary students, existing practitioners complain that these programmes are not value-for-money. Some knowledge taught are not new to them as they have come across and resolved various translation situations by themselves in their professional experience. Thus, they find themselves not able to gain much after investing a substantial amount of time and money into pursuing a degree (Gile, 2009: 11).

Besides that, a degree in translation is not a must to work as a translator. Samuelsson-Brown (2004: 1) shares his observations as a freelance translator in his popular book *A Practical Guide for Translators* that, recruitment advertisements in the newspapers and professional

journals tend to look for translators with professional qualifications “and three years’ experience”. In addition, ISO 17100:2015, an international standard that provides requirements for the delivery of quality translation services, specifies that certified translation firms must work “exclusively” with professional translators who have: (1) a recognised graduate qualification in translation from an institution of higher education; or (2) a recognised graduate qualification in any other field from an institution of higher education plus two years of full-time professional experience in translating; or (3) five years of full-time professional experience in translating (International Organization for Standardization (ISO), 2015). It is obvious that it is an either-or situation in the job market – either you have a translation degree or you have translation experience.

However, the role of translator education should not be limited to the job prospect of translators. Scholars who support translator education highlight that translation programmes help anyone including the most gifted students to improve significantly and produce better quality translations (Haywood, Thompson, & Hervey, 2009: 1). In fact, a more important role that translator education plays is in improving the quality of translations and professionalising the industry, which are two items high on the agenda of the industry (Schäffner, 2012: 30). In the next two sections, the role that translator education plays in this regard will be examined.

2.1.2 The role of translator education in improving translation quality

As stated by Pym (2009), translator education “train[s] people not just to translate, which they can already do, but to translate *well*, perhaps for a specific purpose, market or technological environment”. There have been results showing that translation graduates perform better than non-graduate translators. In a literary translation test conducted on 50 professional translators with translation degree and 50 professional translators without translation degree (Varzande & Jadidi, 2015), it was found that translators with translation degree scored higher than those without. They made fewer errors and their translations were also more acceptable when viewed holistically (Varzande & Jadidi, 2015: 14). Varzande & Jadidi (2015: 15) suggests that translators with translation degree can produce translations of a higher quality because training in academic setting has taught them “theories and strategies” to deal with various translation tasks and problems.

On top of solid training in language on the levels of lexis, syntax and style, one thing that distinguishes informal learning by groping in the dark from learning in an academic institution is translation theories, as rightly pointed out by Varzande & Jadidi (2015: 15). One must not underestimate the importance of theoretical foundation that translation programmes help to build (Ingo, 1992; Gile, 2009; Munday 2012). As indicated by Neubert (1989: 11), “practice without theory is blind” and “theory without practice is empty”. Theoretical knowledge is indispensable as it expands the way of thinking of translators, enabling them to explore different methods of translating, question the acceptability of translation products, and provide good reasoning to defend their choice of solution to a translation problem when challenged (Ulrych, 2005; Hansen, 2008; Boase-Beier, 2010; Pym, 2010). Otherwise, translators will fall into what Fawcett (1981: 142) calls “the lordly, but completely unexplained, whimsy of ‘It doesn’t sound right’” situation when they attempt to assess the quality of translation for themselves and for others.

Translators who have theoretical background are more aware of the intricacies of the translation process and conscious of different aspects of the practice of translation (Agost & López, 2015: 365). When Hansen (2008) investigated the translation competence and revision competence of translation students, he found that theory-based systematic revision training offered in university-level translation programmes gives students the ability to explain, classify and justify the changes they wish to make to a translated text. Therefore, when they graduate, they know both the how and why – not only are they able to translate, they are also equipped with the ability to check and revise translations (Massardier-Kenney, 2016: 34). Such ability to revise that is backed by logical and empirically proven theories is highly sought after by the industry nowadays (Agost & López, 2015).

Translation programmes also teach translation history alongside theories. According to Mackenzie (2004: 33), translation history provides translators insights into their role for society. Knowing how the role of translators has evolved over the time and its significance will help translators to be more positive about their self-image as professionals, and will in time to come facilitate the process of professionalising the industry (Mackenzie, 2004: 33).

2.1.3 The role of translator education in professionalising the industry

The low translation quality produced by a large number of self-proclaimed translators without any form of training has lowered the status and worsened the working conditions of

professional translators (Gile, 2009: 5). They take advantage of the publication practice of not naming the translators and deliver poor-quality translations to their clients, especially those who are monolingual and do not have the ability to assess the quality of the translation (Whyatt, 2012: 36). Their irresponsible acts have affected not just the quality of the translations but also the reputation of the translation profession as a whole.

Baker (2011: 4) explains that for translation to be seen as a profession like medicine and engineering, translators must realise that translation is not an intuitive practice and that it cannot be based merely on experience. Therefore, a healthy academic discipline which offers both theoretical and practical learning is hoped to raise the bar for the industry. Universities are seen as a gatekeeper in this regard. According to Gile (2009: 7), the very first step taken by any university offering translation programme is to have in place a set of criteria to admit the better candidates who at least have the aptitude for translation. And at the end of the programme, only those who have acquired translation competence will be granted graduation (Gile, 2009: 7). With more qualified translators entering the market, the translation quality standard and the status of translators are expected to be raised, and the public perception of translation not being a profession will therefore be changed (Tosun & Kabukcik, 2012: 302).

To sum up, this section has demonstrated the role that translator education plays in elevating the standard of translation and professionalising the industry. In the next section, we will look at how one's translation ability to translate from one language into another and vice versa is also affected by his bilingual profile.

2.2 Directionality in translation

According to Pavlović (2007: 80), directionality refers to whether a translation is done into one's first language or from it into his second language. The term "first language" or "L1" is also known as "language A", "mother tongue", "native language" or "language of habitual use" while the term "second language" or L2 is also called "language B", "non-mother tongue", "non-native language" or "foreign language" (Pavlović, 2007; Pavlović, 2013). Of all these terms, Pavlović (2013: 150) believes that using L1 and L2 to label the two languages of a bilingual is more appropriate than any other pairs of terms which are "ideologically coloured". The L1-L2 division is also less likely to create the impression that one language is "inferior" to the other (Pavlović, 2013: 150).

It is noted that while most researchers of second language acquisition use L1 and L2 to distinguish the two languages, they do not interpret L1 and L2 the same way. Pedersen (2000: 199) points out that L1 does not necessarily refer to the language that is acquired first but “the language that is most readily available” to a bilingual. Fabbro (1999: 202), on the other hand, describes L1 and L2 as the language one “knows best” and the language he “masters least well” respectively. And in the case of Singapore where bilingual policy is officially adopted, English, a non-native language which is supposedly an L2, is taught as L1 and the students’ own mother tongues are taught as L2. However, this division of L1 and L2 for educational purpose is not absolute as there are people in Singapore who identify their mother tongues as their L1 and English as their L2 instead.

Keeping the above observations in mind, the L1-L2 division is adopted in this study, and L1 is taken to mean the language that the translator is more proficient in and L2 is the language that the translator is less proficient in.

2.2.1 L1 and L2 translations

For simplicity, the translation from L2 into L1 is called “L1 translation” and the translation from L1 into L2 “L2 translation”. Bilinguals usually find it easier to translate from L2 to L1 as opposed to L1 to L2 (Fabbro, 1999: 202). From a psycholinguistic perspective, Kroll & Stewart (1994) says that the ways bilinguals do L1 translation and L2 translation are different due to the different connections in their underlying memory structures. As a result, translators take a shorter time in L1 translation than L2 translation because the connection route in their mind is direct and shorter (Kroll & Stewart, 1994: 166). Another study by Pavlović & Jensen (2009) finds that L2 translation is cognitively more demanding on translators. However, they also point out that translating into L2 is not necessarily more difficult than into L1 (Pavlović & Jensen, 2009: 107).

Some scholars in Europe despise the idea of translating into L2, claiming that L2 translation is often unacceptable and of a poorer quality. A strong supporter of this stand is no other than Peter Newmark. Newmark (1988: 3) believes that translating into L1 is “the only way you can translate naturally, accurately and with maximum effectiveness”. He claims that L2 translation is usually “imperfect, approximate and essential” (Newmark, 1991: 62). The quality of L1 translation is deemed to be more superior because according to Grosman (2000: 17), bilinguals are presumably more proficient in their L1 and more conversant with the L1

culture. This is also affirmed by Dollerup (2000: 63) who states that non-L1 translators are at times “incapable of producing a good translation in the sense that it sounds like an authentic, native text to target language users” because they can never master the language as the L1 users do.

Pavlović (2013) also finds in his study that the quality of L1 translation is higher than that of L2 translation for translation of general text. However, he raises possible variables that may have affected his finding, such as the participants’ translation competence and text type (Pavlović, 2013: 163). Crystal (1987: 344) suggests that L2 translation should be preferred for text type that requires translation accuracy such as scientific materials as the translators should be more fluent in the source text (ST) than the target text (TT). Similarly, Snell-Hornby (2000: 38) also recommends L2 translation for texts with an informative or operative function.

With regard to the quality of L1 and L2 translations, Pavlović makes a rather neutral point: not all L2 translations are poor, and not all L1 translations are good (Pavlović, 2008: 81). It is unfair to say that only L2 translators jeopardise the quality of the translation. Marmaridou (1996: 62) notes that L1 translators do not approach the ST “with an empty mind, but with a mind already marked by the conceptual structures of precisely his or her mother tongue” or L1 in this case. As a result, L1 translators are sometimes unable to see the deepest meaning in the ST. Stewart (2000: 218) concurs and points out that L1 translators are more likely to misunderstand the ST as compared to L2 translators, thus producing inaccurate translation. He also states that L2 translation should not be deemed unacceptable so long as it renders the content of the ST and serves its purpose, even if it is not “stylistically immaculate” (Stewart, 2000: 223). Malmkjær (1993) also speaks up for L2 translators. She says that unlike L1 translators, L2 translators can share the writer’s interpretation of ST linguistic choices and appreciate their significance; therefore, the likelihood of reproducing them in the translation of L2 translators is much higher (Malmkjær, 1993: 227).

Pym (1992: 78) points out that “it is no longer enough to translate in one direction well, nor indeed to specialise in one particular field”. The high demand in the translation markets calls for greater flexibility and adaptability of translators, and so, many translators have to translate not only into their L1 but also from their L1. As mentioned above, both L1 and L2

translations are usable though there may be a quality difference. The quality of L1 and L2 translations produced by Singapore translators will be investigated in the next chapter.

2.2.2 Dominant bilingual and balanced bilingual

The discussions above are based on the binary opposition of L1 and L2. However, many bilinguals who have been speaking both languages since they were young in a multilingual and multicultural society often face the dilemma of identifying which one of the two languages should be their L1 and which one should be their L2 because they see themselves to be equally fluent in both languages. If they are indeed equally fluent in both languages in various contexts, they are known as “balanced bilinguals” (Baker, 2006: 9). On the contrary, the term “dominant bilinguals” is used to describe bilinguals who are more proficient in one language, which is usually their L1 (Ng & Wigglesworth, 2007: 7).

The self-perception of being equally competent in both languages is common but people who are truly “perfect bilingual” are extremely rare, “if they exist at all” (Pokorn, 2000: 64). It is believed that there must be one language that the translator can speak better than the other, and that achieving balanced bilingualism is impossible (Samuelsson-Brown, 2004; Fielding, 2015). Gitterman & Datta (2007), on the other, use comparative degree to describe the level of balanced bilingualism. Those who are able to use their L2 as proficient as their L1 in the later stage of their L2 acquisition are called the “more balanced bilinguals” and those at the early stage of L2 acquisition are the “less balanced bilinguals” (Gitterman & Datta, 2007: 63).

For the purpose of this study, Singapore translators are categorised into three groups: translators with English as L1, translators with Chinese as L1, and the “more balanced bilingual” translators. Although the term “more balanced bilingual” translators is not commonly used in scholarly research, this category is necessary in this study to reflect the bilingual profile of Singapore translators. In Chapter 4 of this paper, the quality of translations produced by Singapore translators of these three categories will be examined and analysed. But before that, we should examine the notion of “quality” first in the next section to understand how quality is seen in the industry.

2.3 Translation quality

The quality of a translated text is a reflection of the translator’s competence (Campbell, 1998: 8). Translation quality is often under the scrutiny of their receivers – clients, readers and

whoever that uses the translation for whatever purposes. The difficult situation that translators face in dealing with the various expectations of quality is described by Shuttleworth (1997: 78) as follows:

Translation is different from almost any other profession. Unlike accountancy or quantity surveying, it is a matter on which most educated people hold an opinion about how it should be done, which they are sometimes prepared to defend with astonishing passion. Aces are to be ground, and translators are more often than not guilty until proven innocent. More than in any field perhaps, lay people consider they have the right to tell practitioners how to do their job, and feel fully justified in interfering on their slightest pretext.

