

A COMPARISON OF WORD, ABOVE WORD, AND GRAMMATICAL EQUIVALENCE OF GOOGLE AND HUMAN TRANSLATION OUTPUT IN 'MEDICAL-SURGICAL NURSING' BOOK

Ida Ayu Made Friska Setiawati¹, Ida Bagus Putra Yadnya², I Nyoman Aryawibawa³

Master study of Linguistics, Faculty of Arts, Udayama University

Abstract

This study aims to analyze the equivalence of translation results produced by Google Translate and the human translator in terms of equivalence at word level, above word level, and grammatical equivalence. This study was designed as a descriptive qualitative research. Moreover, the data were taken from a medical book entitled 'Handbook for Brunner and Suddarth's Textbook of Medical-Surgical Nursing' and its translation 'Keperawatan Medikal-Bedah Brunner & Suddarth'. The data were identified and analyzed based on the concept of equivalence proposed by Baker (1992). The result showed that at word level, there were 5 out of 51 data were identified having different interpretations and only 1 had the same meaning to the SL. Meanwhile, there found 30 out of 51 data were identified in terms of equivalence above word level. In which, the majority of 16 phrases out of 30 translated in different choice of words leading to different meaning as intended in the SL. Furthermore, the category of grammatical equivalence found in the translation produced by Google Translate and human translator are number, voice and tense. In terms of number, the most changes occurred in the human translation is in the form of plural to singular, while in the Google translation, the plural nouns were translated into both singular and plural nouns. Moreover, in terms of voice, Google Translate translated in the same form as in the source language, while in the human translation, the form changed from SL active into passive and SL passive into active. In the category of tense and aspect, the human translator translated changed SL present perfect into TL present, while Google Translate added temporal determiners to show the adverb of time of the sentence.

Published by IJRP.ORG. Selection and/or peer-review under responsibility of International Journal of Research Publications (IJRP.ORG)

Keywords: equivalence at word level, equivalence above word level, google translation, grammatical equivalence, human translation

I. Introduction

Translation is a process of transferring equivalent meaning from a source language to a target language. According to Catford (1965), he defined translation as the replacement of textual material in one language by equivalent textual material in another language. Meanwhile, Nida and Taber (1982) stated that translation consists of producing the receptor language the closest natural equivalence of source language message, that first deals with meaning and secondly in terms of style. Then, Newmark (1998) emphasized that 'translation is a craft consisting in the attempt to replace a written message and/or statement in one language by the same message and/or statement in another language'. Moreover, there is one aspect that must be considered in translation. That is finding the equivalent word to transfer meaning from source to target language as emphasized by some linguistics in defining the word translation.

The term equivalence becomes the one of essential elements in translation. Translators usually have to deal with various changes in equivalence within different language levels (Heidary, 2009). The translator who working on translation has to be aware of the meaning that is intended in the source text. Therefore, the translators must understand the meaning conveyed in the source language, so the translator can choose the right synonym of the words to paraphrase or simplify the text to transfer it in a proper form in the target language (Alfaori, 2017). However, on the other hand, in this 21 century, humans are helped by machine translation in doing a translation. Machine translation is usually used by the translator to do a basic translation that makes it easier for the translator to translate text. One of the most used machine translation is Google Translate.

Google Translate is a machine translation launched in 2006. This machine was designed to help language users to translate from one language to another different language. Google Translate can give an immediate translation across 103 different languages in seconds (Gough, 2018). Meanwhile, some scholars revealed this machine translation still has limitations, when it was designed as PBMT. Moreover, Google Translate was not trusted to translate text or document that required a high requirement of qualities because this machine is still concerned and has limitations in qualities (Aslerasouli & Abbasian, 2015). The other drawback of Google Translate that this machine is not always sensitive to recognize the context of the rendered sentence (Sheppard, 2011). Ambiguity and double meaning are other problems in Google Translate that leads to the non-equivalent meaning in the target language.

