The Impact of Source Text Trimming in Indonesian-English Translation of Academic Manuscripts

Yan Mujiyanto[1](*)

[1] English Language Education, Pascasarjana, Universitas Negeri Semarang, Semarang, Indonesia.
(*)✉ (E-mail) yanmujiyanto@mail.unnes.ac.id

Abstract

Academic manuscripts in Indonesian often contain specious features like circumlocutory patterns, non-compliance with the standard of text formatting, and misuse of appropriate linguistic elements. Such issues may cause the translation of the manuscripts as Source Texts to result in writings in English as Target Texts that fail to meet certain requirements of international publication. To facilitate Indonesian-English rendering for qualified Target Texts it is necessary to initially treat the Source Texts through a trimming process, that is a process of making the Source Texts tidier to make them physically prepared for inter-lingual rendering. This paper aims to explain the ways in which source texts are trimmed prior to their translation to English. Ten manuscripts are analyzed and trimmed for effective language uses. Then, the trimmed texts along with their originals are rendered to English employing *Google Translate*. The data for this research are linguistic elements found in both translations. Comparison between the translation of the trimmed texts and their originals found that the quality (including accuracy, readability, and naturalness) of the former is higher than the latter. In other words, trimming makes the Source Texts more ready for rendering so that it improves the translation quality of the academic manuscripts.

Keywords: acceptability, accuracy, manuscript, naturalness, trimming.

Introduction

Since several decades ago, mechanical translation has been present among translation experts and practitioners. This type of translation is supported by a number of online translation machines and such machines as a grammar checker, spell checkers, dictionaries, thesauruses, plagiarism checker, etc. both online and manually. The presence of such devices makes the translator face two choices: keeping translating manually or using machine translator services; each has its own strengths and disadvantages. However, the facilities provided by the latter are so promising that the temptation to implement them for professional rendering is unavoidable.

Each language has a number of unique extratextual and intratextual features. Such language features can be the same as or different from those of other languages. Similarities in features of both languages certainly facilitate the rendering process, while differences potentially inhibit it. Therefore, features that include linguistic, social, cultural, economic, textural characteristics, and so on can be the determinants of the success or failure of translation practices in both manual and mechanical rendering.

In order to ensure the achievement of certain types of equivalence and avoid shifts in a translation process, a number of experts and translation practitioners propose the employment of stages in the translation process. Nida & Taber (1974/1982) introduce three phases of translation practice, i.e. source text analysis, language transfer, and text restructuring in the target language. Through the so-called, the Variational Approach, Hewson & Martin (1991) elaborate the three phases by adding production

aspects of interlinguistic homologies, cultural equations, and socio-cultural/economic parameters so that the selection of meaning variations in the process can reach a certain level of equivalence. Hatim & Mason (1990; 1997) propose the involvement of register dimensions which cover interpersonal, ideational, and textual metafunctions as well as pragma-semiotic aspects which include intertextuality, intentionality, and situationality. Other translation experts introducing such phases in translation process, among other things, include Noord (1991; 1997), Larson (1984/1997), Newmark (1988), Snell-Hornby (1988), Bell (1991), Gentzler (1993), Venuti (2000), Grego (2010), Munday (2012; 2014), and Zlateva, (2010). Whatever the translation model is applied in the translation practice, the process of rendering, in turn, is a process of semantic and pragmatic or functional approximation between SL and TL (Mujiyanto, 2018).

No matter which translation model is employed in translation practice, it is unavoidable to consider the first phase of the model which includes analysis of the surface structure in terms of the grammatical relationships and the meanings of the words and combinations of words. This idea is renewed by Nord (2005; also see Tyler 2016) by considering the analysis in terms of extratextual and intratextual factors. While the former includes a number of variables beyond language form as well as function, the latter covers (1) the subject matter, i.e. whether the text requires any special terminology or background knowledge including cultural or technical aspects; (2) the text organization including chapter type, long or short paragraph, and any special features of presentation; (3) the use of non-verbal elements including the function of tables, diagrams or figures; (4) characterization of the vocabulary including the use of technical or colloquial vocabulary, collocations, idioms, keywords, words for particular effects, acronyms or abbreviations, neologisms, particular lexical fields; (5) the features of the sentence structure including the use of long or short sentences, simple or complex ones; (6) the stylistic features including the use of journalistic, rambling, punchy, turgid or circuitous words to describe writing style; (7) the suprasegmental features including the ways the text is formatted.