Translation scholars and industry practitioners hold diverse views on what constitutes a quality translation. And in fact, the definition of quality has never been constant. Traditionally, discussions on the quality of TT are mostly on the principles of accuracy, equivalence, adequacy, etc. (Hansen, 2008; Gile, 2009; Mateo, 2014). Since the 90s, following the development of Skopos theory, the evaluation of the quality of translation has been shifting towards a functionalist approach, by which the quality is dependent on how well the translation meets its communicative purpose (Schäffner, 1997: 2). And as translation practice is reshaped in the age of the Internet, Jiménez-Crespo (2015: 42) indicates that the notion of quality is also being redefined. Nevertheless, despite the ever-changing perception of TT quality, in practice, quality is defined from the perspective of the assessors who help the clients decide whether the translation is good to go using assessment tools best suited for their purpose (O'Brien, 2012; Karoubi, 2016). An objective translation quality assessment system is, therefore, necessary to help to eliminate any unnecessary comments made based on personal impressions and to secure the “professional standing” of the translators (Shuttleworth, 1997:78).

Some assessment models are designed to assess the competence of the translator or the process of translating rather than “translation” as a product itself (Karoubi, 2016). It is noted that when clients pay for a translation, they do not care about how the translation is produced or who the translator is – they only look at the end product i.e. the translation. Therefore, translation quality assessment models that focus entirely on the quality of the TT will be more practical for the fast-paced industry in assessing the quality of translation.

Williams (2004) divides translation quality assessment models in the market into two broad categories: quantitative and argumentation-centred (non-quantitative). The quantitative approach is based on error-counting while the argumentation-centred approach looks at translation as a whole unit. Although both approaches have their pros and cons, error-based models such as the LISA model are more popular in the localisation industry (O'Brien, 2012: 56). Besides that, most international translator accreditation systems such as the American Translators Association (ATA) also use error-counting models to decide whether candidates meet their minimum quality standards. According to Schiaffino & Zearo (2005), people can agree on errors more easily than “quality” which is an abstract concept, and it is also a general belief that a translation with fewer errors is a better translation. In other words, quantifying errors makes measurement of translation quality possible and the result less subjective (Schiaffino & Zearo, 2005).

There are many types of errors found in translation including pragmatic, semantic, idiomatic and stylistic errors (Hansen, 2010: 385). But generally, translation studies scholars classify errors into two categories, namely language errors and translation errors (Conde, 2013: 97). Language errors refer to errors that contain mistakes in vocabulary, syntax, grammar, style, etc. and can be detected in reading the target text alone. Translation errors, on the other hand, arise from the transfer of meaning from ST to TT and may be caused “by misunderstanding of the translation brief or of the content of the ST, by not rendering the meaning of the ST accurately, by factual mistakes, terminological or stylistic flaws, and by different kinds of interferences between ST and TT” (Hansen, 2010: 385). Conde (2013) evaluates in his study the impact of language errors and translation errors on the overall quality judgment, and concludes that language errors, though more commonly found in translations, are not as critical as translation errors in the professional environment. In other words, the quality judgment is very much affected by the existence of translation errors rather than language errors.

Errors are also classified based on their impact on the readability of the TT. For example, three levels of severity or grading i.e. “minor”, “major” or “critical” are proposed under the LISA QA model. A critical error will severely affect the quality of the translation and may cause the translation to be unusable at all.

Summing up the above, various error-based translation quality assessment models and tools have been created to help assessors to conduct objective evaluations. They are also useful in the sense that they provide a statistical view on the types of errors commonly made and therefore, allow the assessors and quality controllers in translation firms to apply measures to rectify and prevent flaws (Zarandona, 2013). In the next chapter, a translation quality assessment model will be applied to investigate the errors made by Singapore translators to give an overview of the quality of their translations.

3. METHODOLOGY

This chapter first presents an overview of the methods used in this study which includes questionnaires and a translation assignment. The details of the translation quality assessment model used in the study, the Multidimensional Quality Metrics (MQM) model, will also be given. It then describes the recruitment process and the invitation of raters. The pilot and actual assessments are also explained in detail in this chapter.

3.1 Design

This study was designed to address the research questions raised in Chapter 1. Before the study began, an application had been submitted to the relevant ethics committee for review and approval to involve human participants in the study (see [Appendix 1](#)). The approval was granted on 22 November 2016 (see [Appendix 2](#)).

The study consisted of three parts: a pre-study questionnaire, a translation assignment and a post-translation questionnaire. They will be explained in detail below.

3.1.1 Pre-study questionnaire

The first step of the study was to ascertain whether the respondent was a suitable participant for the study. Questionnaire was selected as the tool in this regard as the respondents' answers could be collected and evaluated more easily and quickly.

To be a participant of this study, one needs to be a: 1) Singapore Citizen or Permanent Resident who has completed his primary and secondary school education in Singapore. This is to ensure that the participant is bilingual and has sufficient years of experience living in a bilingual society; 2) translator who provides both English-Chinese (E-C) and Chinese-

English (C-E) translation services in Singapore. The questionnaire was designed with these criteria of participants in mind. For participants who met these criteria and were graduates of translation programmes, they were categorised into Group A. For participants who met these criteria but were not graduates of translation programmes, they were categorised into Group B. The questionnaire would help to recruit and categorise participants into Group A and Group B.

The questionnaire was created using Google Form. Many researchers have turned to online survey tools which offer many advantages such as time and cost efficiency, easy data collection and analysis, and wider reach to target participants (Fielding, 2012; Radha & Trivedi, 2015). However, control has commonly been cited as a possible problem of using online survey tools (Hewson, Yule, Laurent & Vogel, 2003: 84). In this study, the control issue was addressed with carefully designed questions that helped to ensure participants' voluntary participation and truthful responses.

Participants were required to acknowledge on a consent form that they had read over and understood the nature of the study and would be taking part in the study voluntarily. A copy of the consent form can be found at [Appendix 3](#). The participants were asked to provide their contact details for future communication. They were not required to provide their name, age and gender as their identity was not a consideration in the study. Therefore, the use of the masculine pronoun ("he", "his" and "himself") hereafter also includes the usage of the feminine pronoun where appropriate.

The questionnaire contained 15 questions, of which 11 questions were designed to elicit information about their educational background and experience as a translator. The other four were to find out their general perceptions on translation quality and the professionalisation of translation. Questions on professionalisation mainly focus on the need to establish a translators' association/authority and their desire to acquire professional translator certification.

A mix of closed and open questions were used. Closed questions were mainly used to check if the participants met the criteria and open questions were used when pre-provided categorical options were not possible, such as the highest language qualification in Question 8, and name of translation programme graduated from and the year of graduation in Question

10 (ii). Some of the questions in the questionnaire were interrelated to strengthen the reliability of their responses. For example, in Question 7, participants were asked if they are bilingual, and in Question 8, they were asked to provide their highest language qualification in English and Chinese. A copy of the pre-study questionnaire is included as [Appendix 4](#).

3.1.2 Translation assignment

Part 2 of the study was a translation assignment, which purpose was to test the translation quality of the participants in both English-Chinese and Chinese-English directions. Only participants who were found to have met the criteria would be invited to take part in this part of the study. The translation assignment was emailed to the eligible participants. They were not required to be present at any centre to complete the translation assignment so as to ensure that the translations were produced in the participants' usual working conditions with the tools and resources that they normally used.

The translation assignment contained one article to be translated from English to Chinese ("Article 1") and another article to be translated from Chinese to English ("Article 2"). The articles were adapted from articles from Singapore's national newspapers The Straits Times and Lianhe Zaobao respectively, with the permission by Singapore Press Holdings Ltd (see [Appendix 5](#)). The choice of articles mirrored the type of article used by ATA for their translator accreditation test, which is a "general text written for the educated lay reader in expository or journalistic style" (Koby & Champe 2013: 161). They were nontechnical in nature as the aim of the assignment was not to test the specialty knowledge of the translators. In addition, as the assignment involved translations of both directions, it also took into consideration Snell-Hornby's (2000: 38) suggestion of using informative text for L2 translation. Article 1 and Article 2 were edited to fit the purpose and word count was reduced to 280 and 299 words respectively⁵.

⁵ With regard to length of the article, China Accreditation Test for Translators and Interpreters specifies that candidates are tested on 600-word E-C translation and 400-word C-E translation (Zhao & Gu, 2016: 442). ATA, on the other hand, recommended 225 to 275 words for testing of the translator's translation competency (Koby & Champe 2013: 160). A similar word count i.e. 246 words was seen in the study conducted by Varzande & Jadidi (2015) to test the quality of L1 translation by professional translators, while Waddington (2001) used a text that was 330 words long in his study for L2 translation. Considering that the participants were not undergoing examination for accreditation purpose, it was decided that the two original articles be shortened.

As the assignment was to simulate the real-life situation, participants were given a brief on the intended use of the translation by the “client”. This would in a way help them to understand the requirements of the client and the quality expectation (Koby, Fields, Hague, Lommel & Melby, 2014: 418). Participants were also reminded that although it was for research purpose, they still had to translate to the best of their ability, and that the translations had to be end products that could be delivered to a real client. A sample of the translation assignment sent to participants can be found at [Appendix 6](#).

3.1.2.1 Instrument for assessment of translation assignment

Waddington’s Model D, which combines both error-analysis and holistic approaches, was used by Varzande & Jadidi (2015) when they studied the quality difference between translators with translation degree and those without. However, this model has received criticisms for being too general and more suitable for evaluation of word-for-word translation in the academic setting (Shahraki & Karimnia, 2011: 5221). Therefore, the model was not considered for this study.

Despite the possible limitations of quantifying errors, error-counting methods are said to be “a reliable method to establish intragroup quality rankings” (Jiménez-Crespo, 2015: 47), which would be useful for this study. As mentioned in Section 2.3, the LISA quality assessment framework that classifies and grades errors is widely adopted as the base by translation firms to develop their own assessment models. The Multidimensional Quality Metrics (MQM) is one of the assessment models that evolved from the LISA model. MQM was selected as the quality assessment model for this study for it focuses only on the translated content and not the process, and it was designed based on industrial standards, ISO/TS 11669:2012 – Translation projects. It allows users to customise the metrics from a list of more than 100 translation issues proposed⁶, more than double than what LISA model has. Customisation of metrics is especially useful in this study as the raters only need focus on examining certain issues that the translation may have fallen short of expectations for the text type selected.

⁶ For the full list of the translation issues under MQM, please refer to <http://www.qt21.eu/mqm-definition/issues-list-2015-12-30.html>.

Similar to the LISA model, MQM recognises the difference in impact of each translation issue on the overall quality of translation and categorises the level of severity of these issues into three levels: minor, major, and critical. Each level of severity is weighted in MQM scoring, i.e. minor is 1, major 10 and critical 100.

The scoring formula proposed by MQM is:

$$\text{Score} = 100.00 - P(N_1) - P(N_2) - \dots P(N_n)$$

P refers to the error penalty score. The calculation of P is as follows:

$$P(N) = [(\text{No. of minor translation issues} \times 1) + (\text{No. of major translation issues} \times 10) + (\text{No. of Critical translation issues} \times 100)] \div \text{No. of word count of translation}$$

The scores obtained would be used to rank the participants to give an overview of the quality of translations produced by translators of different profiles, either with or without translator education, balanced or dominant bilingual.

A pilot assessment was designed to test the usability of MQM. It will be discussed in the later part of this chapter.

3.1.3 Post-translation questionnaire

Part 3 of the study is a post-translation questionnaire. This questionnaire used more open questions as it aimed to gather more in-depth answers from the participants on their translation process and thoughts. Open questions would allow the participants to put down their responses more freely and were beneficial for qualitative analysis.

In the first part of this questionnaire, participants were required to answer questions relating to their translation process such as the time taken, the resources they had used to produce the translations and their considerations when translating. The second part of the questionnaire was set differently for Group A and Group B. Group A participants were asked about what they had learned in translation programme and its effect on their translation while Group B participants were asked about their opinion on what they thought they would have learnt in a translation programme. For a copy of this post-translation questionnaire, please refer to [Appendix 7](#).

Providing incentives can enhance recruitment in research (Ripley, Macrina, Markowitz & Gennings, 2010). Accordingly, a sum of \$30 was offered to participants who successfully completed all three parts of the study.

3.2 Process

3.2.1 Recruitment of participants

Participants were recruited through contacts and online portals for translators ProZ and Translators Cafe. Help was also sought from various sources including NTU to reach out to more participants. The recruitment of participants was open from end of November 2016 to early January 2017. Forty-nine translators responded to Part 1 of the study. The information provided by each participant was analysed to ensure their suitability for the study. Fifteen translators were found to have met the criteria for Group A (translators with translator education) and twenty-one translators for Group B (translators without translator education). They were invited to proceed to Part 2 of the study (translation assignment).

After the translation assignment was sent out, three translators replied that they could not proceed with the study and decided to withdraw, and nine were unresponsive to email and text-message reminders sent to them. In the end, 12 translators from Group A and 12 from Group B completed and sent back the assignment.