In recent years, Google Translate has been developed to offer better performance to language users. Google AI Team developed an enhanced system to the engine of Google Translate by evolving the old model of Phrased-based Machine Translation into the new Google Neural Machine Translation (GNMT). Moreover, since the use of multilingual Neural Machine Translation, Google has been developed from supporting two languages to 103 different languages (Turovsky, 2016). Furthermore, intelligently, Google Translate NMT is programmed to translate the input sentence as one unit for translation (V.Le, *et al* 2016), while the previous PBMT translated sentence by breaking it up into the smallest part such word and phrases to be translated independently. This Google Translate is claimed can produce more relevant translation to be more like human translation (Turovsky, 2016). This has been proven by a study conducted by Budiharjo in 2019, that the new GNMT to some extent can accurately translate the source language into the target language.

Therefore, based on the background above, this study was conducted to compare the quality of translation output produced by Google Translate and human translator from English into Indonesia in terms of equivalence at word level, above word level, and grammatical equivalence. The data were acquired from the medical book entitled 'Handbook for Brunner and Suddarth's Textbook of Medical-Surgical Nursing' and its translation '*Keperawatan Medikal-Bedah Brunner & Suddarth*'.

II. Theoretical Framework

2.1 Translation

Translation is a process of translating text or concept in a source language into a target language. Larson (1984) defined translation as a process of translating the form of the first language to the form of the second language by the means of semantic structure. In translating source language to target language, the meaning must be maintained continually. Meanwhile, Nida and Taber (1982:33) distinguish the translation process into three stages, namely, analysis, transfer, and restructuring.

2.2 Equivalence in Translation

The concept of equivalence becomes one of the essential issues in translation. Determining the equivalent of texts is one of the problems in the translation process because translation can be done from several perspectives. As stated by Catford (195) that "the central problem of translation-practice is that of finding TL

equivalents. A central task of translation theory is that of defining the nature and conditions of translation equivalence.” This concept is developed to be used to indicate a comparison between source and target text in different languages, which the applicability within the translation field became a controversy.

The concept of equivalence was first used by Jakobson in his work in 1959. Since then, many different theories of the concept of equivalence had been developed by some theorists, who attempted to distinguish the concept of equivalence itself. Those theorists are Vinay and Darbelnet (1958), Jakobson (1959), Nida and Taber (1969), Catford (1965), House (1997), Koller (1979), Newmark (1981), and Baker (1992), as well as Pym (2010).

2.3 Concept of Translation Equivalence by Baker (1992)

Mona Baker in her book ‘In Other Words: a Course Book on Translation’ published in 1992, defines the concept of equivalence as the relationship between source and target text, in which any meaning in the target text (TT) is considered as a translation that can express the same meaning in the source text (ST). Furthermore, Baker (1992) acknowledges that equivalence can be achieved to some extent, because of the influence of a variety of linguistic and cultural factors, that makes translation seems relative. Moreover, she divides five types of translation equivalence. Those are equivalence at word level, equivalence above word level, grammatical equivalence, textual equivalence, and pragmatic equivalence. However, in this study, the translation outputs produced by Google and the human translator were only analyzed under three kinds of equivalence level proposed by Baker (1992), such as word level, above word level, and grammatical equivalence.

1. Equivalence at Word Level

Baker outlines that equivalence at word level is the first-essential element that have to be considered by the translator. This can be seen from the fact that, in the translation process, at first translator looks at and analyses the words as a single unit in order to find a direct ‘equivalent’ term in the target language (TL). Therefore, Baker defined the term word since a single word can sometimes be assigned different meanings in different languages or might be categorized as a complex linguistic unit or morpheme (Baker, 1992: 11-12). Hence, the translator should concern on factors that can influence the choice of word, such as number, gender and tense. Furthermore, she distinguishes four main types of meaning in words and utterances. Those include proportional meaning, expressive meaning and presupposed meaning as well as evoked meaning.