In terms of register analysis, Newmark (1988, p.14) distinguishes text register in a range from officialese to taboo. Within the range, he exposes official, formal, neutral, informal, colloquial, and slang register. Meanwhile, Colina (2015) classifies the register of a source text into frozen, formal, consultative, casual, and intimate.

Text analysis merely includes insignificant actions to make the text more viable for qualified translation. It seems that people take it for granted that any text is written in accordance with ideal language functions so that they tend to ignore the possibility that such functions are deviated resulting in misunderstanding or even abusing meanings of the source language text. If this assumption turns out to be true, then it is likely that such text rendering will potentially yield inaccurate, unreadable, or even unnatural target text. In order to minimize such potential, Larson (1984/1997) introduces the term exegesis which is referred to as "the process of discovering the meaning of the source language text which is to be translated"(p. 48). According to this expert, the main purpose of this particular process is

"to determine the meaning which is to be communicated in the receptor language text ... using all available tools to determine the content of the source language message, the related communication situation matters, and all other factors ... in order to produce an equivalent translation. (p. 48)

The important steps that need to be taken to realize the intention conveyed by Larson are to apply the trimming process, namely a process of making the Source Text tidier to make them physically prepared for interlingual rendering. This process aims to avoid various deviations or misuses, including structural, semantic, and socio-cultural/economic ones, in the rendering process employing translation machines such as DeepL Translator, Google Translate, SDLTrados, and SYSTRAN. If the source texts to be trimmed are scientific work in the form of manuscripts that are to be sent for publication in reputable international journals, then of the seven intratextual features proposed by

Nord (1985), the main features that need special attention are the use of vocabulary, grammatical structure, and style or rhetoric, besides subject matter, text organization, and non-verbal elements.

Studies on source text analysis have been conducted by experts and practitioners in translation studies and practices. Boukhaffa (2018), for instance, introduces a model of text analysis to improve the outcome of translation memory. Troqe & Marchan (2017) study text analysis, fieldwork, survey in news translation while Rossetti & Gaspari (2017) conduct a pilot study of trainee translators' perceptions of difficulty and time effectiveness. They focus their attention on modeling the analysis of translation memory use and post-editing of raw machine translation output. Other studies focusing attention on text analysis for the purpose of interlingual rendering include Munday (2014) who discusses the relationship between text analysis and translation and Lennon (2014) who introduces the roles of machine translation in matching two different cultures. Dicerto (2018a) edits a book on the relationship between pragmatics and translation in which she introduces a new model for source text analysis in translation (Dicerto, 2018b), proposes analysing multimodal source texts for translation (Dicerto, 2018c), and applies the model of multimodal source text analysis (Dicerto, 2018d).

This study aims to (1) explain the process of source texts trimming prior to their translation to English; (2) compare the English translations of the original and the trimmed texts in order to show the impact of the trimming process on the texts as a result of googling them. As stated in the abstract, scientific manuscripts in Indonesian often containing spacious features, non-compliance with the standard of text formatting, and misuse of appropriate linguistic elements presumably need to be trimmed prior to their translation to make their translations fulfill the general requirements of international publication. In other words, the results of this study facilitate Indonesian-English better rendering for qualified target texts.