All 24 participants who completed Part 2 then proceeded to Part 3 of the study. Upon completion of Part 3 of the study, five from Group A and four from Group B refused to accept the token sum of \$30, and their decisions were indicated on the Payment for Participation form (see [Appendix 8](#)). Other participants who successfully completed all three parts of the study were duly paid.

3.2.2 Invitation of raters

Three raters were invited to assess the translations in early December 2016. Rater 1, who holds a bachelor's degree in English with Business and a bachelor's degree in translation and interpretation, has been practising as a translator/interpreter for close to 25 years. She designed translator/interpreter recruitment tests in her previous role in a public institution, and is also currently an associate faculty with a local university who marks assessments for translation/interpreting courses. Rater 2 is a translator with more than 20 years of experience and a project manager with translation agencies in charge of project execution, delivery and

quality assurance. Rater 3 has been doing translation quality control and recruitment of translators in a local translation firms for more than 10 years. However, it was unfortunate that after the preliminary discussions, Rater 3 decided to withdraw from the study in end December 2016. Therefore, the study proceeded with two raters.

3.3 Assessment

Upon discussion with the raters, four core translation issues were identified from the MQM list of issues⁷. They were considered to be more likely to arise in translation of journalistic articles. The four core translation issues are Accuracy, Fluency, Style and Terminology. The raters also agreed on the subcategories and definitions of each issue.

Having identified the issues, the scoring formula used in this study was therefore:

$$\text{Score} = 100.00 - P(\text{Accuracy}) - P(\text{Fluency}) - P(\text{Style}) - P(\text{Terminology})$$

The raters were asked whether they would like to set a passing score. Both raters eventually agreed that a score below 60.00 would render the translation unfit for use, and thus failed.

A scoring sheet was created using Microsoft Excel based on the four core issues identified. The raters agreed upon discussion that the scoring sheet should be designed in a way that could help them compare the ST and the TT. The raters also pointed out that the length of the two articles was relatively short and therefore, assessment could and should be done on sentence level. The suggestions by the raters were noted. That would mean that the TT would have to be transferred sentence-by-sentence onto the scoring sheet (see [Appendix 9](#) for a sample of the scoring sheet).

The descriptions of the four issues provided by MQM were referred upon to create a detailed description sheet (see [Appendix 10](#)) to assist the raters in their scoring and to ensure that all raters had the same understanding of each issue. The descriptions of levels of severity proposed by MQM were also adopted (see [Appendix 11](#)).

As stated by Waddington (2001: 322), it is important for the raters to be very familiar with the grading scale and descriptions so that they know how to use the method accurately and

⁷ At this point, Rater 3 was still involved in the identification of translation issues.

reliable assessment result can be obtained. Therefore, raters were briefed on how to use the MQM model for assessment and a pilot assessment was conducted.

3.3.1 Pilot assessment

A pilot assessment was given to the raters to test the usability of the scoring sheet created⁸. The raters were shown the ST of both articles in the original format given to participants, i.e. with instructions and briefs included. This was to ensure that the raters were aware of the intended use of the TT.

One assignment (B2) was randomly chosen from the assignments received from the participants for the pilot assessment. The translations were transferred sentence-by-sentence onto the scoring sheet and sent to the raters. The identity and contact of the participant were unknown to the raters to maintain the objectivity of the assessment.

Both raters returned the marked scoring sheets in a day and commented that the scoring sheet was easy-to-use. The scores given by the raters, however, were significantly different. For the E-C translation, the scores given by Raters 1 and 2 were -120.30 and -25.14, respectively. For the C-E translation, the scores given by Raters 1 and 2 were 8.05 and 0.42, respectively.

The results were compared, and it was found that while both raters were able to identify the types of errors in the translations, they seemed to disagree on the level of severity of most of the errors. Feedback was gathered from the raters to understand the reasons behind the difference in scoring. The descriptions of severity by MQM were also re-studied. In the end, a 3-question check (as shown in Table 1) was proposed based on MQM's descriptions of severity to assist the raters in their assessment.

The raters were agreeable to adopting the 3-question check in their assessments. The translations were then reassessed by the raters. The raters were also reminded to follow the descriptions of issues and levels of severity closely.

The difference in scoring this time round was much smaller, with Rater 1 giving 24.39 and Rater 2 27.37 for the E-C translation, and 37.29 and 38.56 respectively for the C-E translation.

⁸ Rater 3 had withdrawn at this point and did not proceed with the pilot.

The raters confirmed that they were more confident in the scoring after the 3-question check was added. The similarity of results also showed that the raters had obtained the necessary skills to use the scoring sheet.

3-Question Check	(If your answers to the following questions are 2 Minor and 1 Major, take the majority i.e. Minor)
1. Is the issue noticeable to normal readers?	<p>Minor: Maybe, but even if it is noticeable, a normal reader will repair the problem in his mind and move on.</p> <p>Major: Yes, as the readers need to put in extra effort to understand the intended meaning but are still able to move on after that.</p> <p>Critical: Yes, it is so obvious that it has disrupted the reading completely.</p>
2. Does the issue impact the usability or understandability of the content?	<p>Minor: No.</p> <p>Major: Yes, usability/understandability is compromised but the issue doesn't render the content totally unusable.</p> <p>Critical: Yes, the translation is unfit for the intended purpose.</p>
3. Must the issue be corrected prior to use of content?	<p>Minor: Can choose to fix it or leave it. The resolution is at the discretion of those responsible for the content.</p> <p>Major: Yes, as the intended meaning has changed.</p> <p>Critical: Yes, as the translation could result in harm to the user.</p>

Table 1: 3-Question check for determination of level of severity

3.3.2 Actual assessment

After the pilot assessment, all other translation assignments received from the participants were transferred sentence-by-sentence onto scoring sheets and sent to the raters. The assessment was fully completed in February 2017.

3.4 Data consolidation

Data collected from the pre-study questionnaire and post-translation questionnaire using Google Form was exported and saved in Microsoft Excel for further data analysis. Completed scoring sheets returned by the raters were consolidated and compared. The results are presented in the next chapter.

4. DATA ANALYSIS

This chapter presents the findings from the three parts of the study, namely the pre-study questionnaire, translation assignment and post-translation questionnaire. It mainly examines the differences in responses and translation quality between Group A and Group B, as well as

among balanced bilinguals, L1 translators and L2 translators. For easier reference, Group A participants were called A1, A2 ... A12, and Group B participants B1, B2 ... B12.

4.1 Pre-study questionnaire

The first part of the pre-study questionnaire collected data relating to the background of the participants. The participant profile is presented below.

4.1.1 Educational background

All 24 participants confirmed in Question 1 that they have completed their primary and secondary school education in Singapore. Their highest qualifications are shown in Figure 1.

Figure 1: Education qualification of participants in each group

As many as twenty-two participants (92%) reported that they hold at least a degree or graduate diploma. One participant from Group B has only a secondary school qualification. Another participant from Group B stated that his highest qualification is Chartered Certified Accountant, a professional qualification that is above the level of advanced diploma (Association of Chartered Certified Accountants, 2015) but does not fall under any of the above classifications. Therefore, his qualification is listed under “Others”.

The 12 participants in Group A also stated that they are graduates of university-level translation programmes. Their qualifications in translation are shown in Figure 2.

Figure 2: Education qualification in translation of Group A participants

Among Group A participants, four (34%) graduated from BATI, UniSIM, seven (58%) graduated from GDTI, NTU and one (8%) graduated with a Master of Arts in Chinese Translation and Interpreting from The University of Queensland, Australia. The high number of participants from GDTI programme might be due to the invitation-to-participate email sent out to GDTI graduates through NTU. In Section 4.2, the translations produced by these participants with translation education will be compared with the translations produced by Group B participants who have no relevant degree in translation in order to find out whether translator education has made them a more competent translator.

4.1.2 Language proficiency

All 24 participants confirmed that they are bilingual in English and Chinese. Their highest language qualifications in English and Chinese are shown in Table 2.

Highest language qualification	Group A		Group B	
	English	Chinese	English	Chinese
O-level	4	5	3	5
AO-level	0	3	0	2
A-level	8	2	7	3
Bachelor's degree	0	1	2	2
Others	0	1	0	0
Total	12	12	12	12

Table 2: Highest language qualification of participants in each group

Except for one participant from Group A indicating that his highest language qualification is HSK Chinese Proficiency Test (Level VI), all other participants reported that they have a minimum O-level qualification in English and Chinese. This corresponds to the result in

Figure 1 as Singapore students who have completed their secondary school education will have sat for O-level or N-level examinations.

4.1.3 Self-rated proficiency in English and Chinese

Participants' language qualifications may not reflect their true ability to use the language. Therefore, participants were asked to rate their proficiency in English and Chinese. As shown in Figure 3, 45.83% said they have higher proficiency in English as compared to Chinese and only 16.67% said they are more proficient in Chinese than English. Their answers were not unexpected, considering that most Singaporeans are more conversant in English. In addition, about 37.50% rated themselves to be equally proficient in both languages.

Figure 3: Self-rated proficiency of English and Chinese by participants

For completeness, their answers are also presented in Figure 4 based on Groups A and B.

Figure 4: Self-rated proficiency of English and Chinese categorised by group

Most participants in Group A (66.67%) saw themselves to be more proficient in English but most in Group B (58.33%) saw themselves to be equally proficient in both Chinese and English. As mentioned in Chapter 1, most translators in Singapore use their language abilities instead of relevant qualification to venture into the translation industry. This confidence of having a balanced bilingualism is clearly seen in Group B.

For comparison of the translation quality of participants based on their language profile, those who have indicated that they are more proficient in one language will be considered as dominant bilinguals. They are either translators with English as L1 or translators with Chinese as L1. Those who have indicated that they are equally proficient in both languages are considered as the “more balanced bilingual translators” in this study.

4.1.4 Full-time vs. freelance status

All 24 participants reported that they provide English-Chinese and Chinese-English translation services. Figure 5 shows their full-time-freelance working status.

Five from Group A and two from Group B are full-time translators. Seven from Group A take translation jobs on a freelance basis and do not draw their income primarily from translation. Of the 10 participants who work as freelance translators in Group B, only one indicated that translation is his primary source of income while the other nine do not rely on translation as their main source of income.

Figure 5: Full-time vs. freelance status of participants

Overall, there are more translators working on a freelance basis than on a full-time basis, as shown in Figure 5.

4.1.5 Years of translation experience

As Figure 6 shows, all participants have less than 10 years' experience in translating. The average years of translation experience of Group A participants is 5.16 years and the average years of translation experience of Group B participants is 4.17 years.

Figure 6: Years of translation experience of participants

The participants were further divided into two groups based on years of experience. Five years was chosen as the divider line. According to ISO 17100:2015, a professional translator should have “(2) a recognised graduate qualification in any other field from an institution of higher education plus *two years of full-time professional experience in translating*”. As shown in Sections 4.1.1 and 4.1.4, most participants have a graduate qualification but they mostly work as freelance translators. Therefore, it was decided that five years of freelance experience would be an appropriate equivalent of two years full-time professional experience.

As shown in Figure 7, 58% of them have translation experience of five years and above and 42% have translation experience of less than five years.

Figure 7: Participants with translation experience of less than five years and five years and above

Next, the following sub-sections presents the responses gathered from the second part of the pre-study questionnaire, including the participants' perceptions of translation quality and professionalisation of translation in Singapore.

4.1.6 Perceptions of translation quality

Participants were asked how they perceived translation quality in general as their perceptions of quality may affect their translations. Their responses are recorded in Figure 8.

Figure 8: Perceptions of translation quality

As shown in Figure 8, the five most common perceptions that participants have of translation quality relate to 1) accuracy (100%); 2) style (including appropriate writing style 95.83% and native-like expression 87.50%); 3) target audience (91.67%); 4) fluency (75.00%); and 5) revision (75.00%). Of these five aspects, accuracy, style and fluency had been selected by the raters as metrics for assessment of translation. The result of whether participants met these criteria which they believed constitute a quality translation will be discussed in Section 4.2.

4.1.7 Need for translators' association/authority in Singapore

Participants were asked if it was necessary to establish a translators' association/authority in Singapore to provide accreditation for translators. As seen in Figure 9, participants showed strong support (87.50%) for the establishment of such an association/authority. This is made up of 10 from Group A and 11 from Group B. Two from Group A and one from Group B, which accounts for 12.50%, deemed the establishment of such association/authority unnecessary.

Figure 9: Need for translators' association/authority in Singapore

4.1.8 Desire for professional translator certification

All 24 participants reported that they do not have a professional translator certification. They were asked if they had considered obtaining one, and their responses are demonstrated in Figure 10.

Four from Group A stated that they had considered obtaining a professional translator certification and five stated that they had no such intention. Two participants from Group A mistakenly thought professional translator certification referred to their translation degree/graduate diploma qualification and named their degree/graduate diploma as their

professional certification, thus leaving this question unanswered. As for Group B, 10 indicated that they had wanted to obtain a professional translator certification and two were not interested in getting one.