2. Equivalence above Word Level

At above word level, Baker acknowledges that word can express a different meaning when the word occurs in the company of other words to construct meaning (Baker, 1992:46). She also emphasizes that words cannot be combined at random in any language. There are always restrictions and rules in constructing individual words into a new lexical (Baker, 1992:46). The differences of lexical patterning in any language sometimes make translator encounters difficulty in finding an equivalent word in TL. Collocation, idioms and fixed expressions are associated with lexical patterning (Baker, 1992:47).

3. Grammatical Equivalence

Grammar equivalence is associated with the diversity of grammatical rules across languages. Baker determines grammar as ‘a set of rules in which words and phrases can be combined and made regularly explicit in utterances’ (Baker, 1992:83). She claims that the dissimilarity of grammatical structures across language might cause remarkable changes in the information during the process of translation. The change of information might be in the form of deleting specified information in the ST, or in the form of adding information to the target text which is not conveyed in the source text. Those changes to the target text can be happened because of the lack of grammatical categories in the target language that exists in the source language (Baker, 1992:86). Baker outlines five major categories that can be a problem for translators, such as in term of number, gender, person, voice, and tense and aspect.

3.1 Number

The term number refers to the idea of countability. Baker outlines that not all languages might have the same grammatical category of number and those do not necessarily view countability in the same terms (Baker, 1992:87). For instance, in English, the distinction of number is divided into singular and plural. In which, the distinction is expressed morphologically, whether adding suffix *s/es* or changing its form to indicate the amount.

3.2 Gender

Gender is associated with the grammatical difference, based on the noun or pronoun that either can be classified as masculine or feminine. The distinction in terms of nouns can be applied to animate beings as well as inanimate objects (Baker, 1992:90).

3.3 Person

In the division of person, it refers to the notion of participant roles (Baker, 1992:94). Participant roles are characterized through a closed system of pronouns which distinguished into three different dimensions. The common distinction is between the first person (identifying the speaker or group that includes the speaker), second person (identifying the person or person addresses), and the third person (identifying person other than the speaker and addressee) (Baker, 1992:95).

3.4 Voice

The grammatical category of voice defined as the relationship between a verb and its subject (Baker, 1992:98). In the active clauses, the subject is the agent who responsible for the action, while in the passive clause, the subject is the affected entity and the agent might be specified or not, depending on the structures in each language (Baker, 1992:98).

3.5 Tense and Aspect

In some languages, tense and aspect belongs to grammatical categories. The form of the verb in languages usually illustrates two types of information, namely time relations and aspectual differences (Baker, 1992:98). In time relations, it deals with locating an event in time. Those include past, present, and future. Meanwhile, aspectual differences indicate the temporal distribution of an event, such as completion or non-completion, continuation or momentariness (Baker, 1992:98)

III. Research Methods

This study was designed as a descriptive qualitative research. The aim of this study to analyse the translation output translated between Google Translate and the human translator in terms of equivalence at word level, above word level, and grammatical equivalence. The data were taken from two books. The first book is the English text from the book 'Handbook for Brunner and Suddarth's Textbook of Medical-Surgical Nursing' that was used as the source text. Meanwhile, the second book is the Indonesian version of the book entitled '*Keperawatan Medikal Bedah Brunner & Suddarth*' that is used as the translation output produced by the human translator. Reading and observing the English book 'medical-surgical nursing' were conducted to select sufficient data for this study. There are 51 data were identified as the data of the source language. Those 51 sentences were translated to the target language by Google Translate as Google's translation output. After all the data were acquired, those data were listed side to side in a table. In which the table was divided into five columns, consisting of number of the sentence, the sentence in the source language, the result of the human translation, and Google translation as well as the category of the equivalence. Moreover, the writer identified and classified the data by underlining the data based on the theory of equivalence at word level, above word level, and grammatical equivalence that is proposed by Baker (1992). Furthermore, the data were analyzed by comparing whether the output of the translation produced by Google and the human translator are equivalent to the intended meaning in the source language. *Kamus Kedokteran Dorland*, Cambridge online dictionary, and KBBI online dictionary were also used to help the writer in analysing the data.