Method

This study was designed using a descriptive qualitative approach. Ten research article manuscripts in Indonesian were purposefully chosen as the source of this study. The research articles were written by doctoral candidates of Pascasarjana Universitas Negeri Semarang intended to be submitted for internationally reputable indexed journal publication. The articles were analyzed in terms of their intratextual factors covering (1) the subject matter, (2) the text organization, (3) the use of non-verbal elements, (4) the characterization of the vocabulary employed to convey messages, (5) the features of the sentence structure, (6) the stylistic features, and (7) the suprasegmental features, as they are suggested by Nord (2005). The results of the text analysis were used as the bases for a trimming process, i.e. a process of making the source text tidier in order to make it physically prepared and ready or in good condition for interlingual rendering practice. The next phase was for the trimmed texts along with their originals to be rendered to English employing *Google Translate*. The data for this research were two sets of linguistic elements covered in the intratextual domains found in the translations of both the trimmed texts and the original ones. Comparison of the linguistic elements contained in the two types of translation would result in similarities and differences between the two variations of the texts which could be used as the bases to interpret whether the impact of the trimming process is significant causing the manuscripts to be viable for publication in internationally reputable journals.

Results and Discussion

Trimming Process

Subject matter

Scientific articles for international publication normally expose particular subject matters with background knowledge covering socio-cultural and technical aspects; they may also contain specific as well as internationally conventionalized terminology. Examples 1.a through 1.d show how

terminologies are presented in scientific texts. In 1.a, the term "Iyabelale" which refers to a traditional song in a certain ethnic group in Indonesia is trimmed by adding the word group "nyanyian tradisional". This way of trimming also goes with the term "Kondobuleng", i.e. a term referring to a traditional theatre, which is presented as "Teater Rakyat Kondomuleng". In 1.c, the term "Klausa Sirkumstasial-atributif" which is a translation of the English term "Circumstantial-attributive Clause" is given back to its origin. In 1.d. The terminology "Maternal Mortality Rate (MMR)" which is directly borrowed from English does not experience any change in the trimming process.

	Original Text	Trimmed Text
1.a	Iyabelale	Nyanyian Tradisional Iyabelale
1.b	Kondobuleng	Teater Rakyat Kondobuleng
1.c	Klausa Sirkumstansial-atributif	Circumstantial-attributive Clause
1.d	Maternal Mortality Rate (MMR)	Maternal Mortality Rate (MMR)

Terminologies contained in the source text need to be thoroughly comprehended during analysis so that the trimming process which functions to prepare the text for mechanic rendering really meets its goal, i.e. minimizing inaccuracy and maximizing naturalness of the translation result.

Text organization

The texts under analysis in this study contain, among other things, excessive number of words, word repetition, missuse of collocation, and substandard use of punctuation, These are exemplified in 2.a.

	Original Text	Trimmed Text
2.a	Sehubungan dengan masalah di atas, terdapat fokus masalah yang dapat diteliti, yaitu kompetensi guru dan pemanfaatan fasilitas (*online*). Dalam hal ini, penelitian ini bertujuan untuk: 1) Menganalisis model faktual model manajemen pengembangan kompetensi guru dengan salah satu fokus perencanaan pembelajaran; 2) Menganalisis desain model manajemen pengembangan kompetensi guru dengan memanfaatkan jaringan (*online*), dan 3) menganalisis validitas model manajemen pengembangan kompetensi guru dalam perencanaan pembelajaran dengan memanfaatkan jaringan (*online*). (68 words)	Berdasarkan latar belakang di atas, masalah yang dapat dipecahkan terkait dengan kompetensi guru dan pemanfaatan fasilitas *online*. Penelitian ini bertujuan untuk menganalisis model faktual manajemen pengembangan kompetensi guru yang terfokus pada perencanaan pembelajaran, desain model manajemen pengembangan kompetensi guru yang memanfaatkan jaringan *online*, dan validitas model manajemen tersebut. (48 words)

In 2.a, such words or word groups as "Sehubungan dengan masalah di atas", "Dalam hal ini", and "fokus" are unnecessarily used to construct the paragraph causing the presence of an excessive number of words. Besides, the word "menganalisis" which is used repeatedly has also resulted in a lengthy paragraph. Furthermore, the paragraph contains a number of deviant word collocations like "masalah ... diteliti" istead of "masalah ... dipecahkan". The inconsistent and unnecessary use of punctuation marks like a colon (:), brackets, and numbering have made the paragraph looks substandard. The trimming process results in a new paragraph consisting of 48 words much fewer than the original one which consists of 68 words.