Figure 10: Desire to obtain professional translator certification

Comparing the findings in Figure 9 and Figure 10, while 10 from Group A agreed that Singapore needed a translators' association/authority that provides certification services, only some of them wanted to obtain certification from such association/authority. Five expressly stated that they had not considered obtaining a professional translator certification. It might be because they did not think an additional certification is necessary to prove their translation ability as they had already had a graduate diploma/degree. Group B, on the other hand, showed stronger support for the establishment of a certification body in Singapore and desire to obtain a professional translator certification.

4.1.9 Perceptions of professional translators

The participants were asked about their perceptions of a professional translator in Singapore. Their responses are recorded in Figure 11.

Bilingualism skills of translators came top with 95.83% agreed that a professional translator should be effectively bilingual. It is one-third more than the second highest perception, which is possession of a translation degree/diploma (62.50%). It is observed that only 20% in Group A (translators with translator education) agreed that a translation degree would make them professional translators. This result shows that a translation degree/diploma is perceived to be as important as bilingual skills in becoming a professional translator in Singapore.

Figure 11: Perceptions of professional translators

Slightly more than half of them (54.17%) believed that translators holding a translator certification would be known as professional translators. Among them, more participants in Group B than Group A (33.33% vs. 20.83%) agreed to this statement. This could explain why Group B is more desirous of getting a professional translator certification as compared to Group A, as seen in Section 4.1.8. Besides that, half of the participants agreed that years of experience in the industry could turn one into a professional translator. Again, Group B who has no translator education and any translator certification is more agreeable to this statement as compared to Group A.

For full presentation of the responses to the pre-study questionnaire, please refer to [Appendix 12](#). Next, the findings from Part 2 of the study (translation assignment) will be presented and discussed.

4.2 Translation assignment

In this section, the quality of E-C translations and C-E translations produced by the participants are presented based on their ranking of average scores as given by Rater 1 and Rater 2. The differences in translation quality between Group A and Group B, as well as among the more balanced bilinguals, L1 translators and L2 translators, will be compared and analysed. The errors made by the participants are also examined to see if common errors made by each group can be identified.

All completed translation assignments received from participants can be found at [Appendix 13](#). The scoring sheets returned by both raters are annexed at [Appendix 14](#). For easier reference, the scores of each participant are presented at [Appendix 15](#).

4.2.1 Quality of E-C translation

4.2.1.1 Overall scoring

As shown in [Appendix 15](#), the scores of Group A for E-C translation ranged between -59.86 and 91.59. The median score of Group A is 68.76 and the mean score is 49.79. The low mean score of Group A was mainly due to the below zero scores (-40.65 and -59.86) obtained by two participants. For Group B, the scores ranged between -23.01 and 95.00. The median score of Group B is 87.52 and the mean score is 63.23. Overall, there were four in Group A and four in Group B that did not meet the passing score of 60.00. The errors that caused their failures will be examined in Section 4.2.1.2. Comparing the scores of these two groups, it is obvious that Group B produced translations of better quality than Group A.

The top 10 participants who scored the highest in E-C translation, together with their bilingual profile and years of experience, are presented in Table 3. As shown in Table 3, Group B participants took six spots in the chart, including all the top three spots. Again, this proves that Group B produce better quality translation than Group A.

	Participant	Score	More balanced bilingual (=)/ Chinese as L1 (C)/English as L1 (E)	Years of experience
1	B1	95.00	C	4
2	B9	94.79	E	7
3	B10	93.80	=	7
4	A5	91.59	E	5
5	B7	89.98	=	1
6	B6	89.28	=	2
7	B3	85.77	=	6
8	A6	85.17	E	1
9	A3	84.62	E	9
10	A1	82.02	=	6

Table 3: Top 10 highest scoring participants in English-Chinese translation

Translators who have translation experience of five years and above also scored higher as compared to those who have less than five years' translation experience, as observed in Table 3.

Among the 10, half of them were the more balanced bilingual translators, four were L2 translators and one was L1 translator. As the numbers of participants in each bilingual profile group were not equal, the mean and median of each group were further examined.

As shown in Table 4, the more balanced bilingual translators scored the highest among the three groups for E-C translation. The median and mean scores of the L2 translator group were affected by the scores of the two Group A participants who scored below zero.

More balanced bilingual translators (N=9)		Translators with Chinese as L1 (N=4)		Translators with Chinese as L2 (N=11)	
Median	Mean	Median	Mean	Median	Mean
82.02	61.09	58.85	59.94	66.56	51.52

Table 4: Median and mean scores of each bilingual group for English-Chinese translation

Summing up the above, participants who produced better quality E-C translations are those who 1) do not have translator education, 2) are more balanced bilingual, and 3) have translation experience of five years and above.

4.2.1.2 Errors in E-C translation

Errors made by the eight translators who scored lower than 60.00 were first examined. It was observed that all of them had made a few “critical” errors in their translations. As mentioned, the weightage of a “critical” error under MQM is 100, and therefore will cause a lot of marks to be deducted.

Participant A12 who scored -59.86 omitted the translation of three sentences, and that resulted in three “critical errors”. The “critical” errors made by Participants A11 (-40.65), B8 (-23.01), A10 (39.40) and B12 (27.07) were related to serious inaccuracies and poor expressions in TT that rendered the text unfit for use. On the other hand, Participants B2 (25.88) and A8 (46.75) seemed to have problems understanding the ST and thus making a few “critical” errors in the transfer of ST meaning. The errors of Participant B5 (31.61) were more of a technical nature as he had used 私利 (*si li*: private profit) instead of 私立 [*si li*: private (entity)] throughout the translation to describe private institutes. That constituted a “critical” error. There were also many spaces between Chinese characters in his translation that the raters could not ignore but marked them altogether as one “major” error under “Fluency”.

The errors made by other participants who scored above 60.00 were also examined to identify the common translation problems of the participants. None of the errors was exclusive to Group A/Group B, or any of the bilingual group. In general, the majority of the errors are errors under “Accuracy”, and they are mostly on lexical level.

Most participants seemed to have difficulties using the right terms that give equivalent meaning of the ST in the translations. For example, the term “players” at Line 10 refers to industry players. However, it was mistranslated as 玩家 (*wan jia*: game player), 球员 (*qiu yuan*: player in a ball game), 成员 (*cheng yuan*: member) and 角色 (*jue se*: role). One participant even translated the term as 民族 (*min zu*: ethnic group), which was marked as a “critical” error by both raters. Other terms commonly mistranslated by participants include “cohort” and “publicly funded institutes” at Line 6, “national movement” at Line 9, and “niche” at Line 10.

In addition, some participants also made a number of “Fluency” errors. Those are mostly punctuation errors where an English comma or full stop was used in the Chinese TT. However, they were counted as “minor” errors”.

4.2.2 *Quality of C-E translation*

4.2.2.1 *Overall scoring*

As shown in [Appendix 15](#), the scores of Group A for C-E translation ranged between -158.12 and 97.82. The median score of Group A is 63.56 and the mean score is 42.69. The low median and mean scores obtained by Group A were due to the extremely low score of one participant, i.e. -158.12. For Group B, the scores ranged between 37.93 and 90.98. The median score of Group B is 82.42 and the mean score is 74.42. Five in Group A and two in Group B failed to score above 60.00. The errors that caused their failures will be examined in Section 4.2.2.2. Comparing the scores of these two groups, it is obvious that Group B produced translations of better quality than Group A for C-E translation.

The top 10 participants who scored the highest in C-E translation, together with their bilingual profile and years of experience, are presented in Table 5 for further analysis.

	Participant	Score	More balanced bilingual (=)/ English as L1 (E)/Chinese as L1 (C)	Years of experience
1	A1	97.82	=	6
2	A2	92.83	C	8
3	B7	90.98	=	1
4	B3	87.44	=	6
5	B10	87.40	=	7
6	B6	82.95	=	2
7	B4	82.68	E	5
8	B1	82.17	C	4
9	B9	80.62	E	7
10	A4	74.90	E	7

Table 5: Top 10 highest scoring participants in Chinese-English translation

As seen in Table 5, although Group A participants (A1 and A2) came in the top two positions, there were a total of seven Group B participants who made it to the top 10 chart. This shows that Group B produced better quality translation than Group A in general.

Table 5 also shows that translators who have translation experience of five years and above scored higher than those who have less than five years’ translation experience.

It is evident from Table 6 below that the more balanced bilingual translators scored the highest among the three groups for C-E translation. The scores of the L1 translator group were very much affected by the Participant A12 who scored -158.12, thus the mean score was only 38.28. However, even if Participant A12 was taken out, the mean score for the L1 translator group was still low, i.e. 57.92 because the overall quality scores were not as high as the two other groups.

More balanced bilingual translators (N=9)		Translators with English as L1 (N=11)		Translators with English as L2 (N=4)	
Median	Mean	Median	Mean	Median	Mean
82.95	76.15	63.51	38.28	72.43	74.71

Table 6: Median and mean scores of each bilingual group for Chinese-English translation

Therefore, it is concluded that participants who produced better quality C-E translations are those who 1) do not have translator education, 2) are more balanced bilingual, and 3) have translation experience of five years and above.

Comparing the overall quality in E-C and C-E translations, it is found that Singapore translators could translate better from Chinese to English than from English to Chinese. The average score for C-E translation is 58.55 while for E-C is 56.51.

4.2.2.2 Errors in C-E translation

There was only one below zero score for C-E translation. Participant A12 who scored -158.12 was found to have omitted the translation of three full sentences and thus made three “critical errors”. Omission mistakes were also made by Participant A12 in his E-C translation. Besides that, Participant A12 also had many “major” errors under “Accuracy”, which caused marks to be deducted. This shows that the translator was not a competent and careful translator.

Generally, errors in C-E translation were not as many as errors in E-C translation. Most of them were minor and major errors which included inaccurate translations, omissions of information that did not affect the readability of text much, and some grammatical errors.

Many participants were found to have made errors at Lines 4, 5 and 6. These lines were more complex in Chinese and might have caused difficulty in understanding the meaning of the ST. For example, Line 4:

随着选择单身、不生育的人增加，以及孩子出国后选择不回来的现象普及，那些在 10 年后步入老龄的群体不少是教育程度高、经济独立，但可能缺少家庭温暖的人。(Translation by A1: The number of people choosing to remain single and those opting not to have children are increasing, and it is becoming common to see children deciding not to return after going abroad. As such, many of those who will be entering old age in ten years, though highly educated and economically independent, may lack the warmth and comfort of family.)

Comparing errors made in E-C translation and C-E translation, it was found that Singapore translators made both language errors and translation errors, and language errors were more commonly found in both translations. The common errors made in E-C translations in this study were mostly on the use of correct terms and fluent expression. Looking back at the several mistranslation incidents that have caused criticisms in Singapore, they also arose from the use of wrong or inappropriate equivalent terms. Translation errors were also more serious in E-C translation than in C-E translation as most of them had jeopardised the usability of the translated text. Therefore, Singapore translators need to brush up their use of Chinese terms and expressions.

4.3 Post-translation questionnaire

This section presents findings relating to the process of translation of participants. Their responses will be cross-referred to the quality of their translations shown in Section 4.2 where appropriate. This section also examines how Group A participants thought about the effect of translator education on their translations.

Full responses to the post-translation questionnaire can be found in [Appendix 16](#).

4.3.1 Time taken to complete translation

The difference in time taken to complete E-C translation and C-E translation between Group A and Group B will first be examined in this section. Then, it will compare the time taken by

L1/L2 translators and the more balanced bilingual translators in completing the translations of each direction.

Figure 12 shows the time taken by Group A and Group B in completing the E-C translation.

Figure 12: Time taken to complete English-Chinese translation by Group A and Group B (in minutes)

For Group A, the time taken to complete the E-C translation ranged between 60 minutes and 240 minutes. The median is 120 minutes and the mean is 126.67 minutes. For Group B, the time taken ranged between 25 minutes and 180 minutes. The median is 84 minutes and the mean is 96.92 minutes. Overall, Group A spent a longer time in completing the E-C translation than Group B.

The time taken by Group A and Group B in completing the C-E translation is shown in Figure 13. The time taken by Group A in completing the C-E translation ranged between 25 minutes and 210 minutes. The median is 60 minutes and the mean is 80 minutes. The time taken by Group B ranged between 18 minutes and 90 minutes. The median is 60 minutes and the mean is 56.08 minutes. Again, the overall time spent by Group A in completing the translation is longer as compared to Group B.

Figure 13: Time taken to complete Chinese-English translation by Group A and Group B (in minutes)

The findings in Figure 12 and Figure 13 show that Group B is able to produce translations much quicker than Group A. It is also noted that despite spending lesser time on translation, the quality of translation produced by Group B was not compromised, as shown in Section 4.2.1. Therefore, Group B, though without translator education and has fewer years of translation experience on average, was still able to surpass Group A in terms of the ability to produce translations of higher quality and in a shorter time.

The time taken by each bilingual profile group is also examined. As shown in Figure 14, L1 translators in E-C translation took the longest time. The average time taken by L1 translators was 152.50 minutes. L2 translators took an average of 111.36 minutes to translate from English into Chinese while the more balanced bilingual translators took 94.22 minutes on average, which is the shortest time.