IV. Results and Discussions

A. Equivalence at Word Level

1. Datum 1 (S.30)

SL: Kaposi's sarcoma (KS) is the most common HIV-related malignancy and involves the endothelial layer of blood and lymphatic vessels (exhibits a variable and aggressive course, ranging from localized cutaneous lesions to disseminated disease involving multiple organ systems).

a. Google Translation

TL: Sarkoma Kaposi (KS) adalah keganasan terkait HIV yang paling umum dan melibatkan lapisan endotel darah dan pembuluh limfatik (menunjukkan perjalanan yang bervariasi dan agresif, mulai dari lesi kulit lokal hingga penyakit diseminata yang melibatkan berbagai sistem organ).

b. Human Translation

TL: Sarkoma Kaposi (KS) adalah keganasan yang paling sering dikaitkan dengan HIV dan mengenai lapisan endotel pembuluh darah dan limfa (menunjukkan perjalanan penyakit yang beragam dan agresif, berkisar dari lesi kutaneus lokal sampai penyebaran (diseminata) penyakit yang mengenai banyak system organ).

The translation of the word 'involve' produced by Google and the human translator is different. Google translated it as 'melibatkan', while in the human translation it translated into 'mengenai'. The word 'mengenai' conveyed an ambiguous meaning in the target language because this word can be meant as 'about something' or 'affected or touched by something'. In this case, the word 'involve' means as 'to include someone in something or make them part of it'. The word 'melibatkan' is more general and proper translation in the target language based on the context of the sentence because the word 'mengenai' is ambiguous that can make the readers get confused and uncommon to be used.

2. Datum 2 (S.32)

SL: These types of lymphomas are characteristically of a higher grade, indicating aggressive growth and resistance to treatment.

a. Google Translation

TL: Limfoma jenis ini secara khas memiliki tingkat yang lebih tinggi, menunjukkan pertumbuhan agresif dan resistensi terhadap pengobatan.

b. Human Translation

TL: Jenis limfoma secara khas memiliki derajat tinggi, mengindikasikan pertumbuhan yang agresif dan resistansi terhadap terapi.

From the datum above, the word 'treatment' was translated as 'pengobatan' in the Google translation, while in the human translation it was translated into 'terapi'. Both of those translations have close meaning to each other in the target language, which means the process of restoring the health of a sick person. Meanwhile, the word 'terapi' is commonly used in the medical term, because of any action or drug is given to

a patient that is a form of therapy given by paramedic. Therefore, the result of the human translation 'terapi' is more acceptable in the target language than the output produced by Google Translate.

B. Equivalence above Word Level

1. Datum 1 (S.2)

SL: Acquired immunodeficiency syndrome (AIDS) is defined as the most severe form of a continuum of illnesses associated with human immunodeficiency virus (HIV) infection.

a. Google Translation

TL: *Acquired immunodeficiency syndrome (AIDS) didefinisikan sebagai bentuk paling parah dari rangkaian penyakit yang terkait dengan infeksi human immunodeficiency virus (HIV).*

b. Human Translation

TL: *Sindrom imunodefisiensi didapat Acquired immunodeficiency syndrome (AIDS) didefinisikan sebagai bentuk paling berat dalam rangkaian penyakit yang disebabkan oleh sekelompok virus HIV (Human Immunodeficiency Virus).*

In the Google translation, the phrasal verb 'associated with' was translated into 'yang terkait dengan', while it is translated as 'disebabkan oleh'. The word 'associated with' if it is translated in the target language, it means 'berkaitan dengan'. However, according to the medical dictionary, the word AIDS means as 'Kumpulan berbagai gejala menurunnya kekebalan tubuh yang disebabkan oleh HIV (Human Immunodeficiency Virus)'. From that definition, it showed that the phrase 'disebabkan oleh' that was translated by the human translator is acceptable as the translation of 'associated with', because that phrase conveyed the same meaning as in the target language especially refer to the medical language.