Non-verbal elements

Non-verbal elements are commonly presented to facilitate understanding and support meaning which is presented in the verbal text be it a description, explanation, argument, or any other text types. However, the visual images exemplified in 3.a along with the title are capable of telling the reader about differences. So, such images are capable of standing by themselves even without any description or explanation. In other words, such images do require any trimming except the title of the images.
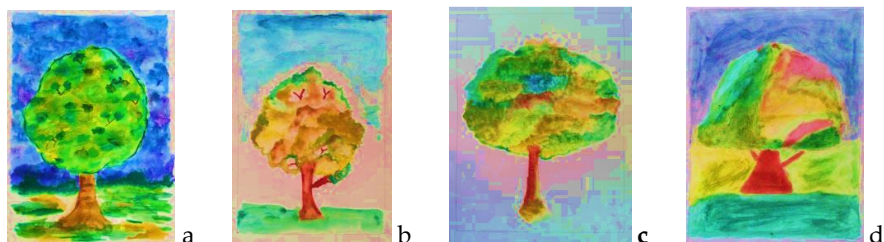
a   b   **c**   d

	Original Text		**Trimmed Text**
3.a	Gambar 2 a, b, c, d. Karya siswa berbeda-beda meskipun objeknya sama.	3.b	Figure 2 a, b, c, d. The students' drawings are different from each other even though the object is the same.

The visual images presented above show that they can be presupposed to represent different objects. However, the verbal text accompanying them makes its readers understand that the drawings are actualy visualization of the same object. In other words, while visual images are supposed to make original verbal text less difficult to understand and the opposite may also be the case.

Vocabulary

Collocation which is used to refer to a combination of words which sounds correct is often misused in constructing utterances. Example 4.a shows that the noun "masalah" is combined with "diteliti" instead of "dipecahkan", while in 4.b the noun "Pembelajaran" is defiantly collocated with "mempunyai masalah" instead of "menghadapi masalah".

	Original Text	**Trimmed Text**
4.a	Terdapat fokus **masalah yang dapat diteliti**, yaitu kompetensi guru dan pemanfaatan fasilitas *online*.	**Masalah yang dapat dipecahkan** terkait dengan kompetensi guru dan pemanfaatan fasilitas *online*.
4.b	**Pembelajaran PAI** dalam konteks kompetensi guru, **mempunyai** beberapa masalah,	Dalam konteks kompetensi guru, **pembelajaran PAI menghadapi** beberapa masalah

Acronyms may be culture-specific or conventionally used in various texts around the globe. They have to be treated differently in the trimming process. Example 5.a shows that the acronym "IPK" is directly substituted with the English term "GPA". In Example 5.b and 5.c, the terms "MGMP" and "GPAI", which are commonly familiar among school teachers in Indonesia are replaced with "Subject Teacher Consultation" and "Islamic Education Teacher" respectively without any abbreviation. On the contrary, Example 5.d shows the use of the English abbreviation "SEM" which goes as it is in the trimming process.

	Original Text	**Trimmed Text**
5.a	Indeks Prestasi Kumulatif (IPK)	Grade Point Avarage (GPA)
5.b	Musyawarah Guru Mata Pelajaran (MGMP)	Subject Teacher Consultltation
5.c	Guru Pendidikan Agama Islam (GPAI)	Islamic Education Teacher
5.d	Structural Equation Modelling (SEM)	Structural Equation Modelling (SEM)

Words may also be redundantly used in constructing word groups or phrases. For instance, in 6.a, the term "Existent" is basically understood as an element of Existential Clause so it is unnecessary to explicitly mention it as "unsur". Besides that, the term "bunyi" is understood as something that can be heard even when it is expressed without the accompaniment of the expression "atau sesuatu yang dapat didengar". In 6.b, "hair" is understood as "the mass of thin thread-like structures on the head of a person" (CALD). Therefore, using the word "kepala" to go with "rambut is considered redundant. In the trimming process, the terms "unsur Eksisten", "bunyi atau sesuatu yang dapat didengar", and "rambut" are trimmed to yield the terms "Eksisten", "bunyi", and "rambut" respectively.