Figure 14: Time taken to complete English-Chinese translation by L1/L2 translators and more balanced bilingual translators (in minutes)

Figure 15 shows the time taken to complete C-E translation by these participants.

Figure 15: Time taken to complete Chinese-English translation by L1/L2 translators and more balanced bilingual translators (in minutes)

L2 translators took an average of 120 minutes to translate from Chinese into English while L1 translators took only an average of 63.18 minutes, which is almost half the time taken by L2 translators. The more balanced bilingual translators took the least time, which was 57.56 minutes on average.

Comparing the findings from Figure 14 and Figure 15, the more balanced bilingual translators could translate quicker than the dominant bilingual translators in both directions. Not only that, the more balanced bilingual translators could also produce better quality translations in shorter time than the dominant bilingual translators, as seen in Section 4.2. This further proves that being equally proficient in both languages is important to succeed as effective and efficient translators.

4.3.2 Level of difficulty of translation

Participants were asked to rate how difficult the translation assignment was to them, with 1 being “very easy” and 5 being “very difficult”.

It is obvious from Figure 16 that E-C translation was easier to L1 translators who have higher proficiency in Chinese as their average difficulty rating was only 2.5. The average rating by L2 translators who have lower proficiency in Chinese was 3.45 while the more balanced bilingual translators rated 3.11 on average. However, although L1 translators considered the E-C translation to be easy, they took the longest time to complete the translation (see Section

4.3.1) and also did not score as high as the other two groups in their translations (see Section 4.2.1).

Figure 16: Level of difficulty of English-Chinese translation

The difficulty ratings given by each group for C-E translation are shown in Figure 17. Again, translators who were translating into their L1 thought that the translation was easy. The average rating by translators with English as L1 was 2.45. Translating into English was also not as difficult as translating into Chinese for the other two groups, with the more balanced bilingual translators rating 2.67 and L2 translators rating 2.75 for C-E translation. This echoed the C-E translation quality results in Section 4.2.2 as most translators, including L2 translators, scored relatively well. The low difficulty of C-E translation was also a reason why participants took a shorter time to translate as compared to E-C translation.

Figure 17: Level of difficulty of Chinese-English translation

4.3.3 Important considerations when producing translations

Figure 18 shows the participants' considerations when producing translations. Their responses could be grouped into four broad categories: items (1), (4), (5), (8) and (10) were under "Accuracy"; items (2), (9) and (12) "Target audience"; items (6), (7) and (11) "Style";

and item (3) “Fluency”. It should be noted that most of the items were pre-provided options in the questionnaire for the participants to select. Participants tend to just select from the pre-provided options and ignore writing down other possible options under “Others”. In this case, only three participants provided additional five answers under “Others”.

Figure 18: Important considerations when producing translations

The responses shown in Figure 18 were in line with their perceptions of quality as shown in Section 4.1.6. Accuracy was the main consideration of most participants when they translated.

However, accuracy errors were also found most in their translations, as demonstrated in Section 4.2. This showed that while they were aware of the importance of being accurate in their translations, they still could not meet the expectation of accuracy.

4.3.4 Usefulness of translator education

Group A participants were asked about their perceptions of the effects of translator education on them. Of the 12 participants from Group A, three “fully agreed” and nine “partially agreed” that they were able to translate in the manner demonstrated in their translation assignments because of their translator education. They were asked to state their reasons but one participant did not provide his answer. The responses of the other 11 Group A participant are recorded as follows:

Translation techniques

About 45.45% reported that translation techniques learnt from translation were useful. The techniques learnt include “addition, omission, etc.” One participant highlighted that with translation techniques learnt, he could form sentences better, and the other participant stated that he could produce accurate, idiomatic and coherent translations as a result of translator education.

Linguistic skills

About 27.27% indicated that their linguistic skills had improved. One participant stated that “[translator education] strengthens my linguistic ability”. The other participant also highlighted that contrastive analysis was particularly useful for him.

Theoretical knowledge

About 9.09% stated that theoretical knowledge was useful. One participant stated that theoretical foundation had given him the confidence to make sound translation decisions. On the other hand, about 9.09% pointed out that not all theoretical knowledge learnt in translator education could be applied in real life.

Not just because of translator education

About 45.45% did not agree that translator education was the only thing that made them the translators they are today and put down other factors that had enabled them to translate in the manner demonstrated in their translations. Among them, 27.27% cited their work background

and previous experience in translating. One of them pointed out that the skills to translate were not obtained through translator education but were “learned and practiced”. In addition, one participant mentioned that he could translate, with or without translator education. Another participant indicated that mastery of both languages was more essential than translator education “in order to produce a native-sounding and quality piece of translation work”.

Having examined the responses of Group A, it can be concluded that not all translators who have studied translation are fully convinced of the usefulness of translator education. Some of their responses were also similar to the general views of those who are against translator education (see Section 2.1.1). Their responses will be further discussed in Section 5.1.

5. DISCUSSION

This chapter focuses on addressing the three research questions posed in Chapter 1, as well as further discussing the issues raised in Chapter 4. It will also propose possible areas for future research.

5.1 Translator education

As demonstrated in Section 4.2, Singapore translators with translator education did not produce higher-quality translation than those without. Translators without translator education were found to have taken at least half the number of spots in the top 10 charts of both E-C and C-E translations. This finding is different from what Varzande & Jadidi (2015) had found. A reasonable explanation can be as simple as the fact that the participants involved were different. Singapore translators in this study have been bilingual since they were young and have had daily experiences in translating and interpreting, unlike participants in Varzande & Jadidi’s study who acquired English as their L2 later on in their lives. The issue of bilingualism will be further examined in Section 5.2.

Besides that, the assessment model used in their study was also said to be more suitable for academic assessment (Shahraki & Karimnia, 2011: 5221). The MQM model used in this study, on the other hand, is a tool that follows the industry practice. The raters of this study were also carefully selected for the relevant skills and experience they possess in assessing translations for clients. In this regard, their scoring has also reflected that there is a possible

gap between translation assessment in an academic setting and that in the industry. As a matter of fact, although Group A participants have successfully passed the translation assessment in universities and graduated, they are still unable to meet the quality requirements of the industry. Therefore, attention should be called to bridge the gap of what constitutes quality translation between academia and industry in Singapore.

It was observed from the responses of translation graduates in Section 4.3.4 that they believed they already had some pre-existing qualities or disposition even before taking a translation programme. It is regrettable that this study did not delve into these qualities or relevant translation experience that Group A participants had before their translator education. They were also not asked about their motivation to pursue a translation degree. It is suggested that these questions be taken into consideration for future research.

In spite of the findings above, it is hoped that it will not deter anyone from pursuing a translation degree. We have to bear in mind that translator education is relatively new in Singapore. More time may be required to observe how the landscape of the local translation industry will change because of the increasing number of translators with specialised qualification in translation. However, as mentioned in the introduction, research on the impact of translator education and performance of translation graduates are lacking. Therefore, the career development of translation graduates must first be tracked and measured to identify areas of improvement that translation programmes, the industry and the National Translation Committee should work on to elevate the standard of translation in Singapore. Continual assessment of their professional career is also important to ensure that translation programmes are producing translators that really meet the market needs.

As observed, more and more industry standards such as ISO 17100:2015 have acknowledged that a translation degree is required if one wishes to practice as a professional. But will translation become a profession like medicine one day where a professional degree and registration with accreditation body are expressly stipulated by law? It is unlikely in the case of Singapore, based on the current situation in the industry. As there is no legal reason to stop bilinguals in Singapore from entering the market despite their lack of education in translation, what the industry should consider is to at least have some form of regulation and control. The issue of professionalisation will be further explored in Section 5.3 below.

5.2 Bilingual profile

It was found that the bilingual profile of Singapore translators affects their ability to translate in both directions. In this study, the more balanced bilinguals produced higher-quality E-C and C-E translations as compared to the dominant bilinguals who are more proficient in one language. This finding rejects Newmark's (1988: 3) conviction that only L1 translators could translate "naturally, accurately and with maximum effectiveness". As shown in this study, L1 translators in both E-C and C-E translations did not score as high as the more balanced bilingual and L2 translators. At the same time, Crystal's (1987) and Snell-Hornby's (2000) suggestions that L2 translation is most appropriate for informative text type which requires accuracy has also proven to be only partially true. It is observed that L2 translators, though more proficient in the ST, still showed difficulties in comprehending the ST, especially in E-C translation. Translators who are equally proficient in both languages, on the other hand, are more capable in grasping the meaning in the ST fully and transferring the meaning to the TT fully. Not only were they able to translate more accurately, the time taken by them to complete the translations was also shorter. Therefore, it can be concluded that the most competent translators are those who are more balanced bilingual.

5.3 Translation experience

As mentioned in Section 2.1.1, the current recruitment practice in the industry is that you have either a translation degree or some translation experience. The length of experience of translator was not one the main aspects that this study had initially aimed to investigate. However, translation experience appeared to be a possible factor that might affect the translators' abilities to produce high-quality translation when literature was reviewed, as some scholars and translators believed that translation skills are acquired through practice over time and through not translator education.

In this study, it was found that one's translation experience plays a part in his translation quality (see Section 4.2). It can take an average of five years for a translator to build up their skills to produce high-quality translation. However, this study did not conduct a deeper research to find out if the translators have also received other form of translator training in their experience such as in-house training by translation firms and veteran translator mentoring programme. It is suggested that the area of translator training be further explored in addition to translator education.

5.4 Professionalisation of Singapore translation industry

Three main aspects relating to professionalisation of the industry have been investigated in this study, namely translator education, translators' association/authority and professional translator certification. The role of translator education in professionalising the industry has been extensively reviewed in Section 2.1.3. However, as shown in Section 5.1, translator education in Singapore is not yet ready to become a strong driving force in professionalising the industry. As for the establishment of a translators' association/authority, the responses of the participants are positive. They have shown strong support for the idea of establishing a translators' association/authority in Singapore, and a strong desire to obtain professional translator certification. This means that they realise the need to regularise the industry, to protect their translator status, and possibly to professionalise translation in Singapore.

In addition, the difficulty in recruitment of participants in study also highlights the necessity for a translators' association/authority that manages a list of registered qualified. It is believed that more translators could be reached more easily if there were such a body. Through this study, it was also found that there are indeed unprofessional translators in the industry. Nine translators did not give any notification of withdrawal from the study and remained uncontactable till the end of this study. If the assignment were not for research purposes but a genuine piece of translation required by a client, their irresponsible act of not replying and not completing the assignment would cause a lot of inconvenience to the client and, at the same time, further sully the image of Singapore translators. In this regard, a formal body for translators, whether a government-led authority or an industry-led association, is expected to help elevate the standard of professionalism of translators. Such association can compel its registered members to strictly adhere to a professional code of practice and ensure that they produce works that meet the minimum quality standard.

Having said the above, any efforts in professionalisation require strong drivers. The National Translation Committee and major industry players are encouraged to work together to arrive at a professionalisation framework that can benefit the translators in Singapore. This will also help to pave Singapore's path to becoming a leading translation hub in the region.

6. CONCLUSION

Due to the unknown number of translators in Singapore and despite efforts to reach out to as many potential participants as possible, the study is unable to claim representativeness of the sample. Nevertheless, it provides insights into the overall translation quality and professionalisation of translation in Singapore.

The main aim of this study is to investigate whether translator education and bilingual profile of translators affect the quality of translation produced by Singapore translators. Despite its experimental nature, this study has revealed that translators in Singapore can produce quality translation even without going through translator education. It is also found that the more balanced bilingual translators can produce higher-quality translation than translators who are dominant in one language. Years of experience is also relevant in the sense that translators with translation experience of five years and above could produce translation of a higher quality. And overall, Singapore translators are more competent in Chinese-English translation than English-Chinese translation, which is likely due to the language use pattern in Singapore.

Generally, Singapore translators see the need to professionalise the industry. They have expressed strong support for the establishment of a translation association/authority that provides accreditation services for translators in Singapore. Many of them have also indicated their intention to obtain a professional translator certification.

The study also calls for a review of translation quality assessment in translation programmes so that it will help students to better meet the expectations of quality in the industry. Besides that, translation programmes, government agencies and industry players are also encouraged to work together in the research on translation quality, career development of translators and professionalisation of the industry.

In conclusion, although the results of the study cannot be overgeneralised to apply to the total number of Singapore translators because of its small sample size, this study offers insights into the quality of translation produced by Singapore translators and the professionalisation of the translation industry in Singapore. It is hoped that this study will inspire more research and reviews of industry practices, as well as more meaningful and beneficial discussion among local industry players, institutions and relevant authorities.

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APPENDIX 1: ETHICS REVIEW APPLICATION

School of Humanities & Social Sciences
Master of Arts in Translation and Interpretation (MTI) Programme

Nanyang
Technological University

Application for the Approval of Use of Human Participants in Research

Individuals engaged in research that uses human participants must complete this form. This application must be submitted together with a copy of the consent form (if applicable), to be reviewed by the Ethics Committee of the Master of Arts in Translation and Interpretation (MTI) Programme. The research may proceed if the ethics committee and/or faculty reviewers determine that the proposed project abides by the HSS's guidelines for ethical research. Proposals which are incomplete or in violation of these guidelines will be returned for revision.