2. Datum 2 (S.3)

SL: HIV belongs to a group of viruses known as retroviruses.

a. Google Translation

TL: *HIV termasuk dalam kelompok virus yang dikenal sebagai retrovirus.*

b. Human Translation

TL: *HIV disebabkan oleh sekelompok virus yang dikenal sebagai retrovirus.*

From the datum above, the phrase 'belongs to' was translated into 'termasuk dalam' by Google Translate, while the human translator translated it as 'disebabkan oleh'. The phrasal verb 'belongs to' means as 'to be in the relation of something'. The phrase 'termasuk dalam' and 'disebabkan oleh' indicate different meanings. If the sentence is linked to the various sources, the word 'belongs to' in that sentence indicates that HIV is a retrovirus group itself. Therefore, the proper and close translation to the meaning conveyed in the source language is the phrase 'termasuk dalam' instead of 'disebabkan oleh'.

3. Datum 3 (S.8)

SL: Four categories of infected states have been denoted:

a. Google Translation

TL: Empat kategori negara yang terinfeksi telah dinyatakan:

b. Human Translation

TL: Empat kategori status terinfeksi diindikasikan oleh:

The word phrase 'infected states' was translated differently between Google Translate and human translation. In Google translation, that word translated into 'negara yang terinfeksi' while produced as 'status terinfeksi' by the human translator. It can be seen that both translations indicate very different meanings. The word 'state' seemed to be ambiguous and appeared to be the central problem. If the sentence is connected to the next sentence, the phrase 'infected states' refers to the meaning of a symptom or condition being infected by HIV. The result of Google translation was considered as non-equivalent to the meaning in the source language. Therefore, the phrase 'status terinfeksi' is acceptable and close to the meaning of the whole sentence in the target language.

C. Grammatical Equivalence

There are five types of grammatical equivalence that proposed by Baker (1992), such as, number, gender, person, tense and aspect, and voice. However, there are only three types of grammatical equivalence were found in the translation of Google Translate, and the human translator in this medical surgical nursing book. Those are categories of number, voice and tense, and aspect. The results of grammatical equivalence which were found in the translation outputs produced by Google Translate and the human translator are discussed as follows.

C.1 Number

The grammatical categories of number that were found in both translation output are singular and plural nouns. In which, in the human translation, the most changes occurred in the form of plural to singular. English plural nouns were translated to singular nouns in the target language. Meanwhile, in the Google translation, the plural nouns were translated into both singular and plural nouns.

1. Datum 1 (S.14)

SL: People with received transfusions of blood or blood products contaminated with HIV, children born to mothers with HIV infections, breast-fed infants of HIV-infected mothers, and health care workers exposed to needle-stick injury associated with, and infected patient are also at risk.

a. Google Translation

- **SL Plural – TL Plural and SL Plural – TL Singular**

SL: People with received transfusions of blood or blood products contaminated with HIV, children born to mothers with HIV infections, breast-fed infants of HIV-infected mothers, and health care workers exposed to needle-stick injury associated with, and infected patient are also at risk.

TL: Orang yang menerima transfusi darah atau produk darah yang terkontaminasi dengan HIV, anak-anak yang lahir dari ibu dengan infeksi HIV, bayi yang diberi ASI dari ibu yang terinfeksi HIV, dan petugas kesehatan yang terpapar dengan luka akibat jarum suntik yang terkait dengan dan pasien yang terinfeksi juga berisiko.

b. Human Translation

- **SL Plural – TL Singular**

SL: People with received transfusions of blood or blood products contaminated with HIV, children born to mothers with HIV infections, breast-fed infants of HIV-infected mothers, and health care workers exposed to needle-stick injury associated with and infected patient are also at risk.

TL: Orang yang menerima transfuse darah atau produk darah yang terkontaminasi HIV, anak yang dilahirkan dari ibu penderita infeksi HIV, bayi yang disusui oleh ibu yang terindeksi HIV, dan tenaga kesehatan yang mengalami cedera tertusul jarum yang terpajan dengan pasien yang terinfeksi juga berisiko.