Original Text	**Trimmed Text**
Jika unsur Eksisten pada Klausa Eksistensial	Jika Eksisten pada Klausa Eksistensial adalah

6.a	adalah nomina yang maknanya dirujukkan kepada bunyi atau sesuatu yang dapat didengar, klausa tersebut direstruktur dengan menambahkan kata "terdengar".	nomina yang maknanya dirujukkan kepada bunyi, klausa tersebut direstruktur dengan menambahkan kata "terdengar".
6.b	Ini tentu menimbulkan pertanyaan, kecuali "uban" memang lazim dianggap sebagai hiasan di rambut kepala	Ini menimbulkan pertanyaan, kecuali "uban" memang lazim dianggap sebagai hiasan di rambut

Sentence Structure

The trimming of sentence structures includes a number of modifications. An example of such modification is a change of prepositional phrase "pada contoh 136 s.d. 138" to noun phrase "contoh 136 – 138" in 7.a that is followed by a change of passive verb "diperlihatkan" to active one "memperlihatkan". Verb activation (as apposed to verb passivization) may also be accompanied with verb substitution as shown in the substitution of "terwujud" with "menggambarkan" and the word reordering as they are shown in 5.7. Example 7.c shows a change of noun "pergeseran" to verb "diubah" while substituting the base "geser" to "ubah" and omitting the optional word "unsur".

	Original Text	**Trimmed Text**
7.a	Selanjutnya, pada contoh 136 s.d. 138 diperlihatkan rekonstruksi Klausa *sirkumstansial-atributif*	Selanjutnya, contoh 136 - 138) memperlihatkan rekonstruksi Klausa *sirkumstansial-atributif*
7.b	Contoh 175 dan 176 terwujud dengan pola seperti yang digambarkan di atas.	Contoh 175 dan 176 menggambarkan pola yang diconcohkan di atas.
7.c	pergeseran Klausa Eksistensial menjadi Klausa Relasional dilakukan dengan merestruktur unsur Eksisten menjadi *Carrier* .	Klausa Eksistensial diubah menjadi Klausa Relasional dengan merestruktur Eksisten menjadi *Carrier*.

The trimming of sentence structure also includes a change of noun functioning as subject to a verb which may be called verbalization followed by the omission of the verb in the original clause. In Example 8.a, the headword of the subject "Penerjemahan" shifts its position to predicate and changing its form to the passive verb form "diterjemahkan". Besides that, the sub-clause "yang terdapat dalam BSu" is modified to the prepositional phrase "dalam SL" in which the terminology "Bahasa Sumber" is directly matched with the term "Source Language". In Example 8.b, the noun "rekonstruksi" in the clause "Rekonstruksi dilakukan" is verbalized to "direkonstruksi" to form the clause "Klausa direkonstruksi" while adding the adverbial of place "dalam TL", in which TL (standing for Target Language) is the direct match of "Bahasa Sasaran". In Example 8.c the noun "pengembangan" is verbalized to "dikembangkan". In the three examples, the verb "dilakukan" which functions to introduce an activity of "Penerjemahan", "Rekonstruksi", and "Pengembangan" is dropped altogether. Other introductory verbs like that include "diupayakan" (in 8.d), "dilaksanakan", "dikerjakan".

	Original Text	**Trimmed Text**
8.a	Penerjemahan klausa jenis ini juga dilakukan dengan merekonstruksinya menurut pola klausa yang terdapat dalam Bahasa Sumber	Klausa jenis ini juga diterjemahkan dengan merekonstruksinya menurut pola klausa dalam Source Language.
8.b	Rekonstruksi dilakukan berdasarkan pola klausa BSu.	Klausa direkonstruksi dalam TL menggunakan pola klausa SL.
8.c	Pengembangan kurikulum dapat dilakukan secara efektif	kurikulum dapat dikembangkan secara efektif
8.d	Pengembangan model tersebut diupayakan dengan menyusun panduan pelatihan	Model tersebut dikembangkan dengan menyusun panduan pelatihan

Stylistic Features

In Indonesian, clauses are commonly constructed by positioning verbal predicate preceeding subject.