Part I: Details of the proposed study

Name: Leong Yuan Hong

Date: 16 November 2016

Phone Contact: +65 96271143

Email:

Project title:

The role of translation education in improving translation quality in Singapore

Purpose of study:

The study aims to examine the role of translation education in improving translation quality in Singapore by comparing the quality of translation works produced by translators with education in translation and works by those without.

1. Why human participants are necessary?
Human participants are necessary because the subjects of this study are translators.
2. What is the number of participants?
20-30 translators with translation education and 20-30 translators without translation education.
3. What is the profile of the participants that you are targeting (e.g. age, ethnicity, language background, etc.)?
**Note: If your target participant is below 21 years old, parental consent is to be sought prior to the study. Be sure to include a copy of the parental consent form with this application. The student can apply for a waiver of parental consent through the Ethics Committee of the MTI Programme. This must be accompanied with justification and support by the respective Supervisor.*

For translators with translation education:

- Singaporeans or Singapore PRs who have completed primary school and secondary school education in Singapore
- Bilingual in English and Chinese
- Full-time translators, or freelance translators whose primary source of income is translation
- Graduated from undergraduate or postgraduate translation programmes

For translators without translation education:

- Singaporeans or Singapore PRs who have completed primary school and secondary school education in Singapore

- Bilingual in English and Chinese
 - Have never attended any undergraduate or postgraduate translation programmes
 - Full-time translators, or freelance translators whose primary source of income is translation
4. How will participants be recruited?
They will be recruited mainly through contacts and online translators communities such as TranslatorsCafe.com. Assistance will also be sought from UniSIM's Bachelor of Translation and Interpretation Programme Office.
5. Briefly describe how informed consent will be obtained and by whom. Be sure to include with this application a copy of the consent form you will use.

Participants will be informed of the purpose and procedure of the study before they begin. The consent form will appear on the first page of the pre-study questionnaire.
6. Does the research entail possible risk of harm and/or stress? If YES, please explain the extent of risk and steps you will take to minimise it.
No.
7. How will the confidentiality of information obtained from participants be maintained?
Participants are not required to provide their names. The completed questionnaires and translation assignments will be collected solely by the student investigator. The contact details of the participants will not be revealed to the raters. The participants will only be identified by numbers such as Participant 001.
8. What procedures will participants be exposed to? Describe the study methods including research instruments, and how their responses or behavior will be documented or recorded (i.e. by audio/video recording, computer input, use of notes, paper survey, etc.) if any. Be sure to include with this application a copy of the survey form, interview script, etc.

The study consists of three parts. For Part 1, participants will be required to answer a short questionnaire to determine if they meet the criteria to participate in the study. If they meet the criteria, they will be informed to take part in Part 2. They will receive in their email a translation assignment consisting of an English article to be translated into Chinese and a Chinese article to be translated into English. Each article is about 300-400 words. Participants will be given 8 hours to complete the assignment and are allowed to use dictionaries, the Internet and any computer-assisted translation tools. After completing the translation assignment, they will move on to Part 3 where they are required to answer a questionnaire regarding the process of their translation.

Participants should take part in the study voluntarily. A token sum of \$30 will be given to participants who complete all three parts of the study in appreciation of their voluntary participation.

A copy of this completed review form will be kept on file in the MTI office.

Ethics Form MTI Programme

9. Will the interview be transcribed? Please note: If your answer is yes, the transcription or the edited transcription should be reviewed and signed by the interviewee(s).
N/A

10. Will the interview transcription or the edited transcription be published or included in your research report as an appendix? Please note: If your answer is yes, you need to seek consent from the interviewee(s).
N/A

Part II: Declarations

I have read the ethical principles and code of conduct information in NTU IRB website and agree to abide by them. I also agree to report any substantive and relevant changes in procedures and instruments as they relate to participants to the Master of Arts in Translation and Interpretation (MTI) Programme, NTU.

- ☒ I confirm that all information submitted in this application is correct. I further agree to report to my faculty supervisor any substantive changes in procedures, materials, participants, and/or other aspects of the study that may be considered relevant to ethical concerns.
- ☒ My supervisor has reviewed and approved this application form and the use of all listed documents and any other materials associated with this study *before* they were submitted to the Ethics Committee of the MTI programme.

* Note: Failure to answer the above questions truthfully could result in disciplinary action taken against the applicant for ethics violation.

Name and Signature of Student Investigator
LEONG YUAN HONG

Name and Signature of Supervisor
ASST PROF KUO SZU-YU, ARISTA

A copy of this completed review form will be kept on file in the MTI office.

Ethics Form MTI Programme

APPENDIX 2: ETHICS REVIEW APPROVAL

RE: Ethics Review Application

Tue 11/22/2016 4:34 PM

To: #LEONG YUAN HONG# <YLEONG015@e.ntu.edu.sg>;

Cc: Arista Kuo <SYKUO@ntu.edu.sg>; Helena Gao <HELENAGAO@ntu.edu.sg>;

Dear Yuan Hong,

The ethics review committee has approved your application and you can start your project now.
Thanks!

Best Regards,
Bailey

Bailey Bian (Ms) | Assistant Manager

Master of Arts in Translation and Interpretation (MTI) | School of Humanities and Social Sciences

Nanyang Technological University | HSS-06-18, 14 Nanyang Drive, Singapore 637332

Tel: (65) 6908 1978 | Email: mti@ntu.edu.sg | Web: <http://www.mti.hss.ntu.edu.sg>

APPENDIX 3: PARTICIPANT CONSENT FORM

The role of translation education in improving translation quality in Singapore

Please read before you begin.

Project title: The role of translation education in improving translation quality in Singapore

Objectives: The study aims to examine the role of translation education in improving translation quality in Singapore by comparing the quality of translation works produced by translators with education in translation and works by those without.

Target participants: Full-time or freelance translators in Singapore.

Confidentiality: The data/content of the study will be used for research purposes only.

Risk: In this study, there is NO risk beyond that encountered in daily life.

Procedures:

Part 1:

You are required to complete a pre-study questionnaire, which will take approximately 5 minutes, to determine your suitability for the study. Only suitable participants will be contacted to take part in the subsequent parts of the study.

Part 2:

Suitable participants will be contacted via SMS and/or email to take part in Part 2, which is a translation assignment. You will be given eight (8) hours to complete an English-Chinese translation and a Chinese-English translation. The translation assignment is self-monitored. Each article is about 300 words.

Part 3:

After the completion of the translation assignment, you are required to complete a post-assignment questionnaire, which will take approximately 10 minutes to complete.

Please note that participants should take part in the study voluntarily. Those who complete ALL three parts of the study will receive a token sum of \$30 in appreciation of their voluntary participation. Payment will be made through bank transfer or cheque.

Contact:

If you have further questions regarding this study, please contact the student at yleong015@ntu.edu.sg or the supervisor of the student: Asst Prof Kuo Szu-Yu, Arista at Tel: 6790 5963/ Email: SYKuo@ntu.edu.sg.

If you have concerns or questions about research ethics of this study, please contact the MTI ethics committee at Tel: 6908 1978/ Email: MTI@ntu.edu.sg, or the NTU IRB secretariat at IRB@ntu.edu.sg.

* Required

Participant's Consent Form

I agree to take part in the study.

- ☐ Yes
- ☐ No

I have been advised that the data/content of the study will be used for research purposes only.

- ☐ Yes
- ☐ No

I consent to the publication of the study results so long as they are presented in a manner that does not identify me.

- ☐ Yes
- ☐ No

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason and without penalty.

- ☐ Yes
- ☐ No

Email *

Contact No. *

APPENDIX 4: PRE-STUDY QUESTIONNAIRE

Pre-study Questionnaire

This is Part 1 of the study. Please answer the following questions truthfully.

1. Did you complete your primary school AND secondary school education in Singapore?

- ☐ Yes
- ☐ No

2. Do you work as a translator in Singapore?

- ☐ Yes. I am a full-time translator.
- ☐ Yes. I am a freelance translator and translation is my primary source of income.
- ☐ Yes. I am a freelance translator but translation is not my primary source of income.
- ☐ No

3. How many years of translation experience do you have?

4. Do you do Chinese-English AND English-Chinese translation?

- ☐ Yes
- ☐ No. I only do Chinese-English translation.
- ☐ No. I only do English-Chinese translation.

5. What types of documents do you usually translate? You may choose more than one.

- ☐ General
- ☐ Literary
- ☐ Legal
- ☐ Medical
- ☐ Technology
- ☐ Other:

6. Do you send your translation for vetting, editing or proofreading before delivering your translation to the client?

- ☐ Always
- ☐ Sometimes
- ☐ No. I work independently.

7. Do you think you are effectively bilingual?

- ☐ Yes. I am equally proficient in English and Chinese.
- ☐ No. I think my English is better than my Chinese.
- ☐ No. I think my Chinese is better than my English.

8. (i) What English language qualification do you have? Please state the name and grade of your highest language qualification. (e.g. A-level GP: A1 / IELTS: 8.0, etc.)

(ii) What Chinese language qualification do you have? Please state the name and grade of your highest language qualification. (e.g. O-level: A2 / HSK Level 3: A, etc.)

9. What is your highest education qualification?

- ☐ Secondary school
- ☐ Junior college/Polytechnic
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ PhD
- ☐ Other :

10. (i) Are you a graduate of any translation programme of any tertiary education institution?

- ☐ Yes
- ☐ No

(ii) If the above answer is 'Yes', please state the name of the programme and institution, length of programme and year of graduation (e.g. BA Translation and Interpretation, UniSIM, 4 years, 2012).

(iii) If the above answer is 'No', have you ever considered enrolling into a translation programme offered by a tertiary education institution?

- ☐ Yes
- ☐ No

11. Do you know that the following translation programmes are currently offered by universities in Singapore? You may choose more than one.

- ☐ Bachelor of Translation and Interpretation, UniSIM
- ☐ Master of Arts in Translation and Interpretation, NTU

12. (i) Do you have any professional translator certification?

- ☐ Yes
- ☐ No

(ii) If the above answer is 'Yes', please state the name of the accreditation and the year obtained (e.g. NAATI, 2014)

(ii) If the above answer is 'No', have you ever considered getting a translator certification?

- ☐ Yes
- ☐ No

13. Do you think that there is a need to establish a translators' association/authority in Singapore to provide accreditation for translators?

- ☐ Yes
- ☐ No

14. To be called a professional translator in Singapore, one should be a translator who: (you may choose more than one answer)

- ☐ is effectively bilingual
- ☐ works full-time as a translator
- ☐ has a diploma/degree in translation
- ☐ has a diploma/degree in English/Chinese language
- ☐ has a diploma/degree in any field
- ☐ is accredited/has translator certification
- ☐ has worked many years in the translation industry
- ☐ can work independently without the help of vetter, editor or proof reader
- ☐ has his/her own translation company
- ☐ Other:

15. A quality translation is one that: (you may choose more than one answer)

- ☐ is accurate (Correct transfer of information from the source text to the target text)
- ☐ has no mechanical errors such as spelling, typography, grammar, etc.
- ☐ uses an appropriate writing style for the purpose of the text
- ☐ requires no editing by the client (ready to be used)
- ☐ has been proof-read and edited before delivery to client
- ☐ reads as if it is originally written by a native speaker of the target language
- ☐ conforms to the client's requirements
- ☐ takes audience and purpose into account
- ☐ is a "certified translation"
- ☐ Other:

End of Questionnaire. Thank you.

Thank you for your time. Suitable participants will be contacted for Part 2 of the study in 2-3 days.

APPENDIX 5: CONTENT LICENSES FOR USE OF ARTICLES

Chinese article:

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Licensee's Tel. No. : 96271143 **Licensee's Fax No** : -

Licensee's Email : yleong015@e.ntu.edu.sg

Licensee's URL : -

Billing Name :
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- ☒ Others To be used as translation test material for a Master's dissertation research

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We agree to the terms and conditions attached.

Leong Yuan Hong

(Signed for and on behalf of Leong Yuan Hong)

Name : Leong Yuan Hong

Designation : N/A

Date : 16 Nov 2016

Telephone : 96271143

Fax : -

Email : yleong015@e.ntu.edu.sg

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11. This Agreement may be terminated:
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 - b. by SPH forthwith at any time by serving written notice on the Licensee. Where the Agreement is terminated under this Clause 11(b), the Licensee shall be entitled to a refund of any Fees paid on a pro-rata basis based on the number of days of the Licence Period before termination.