The results of the translation of the second datum showed that there is difference in translating nouns in terms of number between Google translate and human translator. For instance, as can be seen from the above sentence that the noun 'people' was translated into singular forms 'orang' by Google and human translator. 'people' is the plural form of 'person'. The word 'people' in the source language indicates more than one person, but on the other hand, the word 'orang' in the target language basically only refers to one subject. However, although the form is changed from plural to singular, it does not change the meaning of the whole sentence because it points to unity and still can be understood by the reader in the target language.

Moreover, the other noun which showed the difference of translation produced by Google and human translator is the word 'children'. Google Translate translated it as 'anak-anak' that indicates plural form or more than one child, while in the human translation, that word changed into singular form as 'anak'. In this case, sometimes, some Indonesian words that is in singular form can be used to indicate to a general or a unity that refers to unspecified thing or person. It means that, although the word 'children' was translated differently between Google and human, the translation of it, is pointed to an unspecified group of children that is not referred to a specific child.

Furthermore, this also happened to the translation of the word 'mothers', 'infants', and 'health care workers'. Both of Google and human translator was translated those words from plural to singular form. In this case, there are inconsistencies in the results of Google's translation. Google previously translated several plural words and maintained their form into plural nouns, but this time, Google translated those three words from plural to singular noun into 'ibu', 'bayi' and 'petugas kesehatan'. Although the results of the Google and human translation are the same as in the singular form, but the result are still acceptable and can be understood in the target language. Because those words do not indicate to a single entity but to general and unspecified mother, infant, and health care worker.

C.2 Voice

The category of voice in the grammatical equivalence is about the form of the sentence either it is arranged in an active or passive form. There are four types of the change of voice, namely SL active – TL active, SL active – TL passive, SL passive – TL active, and SL passive – TL passive. In the Google Translation, the form of the sentence was translated in the same form as in the source language, while human translator changed the form of the sentence, for instance translating from SL active into passive and SL passive into active.

1. Datum 1 (S.43)

SL: Depressive: Causes of depression are multifactorial and may include a history of preexisting mental illness, neuropsychiatric disturbances, psychosocial factors, or response to the physical symptoms.

a. Google Translation

SL: Depressive: Causes of depression are multifactorial and may include a history of preexisting mental illness, neuropsychiatric disturbances, psychosocial factors, or response to the physical symptoms.

TL: *Depresif: Penyebab depresi bersifat multifaktorial dan dapat mencakup riwayat penyakit mental yang sudah ada sebelumnya, gangguan neuropsikiatri, faktor psikososial, atau respons terhadap gejala fisik.*

b. Human Translation

SL: Depressive: Causes of depression are multifactorial and may include a history of preexisting mental illness, neuropsychiatric disturbances, psychosocial factors, or response to the physical symptoms.

TL: *Depresif: Depresi disebabkan oleh banyak faktor dan dapat mencakup riwayat penyakit mental sebelumnya, gangguan neuropsikiatrik, factor psikososial, atau respon terhadap gejala fisik.*

In the second datum, the sentence is in active transitive. It is marked by a modal 'may' and followed by verb 'include' that modifies the noun phrase. There is a difference in the translation of the sentence above translated between Google Translate and human translator. The phrase '*cause of depression*' was translated in the same form by Google Translate. It differs from the translation produced by the human translator. In the Google Translation, the phrase '*cause of depression*' was translated into '*penyebab depresi*'. The word '*penyebab depresi*' is categorized as an active noun phrase in the target language. Meanwhile, the phrase '*cause of depression*' was translated into '*depresi disebabkan*'. The Indonesian phrase '*depresi disebabkan*' is a passive noun phrase with a verb added by prefix *di-* and suffix *-kan* to indicate the passive form. Moreover, even though the translation outputs were produced in a different form, it still can be accepted because it doesn't change any meaning of the sentence itself.