	Original Text	**Trimmed Text**
9.a	Dengan demikian, dapat ditarik inferensi bahwa	Dengan demikian, dapat diinferensi bahwa

penerjemahan Klausa eksistensial dilakukan dengan rekonstruksi klausa Bsu	Existential Clause SL diterjemahkan dengan merekonstruksinya

Another stylistic feature commonly found in Indonesian writing includes the use of such classifiers as "orang" in "30 orang guru", "buah" in "tiga buah buku", and "butir" in " lima butir telur" which are optionally preceded by the word "sebanyak". Such classifiers are generally dropped in the trimming process for translation purpose because they are not commonly available in English even though such classifiers as "piece", "pair", and "bunch" are common in the target language. In Example 10.a the expression "guru ... sebanyak 30 orang (60%) is trimmed to result in "30 guru (60%)".

	Original Text	**Trimmed Text**
10.a	**Guru** yang menyatakan pernah mendapatkan pelatihan penyusunan RPP **sebanyak 30 orang** (60%)	**30 guru** (60%) menyatakan pernah dilatih untuk menyusunan LP

A feature which is common in Indonesian writing is the absence of verb functioning as predicator or the excessive use of introductory verb in verbal process and, contrary to it, the excessively use of introductory verb in clauses. In 11.a, the clause is trimmed by changing the noun "Penyusunan" to "disusun, while in 11.b the introductory verb "mengungkapkan bahwa," is dropped in the trimming process resulting in more effective clauses.

	Original Text	**Trimmed Text**
11.a	Penyusunan RPP baru dengan mengisi kolom identitas RPP	RPP baru disusun dengan mengisi kolom identitas LP
11.b	Menurut Dewey (1994) mengungkapkan, bahwa seni dapat menjadi alat untuk mencapai tujuan pendidikan.	Menurut Dewey (1994), seni dapat menjadi alat untuk mencapai tujuan pendidikan.

Examples 10 and 11 clearly show that while the utterances reflect the stylistic features of the original text, the fact that such features exist the texts under analysis implies that trimming is neccesary to make the styles compatible with those of the target language. Compatibility of the features makes it possible to result in good rendering.

Readability

Text Readability

The readability of the translations of both the original ST along with the trimmed one was checked using the seven readability formulas available in http://www.readabilityformulas.com. These formulas were used to help determine the grade level of both texts. The followings are the seven formulas along with their uses in determining the readability level of a text. (1) The Flesch Reading Ease formula which provides a number ranging from 0 to 100; a higher score indicates easier reading and the other way round. (2) The Flesch-Kincaid Grade Level indicates the average student that is capable of reading the text. A score of 7.4 indicates 7th graders' understanding of the text. (3) The Fog Scale is similar to the Flesch scale; comparing syllables and sentence lengths, a higher score indicates easier reading and a lower reading indicates more difficult one. (4) The SMOG Index indicates the average student in that grade level that is able to read the text. (5) The Coleman-Liau Index relies on characters rather than syllables per word and sentence length. A grade of 10.6 implies that the text is appropriate for 10-11th graders. (6) Automated Readability Index shows a number which approximates the grade level needed to comprehend the text; number 3 implies that 3rd graders should be able to comprehend the text. (7) Linsear Write Formula helps students calculate the readability of their writing. It is designed to calculate the grade level of a text based on sentence length and the number of words that have three or more syllables.

Table 1 Readability Indices

No	Readability Formulas	TL Manuscripts		Quality
		Original	Trimmed	
1	Flesch Reading Ease score	40.1	38	difficult to read
2	Gunning Fog	17.9	17.9	difficult to read
3	Flesch-Kincaid Grade Level	15.7	16	College Graduate and above
4	The Coleman-Liau Index	11	11	Eleventh Grade
5	The SMOG Index	13.8	14.1	college
6	Automated Readability Index	17.5	18.1	College graduate
7	Linsear Write Formula	21.9	22.2	College Graduate and above
8	Readability Consensus	16	16	Reading Level: difficult to read.Reader's Age: College graduate

Table 1 represents a situation in which the translation of a sample of original text containing 934 words and its trimmed one containing 813 words are compared. The result is that, in general, the trimmed text is higher in quality than the translation of the original text in that it becomes more appropriate for college graduates and above who are actually the target readers of the text. Out of the seven measures, the three versions are similar to each other while the rest indicate that the scores of the trimmed text are a bit higher than those of the original one even though the difference between the two looks insignificant.