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社论：全方位看待养老需求

2016年10月20日 星期四 03:30 AM

来自 / 联合早报

社论

2016年10月20日

一项近千人参与的大型调查发现，78%的受访者希望能独立或与伴侣，在自己的家中安享晚年。近一半的受访者则不介意入住疗养院，而当中的六成希望能住在疗养院的单人或双人房，以便有更多隐私。本地人口的老龄化大势，意味着社会必须就此未雨绸缪。此前的另一份报告则指出，本地缺乏多样化的养老护理设施，国人除了养老院，几乎没有其他选择。类似的讨论所引起的社会关注无疑是必要的，但与此同时也应当意识到，人口结构老龄化是个动态现象，一些当前的情况假设与需要，未必就适用于未来，也不宜一刀切解决。

养老本身是个复杂的社会课题，必须考虑到当事人的经济条件、健康状况、家庭环境等众多因素；同时也不能忽视社会观念及家庭结构的变化。通常一提到养老问题，一般人大都会联想到孤苦无依、体弱多病的老人。这群社会的弱势群体当然存在，也必须得到妥善的照顾。可是随着教育的普及、社会经济环境的改善，步入老龄的不同世代，或许也面对不一样的养老需求。因此，看待未来的养老需要，视角必须更全面，才不至于挂一漏万，甚至杞人忧天。

上述大型调查发现近八成的人希望原地养老，反映的便是容易被忽视的养老面向——情感因素。养老固然涉及医疗资源、硬体设施、人力成本等冷冰冰的数字计算，可是课题的主体——乐龄者——却是有多重需求的人，特别是情感上的需要。在探讨养老问题时，这个因素有必要获得更多重视。随着选择单身、不育的人增加，以及孩子出国留学后在国外发展事业，甚至落地生根的现象普及，在10年后步入老龄的群体，当中不少将是教育程度高、经济独立、身体健康但可能缺少家庭温暖的人士。留自己熟悉的居家安度晚年，因而成为了他们情感上的关键依托。这显然不是增设多元化养老设施所能解决的。

此外，对于“老龄”以及“退休”的概念，也不断地在改变。眼下用65岁作为划分老龄的界线，并据此采用的人口赡养比例——工作年龄人口对比退休年龄人口——所勾勒的未来图像让人难以乐观，因为生育率不足以替代人口的老龄化，导致赡养比例呈急速下降趋势。可是，赡养比例的假设并非不无盲点。即便是在今天，65岁还算是能够继续贡献社会的壮年。当未来的医疗科技越来越发达，人均寿命以及具备工作能力的年龄都将更为延长。所以人口赡养比例的定义，在今后或许得有所调整，才能真正反映实际的状况。

当然，生育率不足的长期隐患毕竟无法忽视，社会对人口老龄化的大趋势，还是应当有所准备。当前关于养老准备的讨论，隐含着某种莫名的焦虑。尽管政府的社会拨款已经在增加，相信不少国人对于能否过上有尊严的退休养老生活，仍然没有充分的把握。养老所需要的成本，如果主要交由市场决定，或许会创造更多元的养老配套，但也可能让部分人士感到难以负担；如果根据建立包容社会的理想，解除国人对养老的后顾之忧，则对于财税分配的检讨，现在就必须尽早展开。

“使老有所终，壮有所用，幼有所长”不必然是乌托邦，让绝大部分人过上有尊严的退休生活，也不是绝对不可企及的梦想。家庭必须也应当是养老最理想的组织形式，缺乏亲情的晚年，无论如何还是让人遗憾的。对于那些缺乏家庭照顾，本身又因为健康或失智而无法自理的老人，无论是用福利制度还是慈善组织的形式，国家及社会还是得介入。未来的养老方案如何，终究是一种基于人生价值的集体抉

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APPENDIX 6: TRANSLATION ASSIGNMENT

TRANSLATION ASSIGNMENT

Thank you for taking part in the study. For this part of study, you are required to complete a translation assignment.

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE YOU BEGIN.

1. This paper contains two articles for your translation. Please translate Article 1 into Chinese and Article 2 into English.
2. For each article, you are given a scenario under which a translation is required by your “client”. You should translate to the best of your ability and the translations should be a final product that you can deliver to your client.
3. You should complete the translation in **EIGHT (8)** hours. In Part 3 of the study (Post-assignment Questionnaire), you will be required to answer questions regarding your translation process, including the actual time spent on translating each article. Part 3 of the study will be given to you after this assignment is sent back.
4. You may use any resources such as dictionaries (online or offline), search engines and computer-assisted translation tools (such as Trados) to complete the translations. However, your translation must be completed independently without consulting others including translators, editors or proof-readers.
5. When you save your translation, please overwrite the source file and save under the same file name.
6. Please **do not** reproduce or distribute the articles in any way.

ARTICLE 1

Please translate the following into Chinese. Your client is a Singaporean investor who intends to venture into the private education business.

Private education institutions play a role in complementing the public university sector by injecting greater course diversity and supporting workforce development. However, the exponential growth of the sector - from 305 private schools in 1997 to 1,200 in 2007 - had resulted in a highly uneven spread of academic and governance standards among the institutions.

More than 70,000 Singaporeans chase degrees and diplomas privately, bearing costs of between \$20,000 and \$40,000 a year for degree courses. But a broad-based survey showed that many of them lagged far behind their peers from traditional public universities in the job market. Not only do private school graduates find it harder to land jobs but, on average, they also command noticeably lower starting salaries. By 2020, up to half of each cohort could get a degree education at publicly funded institutes, with courses subsidised by up to 75 per cent by the Government. Private students aspiring to make good struggle financially and might have their hopes dashed later. This represents a woeful waste of private resources and an unacceptable mismatch of training and skills required by the economy.

It is vital for private schools to dovetail their training with the national movement to promote evolving job-oriented skills. As smaller players, they must focus on a niche and be good at it. With programme quality truly assured, it would be worth studying how private students can be better supported. Private schools with different business models have a part to play too in giving students of all ages a shot at a future. At the same time, students themselves should still exercise due diligence by researching and assessing the suitability of the various education pathways available.

(280 words)

(Adapted from an article in The Straits Times © Singapore Press Holdings Limited.
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* Please omit this line in your translation

译文:

ARTICLE 2

Please translate the following into English. Your client is a charitable organisation in Singapore which may publish the translation in their monthly newsletter.

新加坡人口老龄化意味着社会须就此未雨绸缪。尽管政府的社会拨款已经在增加，但不少国人对于能否过上有尊严的退休养老生活，仍然没有充分的把握。

养老固然涉及医疗设施、人力成本等冷冰冰的数字计算，可是这个课题的主体——乐龄者——却是有多重需求的人，特别是情感上的。随着选择单身、不生育的人增加，以及孩子出国后选择不回来的现象普及，那些在 10 年后步入老龄的群体不少是教育程度高、经济独立，但可能缺少家庭温暖的人。留在自己熟悉的居家安度晚年因而成为他们的情感依托。这显然不是增设多元化养老设施所能解决的。

家庭必须也应当是养老最理想的组织形式。但对于那些缺乏家庭照顾又因健康而无法自理的老人，国家及社会还是得介入。因此，政府应全面探讨养老问题，适时对养老方案作出调整。

(299 字)

(Adapted from an article in Lianhe Zaobao © Singapore Press Holdings Limited.
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* Please omit this line in your translation

Translation:

APPENDIX 7: POST-TRANSLATION QUESTIONNAIRE

Post-translation Questionnaire - The role of translation education in improving translation quality in Singapore

Thank you for completing the translation assignment.

You will receive a token sum of \$30 in appreciation of your participation after the following questionnaire is completed.

*** Required**

Email *

Contact No. *

1. Did you complete the two translations independently without consulting others (i.e. vetter, proofreader or editor)?

- ☐ Yes
- ☐ No

2. How much time did you actually spend on completing the translation of Article 1 (English-Chinese translation)? (e.g. 3 hours 40 minutes)

3. How much time did you actually spend on completing the translation of Article 2 (Chinese-English translation)? (e.g. 3 hours 40 minutes)

4. Did you use any of the following in the process of your translation? Please select where applicable.

- ☐ Dictionaries (hard copy/offline electronic dictionaries).
- ☐ Online dictionaries
- ☐ Google Translate or other web-based machine translators
- ☐ Search engines
- ☐ Computer-assisted translation (CAT) tools (e.g. Trados, etc.)
- ☐ I did not use any tools in the process
- ☐ Other:

5. Please rate the difficulty level of Article 1 (English-Chinese translation) to you.

Very Easy

Very Hard

1	2	3	4	5

6. Please rate the difficulty level of Article 2 (Chinese-English translation) to you.

Very Easy

Very Hard

7. For Article 1 (English-Chinese translation) , if the assignment is not urgent, how much do you usually charge and how do you arrive at the figure ? (e.g. by no. of words, \$0.05 x 280 words = \$14)

8. For Article 2 (Chinese-English translation), if the assignment is not urgent, how much do you usually charge and how do you arrive at the figure? (e.g. 299 words, less than 500 words fixed rate \$50)

For the following questions, please answer Question 9 if you are a translator with translation education, and Question 10 if you are a translator without translation education.

9. Please answer this question ONLY IF you are a translator with translation education.

(i) Do you agree that you were able to translate in the manner demonstrated in the translation assignment because of your translation education?

- ☐ I fully agree.
- ☐ I partially agree.
- ☐ I disagree.

(ii) Please state your reasons for your answer for the above question.

(iii) What was important to you when producing the translation? You may choose more than one answer.

- ☐ Knowing the client's intended usage of the translation
- ☐ Understanding the source text
- ☐ Using the correct terms
- ☐ Ensuring that the translation has no mechanical errors such as spelling, typography, grammar, etc.
- ☐ Ensuring that all information had been transferred to the target text
- ☐ Ensuring that the style of the translation fit the text type (i.e. journalistic article)
- ☐ Making the translation read as if it is originally written by a native speaker of the target language
- ☐ Other:

(iv) What did you learn from your translation programme? You may choose more than one answer.

- ☐ Translation theories
- ☐ Translation techniques
- ☐ Language and linguistics studies
- ☐ Discourse analysis
- ☐ Translation of different types of documents such as literary, business, legal, etc.
- ☐ Translation using technology
- ☐ Code of Ethics
- ☐ Cross-cultural communication
- ☐ Localisation
- ☐ Proofreading and editing
- ☐ I can't remember as none of them is useful
- ☐ Other:

10. Please answer this question ONLY IF you are a translator without translation education.

(i) Do you think you would have translated the articles differently if you had received translation education?

- ☐ Yes
- ☐ No
- ☐ I don't know

(ii) What was important to you when producing the translation? You may choose more than one answer.

- ☐ Knowing the client's intended usage of the translation
- ☐ Understanding the source text
- ☐ Using the correct terms
- ☐ Ensuring that the translation has no mechanical errors such as spelling, typography, grammar, etc.
- ☐ Ensuring that all information had been transferred to the target text
- ☐ Ensuring that the style of the translation fit the text type (i.e. journalistic article)
- ☐ Making the translation read as if it is originally written by a native speaker of the target language
- ☐ Other:

(iii) What do you think students in translation programme learn? You may choose more than one answer.

- ☐ Translation theories
- ☐ Translation techniques
- ☐ Language and linguistics studies
- ☐ Discourse analysis
- ☐ Translation of different types of documents such as literary, business, legal, etc.
- ☐ Translation using technology
- ☐ Code of Ethics
- ☐ Cross-cultural communication
- ☐ Localisation
- ☐ Proofreading and editing
- ☐ I don't know
- ☐ Other:

The next question is the last question of this questionnaire.

11. Could we contact you should there be further questions regarding your answers and/or translations? *

- ☐ Yes
- ☐ No

THANK YOU. THIS IS THE END OF THE QUESTIONNAIRE.

You will be contacted shortly for payment of the \$30 (bank transfer or cheque only).

APPENDIX 8: PAYMENT FOR PARTICIPATION

Payment for Participation.xlsx - Microsoft Excel non-commercial use

The screenshot shows a Microsoft Excel spreadsheet with the following content:

	A	B	C	D	E	F	G	H	I	J
1	You will receive a token sum of \$30 in appreciation of your participation in a study titled "The Role of Translation Education in Improving Translation Quality in Singapore". Payment will be made in 2-3 working days after the completed form is sent back to the student investigator.									
2										
3	For payment by bank transfer, please provide:									
4	Bank:									
5	Acct No.:									
6										
7	For payment by cheque, please provide:									
8	Full name:									
9	Address:									
10	**Please note that we will not be held liable should the cheque be lost or stolen in the mail.									
11										
12	If you are not accepting the token sum of \$30, please complete the following:									
13	I completed the study voluntarily and I am not accepting the payment of \$30 which has been offered to me by the student investigator.									
14	Email:									
15	Contact No.:									
16										

The Excel ribbon shows the 'Home' tab with the following groups visible:

- Font:** Calibri, 11, Bold, Italic, Underline, Text Color, Background Color, Font Face, Font Size, Font Color, Paragraph.
- Paragraph:** Bullets, Numbering, Indentation, Orientation, Text Alignment, Line and Paragraph Spacing, Paragraph Style, Paragraph Direction.
- Styles:** Conditional Formatting, Format as Table, Cell Styles.
- Cells:** Insert, Delete, Format, Cells.
- Editing:** Find & Select, Filter, Sort & Filter, Filter, Sort & Filter, Filter, Sort & Filter.