Table 2 Word Statistics

No	Characters, Syllables, Words	TL Manuscripts	
		Original	Trimmed
1	Total # of words	934	813
2	Total # of unique words	33%	34%
3	Average # of words per sentence	29	33
4	Average # of characters per word	4.8	4.9
5	Average # of syllables per word	2	2
6	Percent of double syllables in text	15%	15%
7	Percent of single syllables in text	67%	67%
8	Percent of 3+ syllables in text	18%	18%

The employment of the readability measure also results in word statistics presented in Table 2. That the total number of words of the trimmed text (813) is lower than that of the original text (934) implies that the process of trimming does not just reduce the average number of characters and syllables per word as well as and the average number of words per sentence but, more importantly, improve the quality of the text.

Discussion

Source text analysis is an integral part of translation. However this translation phase mainly covers the study or examination of the text for the discovery of extratextual as well as intratextual aspects existing in it. Trimming process needs actions to modify elements of the text in order for the trimmed one to be compatible with the meachanical translation employed for the translation purpose.

As being stated by Noord (2005), source text analysis envolves extratextual and intratextual factors, the latter including subject matter, text organization, non-verbal elements, lexis, setnetnce structures, stylistic features, and suprasegmental features. It was found in the texts under analysis that (1) the subject matter is mostly presented orienting on the writer who seems to presuppose that the such terminology as "Iyabelalte" is understandable. This has made its translation, without any trimming, misunderstood or incomprehensible.

This study also finds out that the original texts are mostly written in excessive number of words, unecessary word repetition, missuse or even abuse of collocation, and sub- or non-standard use of punctuation. Without substantial trimming such texts will certainly yield translations that would not fulfill the requirements of academic text writing. In other words, source text trimming is needed to standardize the texts so as to make them fulfill the need of academic writing.

Noord (2005; also see Tyler 2016) also states that texts may use technical or colloquial vocabulary, collocations, idioms, keywords, words for particular effects, acronyms or abbreviations, neologisms, particular lexical fields. Therefore, this study find the use of such features throughout the texts. Often times, they are quite culture-bound making it nescessary to fully trim them or even translate them manually to make them compatible with the lexis avaliable in the target language.

Similar to the use of lexis in the original texts, the use of sentence structures in them is necessitates the implementation of trimming process. This is due to the fact that sentences in the original texts are either ungrammatical or incompatible with their counterparts in the target language.

As stated above, the fact that utterances reflect the stylistic features of the original text implies that trimming is neccesary to make the styles compatible with those of the target language. Compatibility of the features makes it possible to result in good rendering.

Table 1 shows that even though the results of applying the seven formulas are different from each other, it is shown that the readability consensus shows the same score, i.e. 16, for both the translation of the original text and the trimmed one, qualifying that the texts are difficult to read and and are supposed for college graduate. Meanwhiole, Table 2 shows that, as for the word statistics, the trimmed texts are more efficient in the total use of words, higher in percentatage in the use of unique words, employing longer sentences, and longer words. This implies that trimming may imrpove the translation quality although such improvement has not been proved significant. This may be due to the limitation of the text length.

Conclusions

Source text trimming for translation purposes results in novel texts which are more compact, consisting of linguistic features which are more compatible with those of the target language, and more prepared for mechanical translation. Comparison between the translation of the trimmed texts and their originals found that the quality (including accuracy, readability, and naturalness) of the former is higher than the latter in that the translation of the trimmed texts has resulted in a relatively standard form of scientific writing. In other words, trimming makes the source texts more ready for rendering so that it improves the translation quality of the academic manuscripts.

Acknowledgments

References

Bell, R. (1991). *Translation and translating theory and practice*. London: Longman Group.

Bermann, S., & Porter, Ch., (Eds.). (2014). *A companion to translation*. London: John Wiley & Sons, Ltd. https://doi.org/10.1002/9781118613504.

Boukhaffa, A. (2018). Text analysis model for enhancing translation memory outcome. *trans-kom*, 11 (1), 45–62. http://www.trans-kom.eu/bd11nr01/trans-kom_11_01_03_Boukhaffa_Text_Analysis.20180712.pdf.

Colina, S. (2015). *Fundamentals of translation*. Cambridge: Cambridge University Press.

Dicerto, S. (2018a). *Multimodal pragmatics and translation*. London: Palgrave Macmillan. https://www.palgrave.com/in/book/9783319693439.

Dicerto, S. (2018b). A new model for source text analysis in translation. In Dicerto, S. (2018a), 1-14.

Dicerto, S. (2018c). Analysing multimodal source texts for translation: A proposal. In Dicerto, S. (2018a), 61-97.

Dicerto, S. (2018d). Multimodal ST analysis: The model applied. In Dicerto, S. (2018a), 99-157.

Gentzler, E. (1993). *Contemporary translation theories*. London: Routledge.

Grego, K. (2010). *Specialized translation: Theoretical issues, operational perspectives*. Monza: Polimetrica.

Hansen-Schirra, S., Czulo, O., & Hofmann, S. (Eds.). (2017). *Empirical modelling of translation and interpreting*. Berlin: Language Science Press. DOI:10.5281/zenodo.1090974.

Hatim, B., & Mason, I. (1990). *Discourse and the translator.* London: Longman.

Hatim, B., & Mason, I. (1997). *The translator as communicator*. London: Routledge.

Hewson, L., & Martin, J. (1991). *Redefining translation: The variational approach*. London: Routledge.

Larson, M. (1984/1997). *Meaning-based translation: A guide to cross-language equivalence*. Lanham and London: University Press of America.

Lennon, B. (2014). Machine translation: A tale of two cultures. In Bermann, S., & Porter, Ch., (Eds.), 133-146. https://doi.org/10.1002/9781118613504.ch10.

Mujiyanto, Y. (2018). *Strategies in translation practices*. Semarang: UNNES Press.

Munday, J. (2012). *Introducing translation studies: Theories and applications.* London: Routledge.

Munday, J. (2014). Text analysis and translation. In Bermann, S., & Porter, Ch., (Eds.), 67-81. https://doi.org/10.1002/9781118613504.ch5.

Newmark, P. (1988). *A textbook of translation*. Hemel Hempstead: Prentice Hall.

Nida, E.A., & Taber, Ch.R. (1974/1982). *The* theory and practice *of.* translation. Leiden: E.J Brill.

Nord, Ch. (1991). Scopos, loyalty and translation conventions. *Target 3*(1), 91-109.

Nord, Ch. (1997) *Translating as a purposeful activity*. Manchester: St Jerome.

Nord, Ch. (2005) *Text analysis in translation: Theory, methodology, and Didactic application of a model for translation-oriented text analysis*, (2nd ed.). Amsterdam & New York: Rodopi.

Rossetti , A. & Gaspari, F. (2017). Modelling the analysis of translation memory use and post-editing of raw machine translation output: A pilot study of trainee translators' perceptions of difficulty and time effectiveness. In Hansen-Schirra, S., Czulo, O., & Hofmann, S., 31-67.

Snell-Hornby, M. (1988). *Translation studies an integrated approach*. Amsterdam/ Philadelphia: John Benjamins Publishing Company.

Troqe, R., & Marchan, F. (2017). News translation: Text analysis, fieldwork, survey. In Hansen-Schirra, S., Czulo, O., & Hofmann, S., 277–310.

Tyler, E. (2016). Analysing your Source Text - Tree-Genie. Available at www.treegenie.co.uk/.../Analysing%20your%20Source%20.

Venuti, L. (Ed.). (2000). *The translation studies reader*. London: Routledge.

Zlateva, P. (2010). Text analysis as a tool in translation training: Why, how and to what extent? A response to Anna Trosborg. Current issues. *Language and Society*, 7(3), 2000, 261-266. https://doi.org/10.1080/13520520009615587.