APPENDIX 9: SCORING SHEETS

EC-0001		ACCURACY The target text does not accurately reflect the source text.			FLUENCY Issues related to the form or content of a text, irrespective as to whether it is a translation or not.			STYLE The text has stylistic problems.			TERMINOLOGY All issues specifically related to use of domain- or organization-specific terminology.		
	Source-language Text	Target-language Text			Minor	Major	Critical	Minor	Major	Critical	Minor	Major	Critical
1	Private education institutions play a role in complementing the public university sector by injecting greater course diversity and supporting workforce development.												
2	However, the exponential growth of the sector - from 305 private schools in 1997 to 1,200 in 2007 - had resulted in a highly uneven spread of academic and governance standards among the institutions.												
3	More than 70,000 Singaporeans chase degrees and diplomas privately, bearing costs of between \$20,000 and \$40,000 a year for degree courses.												
4	But a broad-based survey showed that many of them lagged far behind their peers from traditional public universities in the job market.												
5	Not only do private school graduates find it harder to land jobs but, on average, they also command noticeably lower starting salaries.												
6	By 2020, up to half of each cohort could get a degree education at publicly funded institutes, with courses subsidised by up to 75 per cent by the Government.												
7	Private students aspiring to make good struggle financially and might have their hopes dashed later.												
8	This represents a woeful waste of private resources and an unacceptable mismatch of training and skills required by the economy.												
9	It is vital for private schools to dovetail their training with the national movement to promote evolving job-oriented skills.												
10	As smaller players, they must focus on a niche and be good at it.												
11	With programme quality truly assured, it would be worth studying how private students can be better supported.												
12	Private schools with different business models have a part to play too in giving students of all ages a shot at a future.												
13	At the same time, students themselves should still exercise due diligence by researching and assessing the suitability of the various education pathways available.												
TOTAL		0	0	0	0	0	0	0	0	0	0	0	0
PENALTY SCORE		0.00			0.00			0.00			0.00		
FINAL SCORE								100.00					

CE-0001			ACCURACY The target text does not accurately reflect the source text.			FLUENCY Issues related to the form or content of a text, irrespective as to whether it is a translation or not.			STYLE The text has stylistic problems.			TERMINOLOGY All issues specifically related to use of domain- or organization-specific terminology.		
	Source-language Text	Target-language Text	Minor	Major	Critical	Minor	Major	Critical	Minor	Major	Critical	Minor	Major	Critical
1	新加坡人口老龄化意味着社会须就此未雨绸缪。													
2	尽管政府的社会拨款已经在增加，但不少国人对于能否过上尊严的退休养老生活，仍然没有充分的把握。													
3	养老固然涉及医疗设施、人力成本等冷冰冰的数字计算，可是这个课题的主体——乐龄者——却是有多重需求的人，特别是情感上的。													
4	随着选择单身、不生育的人增加，以及孩子出国后选择不回来的现象普及，那些在10年后步入老龄的群体不少是教育程度高、经济独立，但可能缺少家庭温暖的人。													
5	留在自己熟悉的居家安度晚年因而成为他们的情感依托。													
6	这显然不是增设多元化养老设施所能解决的。													
7	家庭必须也应当是养老最理想的组织形式。													
8	但对于那些缺乏家庭照顾又因健康而无法自理的老人，国家及社会还是得介入。													
9	因此，政府应全面探讨养老问题，适时对养老方案作出调整。													
TOTAL			0	0	0	0	0	0	0	0	0	0	0	0
PENALTY SCORE			0.00			0.00			0.00			0.00		
									FINAL SCORE			100.00		

APPENDIX 10: DESCRIPTIONS OF TRANSLATION ISSUES

Issues	Description	Example
1. ACCURACY	The target text does not accurately reflect the source text	
(i) Addition	The target text includes text not present in the source.	A translation includes portions of another translation that were inadvertently pasted into the document.
(ii) Mistranslation	The target content does not accurately represent the source content.	A source text states that a medicine should <u>not</u> be administered in doses greater than 200 mg, but the translation states that it should be administered in doses greater than 200 mg (i.e., negation has been omitted).
o Ambiguous translation	The translation process has introduced ambiguity.	A text that means that something is highly recommended is translated as "I cannot recommend this too highly." (The meaning can be that the speaker cannot make a good recommendation or that it is highly recommended.)
o Overly literal	The translation is overly literal.	"Put yourself in my shoes" has been translated as "把你自己的鞋子" rather than with the idiomatic meaning of "从我的角度想一想".
o Over-translation	The target text is more specific than the source text.	The source text uses words that refer to military officers in general but the target text refers to a specific type of military officer
o Under-translation	The target text is less specific than the source text.	The source text uses words that refer to a specific type of military officer but the target text refers to military officers in general
(iii) Omission	Content is missing from the translation that is present in the source.	A paragraph/sentence/word present in the source is missing in the translation.
(iv) Untranslated	Content that should have been translated has been left untranslated.	A sentence/phrase in an English document translated into Chinese is left in English.
2. FLUENCY	Issues related to the form or content of a text, irrespective as to whether it is a translation or not.	
(i) Unclear reference	The text uses relative pronouns or other referential mechanisms that are unclear as to their reference.	A text reads "After completing this, move to the next step," but there are a number of possible referents for this in the text.
(ii) Coherence	The text is not coherent.	While individual sentences of the text are all perfectly fluent, the text as a whole does not make sense and is inconsistent with itself.
(iii) Cohesion	Portions of the text needed to connect it into an understandable whole (e.g., reference, substitution, ellipsis, conjunction, and lexical cohesion) are missing or incorrect.	An English text is missing conjunctions and particles (e.g., "thus", "therefore", "but", and "however") needed for the logic of the text to be clear.
(iv) Grammar	Issues related to the grammar or syntax of the text, other than spelling and orthography.	An English text reads "The man was seeing <i>her</i> wife."
(v) Spelling	Issues related to spelling of words	Including capitalisation For Chinese: 遇到逆意(境)时, 我们必须勇敢面对。
(vi) Typography	Issues related to the mechanical presentation of text. This category should be used for any typographical errors other than spelling.	- A text uses punctuation incorrectly. - Unpaired quote marks or brackets (e.g. the closing parenthesis is omitted) - Extra space between words
(vii) Unintelligible	The exact nature of the error cannot be determined. Indicates a major break down in fluency.	Text appears in a translation that cannot be understood at all.
3. STYLE	The text has stylistic problems.	
(i) Register	The text uses a level of formality higher or lower than required by the specifications or general language conventions.	A news article uses contractions, colloquialisms, and expressions characteristic of spoken rather than written language, and those comes across as less serious than intended.
(ii) Inconsistent style	Style is inconsistent within a text.	One part of a text is written in a light and "terse" style while other sections are written in a more wordy style.
(iii) Unidiomatic	The content is grammatical, but not idiomatic.	"We thanked him with heart" where "with heart" is an understandable, but non-idiomatic rendering, better stated as "heartily". It is distinct from "Overly literal" above which is a mistranslation.
4. TERMINOLOGY	All issues specifically related to use of domain- or organization-specific terminology.	Do not use this issue if a text is simply mistranslated. For example, if a text translates <i>[river]</i> <i>bank</i> into 银行 instead of 河畔, use "Mistranslation" instead.
(i) Inconsistent use of terminology	Terminology is used in an inconsistent manner within the text.	Multiple translation of same term. The text refers to a component as "衣橱" "衣柜" "橱".
(ii) Inconsistent with domain	A term is used contrary to general domain expectations.	A financial text is translated using "deduct" instead of "debit". Although conceptually these could be synonyms in general language, "deduct" violated domain conventions.

APPENDIX 11: LEVELS OF SEVERITY OF ERRORS

Level of Severity	Description
Minor	Minor issues are issues that do not impact usability or understandability of the content. For example, if an extra space appears after a full stop, this may be considered an error, but does not render the text difficult to use or problematic (even if it should be corrected). If the typical reader/user is able to correct the error reliably and it does not impact the usability of the content, it SHOULD be classified as minor. Since minor errors do not impact the usability of the content, resolution of them is at the discretion of those responsible for the content.
Major	Major issues are issues that impact usability or understandability of the content but which do not render it unusable. For example, a misspelled word may require extra effort for the reader to understand the intended meaning, but do not make it impossible. If an error cannot be reliably corrected by the reader/user (e.g., the intended meaning is not clear) but it does not render the content unfit for purpose, it SHOULD be categorized as major. While it is generally advisable to fix major errors prior to use of the content, the inclusion of major errors may not, by themselves, render the text unfit for purpose.
Critical	Critical issues are issues that render the content unfit for use. For example, a particularly bad grammatical error that changes the meaning of the text would be considered critical. If the error prevents the reader/user from using the content as intended or if it presents incorrect information that could result in harm to the user it MUST be categorized as critical. In general, critical errors have to be fixed prior to use of the text since even a single critical error is likely to cause serious problems.

APPENDIX 12: RESPONSES TO PRE-STUDY QUESTIONNAIRE

Please refer to the folder “Appendix 12” in “CD-LeongYuanHong-MTI2017Dissertation” for a softcopy of the Excel file recording the responses of the participants to the pre-study questionnaire.

APPENDIX 13: TRANSLATIONS OF PARTICIPANTS

Please refer to the folder titled “Appendix 13” in “CD-LeongYuanHong-MTI2017Dissertation” for softcopies of all the translations of participants.

APPENDIX 14: MARKED SCORING SHEETS

Please refer to the folder titled “Appendix 14” in “CD-LeongYuanHong-MTI2017Dissertation” for marked scoring sheets by Rater 1 and Rater 2.

APPENDIX 15: TRANSLATION SCORES OF PARTICIPANTS

Participant	E-C			C-E		
	Rater 1	Rater 2	Average	Rater 1	Rater 2	Average
A1	81.82	82.21	82.02	97.82	97.82	97.82
A2	70.45	71.46	70.95	92.83	92.83	92.83
A3	85.71	83.54	84.62	32.77	31.07	31.92
A4	65.59	66.54	66.06	75.68	74.13	74.90
A5	90.63	92.54	91.59	64.85	62.34	63.60
A6	85.37	84.97	85.17	39.27	42.92	41.10
A7	64.74	68.38	66.56	11.59	15.85	13.72
A8	48.17	45.33	46.75	63.68	61.69	62.69
A9	66.13	63.59	64.86	55.56	55.56	55.56
A10	40.18	38.62	39.40	71.77	73.68	72.73
A11	-39.92	-41.39	-40.65	64.86	62.16	63.51
A12	-60.56	-59.15	-59.86	-159.09	-157.14	-158.12
B1	95.58	94.42	95.00	81.74	82.61	82.17
B2	24.39	27.37	25.88	37.29	38.56	37.93
B3	86.96	84.58	85.77	86.67	88.21	87.44
B4	82.25	81.63	81.94	82.02	83.33	82.68
B5	31.92	31.29	31.61	72.63	70.53	71.58
B6	88.49	90.07	89.28	82.66	83.24	82.95
B7	90.80	89.16	89.98	91.71	90.24	90.98
B8	-24.69	-21.34	-23.01	58.95	56.77	57.86
B9	94.17	95.41	94.79	81.50	79.74	80.62
B10	92.86	94.74	93.80	87.19	87.60	87.40
B11	67.02	66.39	66.70	69.83	70.69	70.26
B12	26.57	27.56	27.07	61.39	60.89	61.14

APPENDIX 16: RESPONSES TO POST-TRANSLATION QUESTIONNAIRE

Please refer to the folder “Appendix 16” in “CD-LeongYuanHong-MTI2017Dissertation” for a softcopy of the Excel file recording the responses of the participants to the post-translation questionnaire.

DECLARATION OF AUTHORSHIP

Name	Leong Yuan Hong
Matriculation No	G1503558F
Course Code	TI6301
Course Title	Dissertation
Supervisor	Assistant Professor Arista Szu-Yu Kuo
Submission Date	1 March 2017

Plagiarism and Collusion

Plagiarism: to use or pass off as one's own, the writings or ideas of another without acknowledging or crediting the source from which the ideas are taken.

Collusion: submitting an assignment, project or report completed by another person and passing it off as one's own (as defined in the NTU Honour Code

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I understand the nature of plagiarism to include the reproduction of someone else's words, ideas or findings and presenting them as my own without proper acknowledgement.

I understand that there are many forms of plagiarism which include direct copying or paraphrasing from someone else's published work (either electronic or hard copy) without acknowledging the source; using facts, information and ideas derived from a source without acknowledgement; producing assignments (required to be independent) in collaboration with and/or using the work of other people; and assisting another person to commit an act of plagiarism.

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Keep a copy of the Assignment

Be sure to make a copy of your work. If you have submitted your assignment electronically, also make a backup copy.

Declaration

I declare that this assignment is my own work, unless otherwise referenced, as defined by the NTU policy on plagiarism. I have read the NTU Honour Code and Pledge.

Signed Guanhong Date 1 March 2017