C.3 Tense and Aspect

1. Datum 1

SL: Four categories of infected states have been denoted:

a. Google Translation

SL: Four categories of infected states have been denoted:

TL: *Empat kategori negara yang terinfeksi telah dinyatakan:*

b. Human Translation

SL: Four categories of infected states have been denoted:

TL: *Empat kategori status terinfeksi diindikasikan oleh:*

In the first datum, the form of 'have been denoted' indicates present perfect. In Bahasa Indonesia, the tense 'perfect' is marked by temporal determiners as '*telah*' or '*sudah*'. Furthermore, the phrase 'have been denoted' was translated into '*telah dinyatakan*' by Google Translate, while in the human translation it was translated into '*diindikasikan oleh*'. It can be seen that in the result of the first datum showed that there is a difference in terms of tense in the translation output produced between Google Translate and human translator. In the result of Google translation, the present perfect 'have been denoted' indicated that the idea 'four categories' has been established at an unspecified time in the past. Meanwhile, in the human translation, it was translated into '*diindikasikan oleh*'. There is no determiner '*sudah*' or '*telah*' translated by the human translator. It makes the translation '*diindikasikan oleh*' seems as a fact. That result shows that there are definite symptoms of the four categories of people who are infected by the disease.

V. Conclusion

Based on the analysis of the translation outputs produced by Google Translate and human translator, it can be drawn a conclusion that there were forty out of 51 data were identified in terms of equivalence at word

level, above word level and grammatical equivalence. There are some equivalent and non-equivalent data from both translations produced by Google Translate and the human translator.

In terms of equivalence at word level, four words are translated differently between Google Translate and human translator that leads to different interpretation of meaning. There is only one word translated with different choice of word by Google and the human translator but those words express the same meaning as intended in the source language. Meanwhile, based on the analysis of equivalence at above word level, there found 30 out of 51 data were identified in terms of equivalence above word level. In which, the majority of 16 phrases out of 30 translated in different choice of words leading to different meaning as intended in the SL. One of the data was categorized as inaccurate translation translated by Google Translate that did not fit with the original meaning in the source language.

Furthermore, the types of grammatical equivalence found in the translation produced by Google Translate and human translator are number, voice and tense. In terms of number, the most changes occurred in the human translation is in the form of plural to singular. Meanwhile, in the Google translation, the plural nouns were translated into both singular and plural nouns. Moreover, in the category of voice, the data were translated in the same form as written in the source language by Google Translate. Meanwhile, the data were translated into different forms from the source language by the human translator. The form changed from SL active into passive and SL passive into active. In contrast to the human, Google Translate added temporal determiners such as *'telah'* to show the adverb of time of the sentence.

VI. Acknowledgement

I would like to dedicate my gratitude to all linguistics lecturers in Udayana University, my family, and my fiancé for the endless supports and prayers.

Bibliography

- Alfaori, N.A.D.M. (2017). Equivalence Problems in Translation. *Sino-US English Teaching*, 14(2): p.86-97.
- Aslerasouli, P., & Abbasian, G.R. 2015. Comparison of Google Translation and Human Translation with Regard to Soft vs Hard Science Texts. *Journal of Applied Linguistics and Language Research*, 2(3) p.169-184. Available at: <http://www.jallr.com/index.php/JALLR/article/view/51>. [Accessed November 11th, 2019].
- Baker, M. (1992). *In Other Words. A Coursebook on Translation*. London: Routledge.
- Budiharjo, B. (2018). Google, Translate This Website Page-Flipping through Google Translate's Ability. *Advances in Social Science, Education and Humanities Research*. 10.2991/prasasti-18.2018.84. Available at: https://www.researchgate.net/publication/327898613_Google_Translate_This_Website_Page-Flipping_through_Google_Translate's_Ability [Accessed October 2nd, 2019].
- Cambridge Dictionary, 2020. *Cambridge Dictionary, English Dictionary, Translations Dictionary*. [Online]. Available at: <https://dictionary.cambridge.org/>. [Accessed April, 06th 2020].
- Catford, J.C. (1965). *A Linguistic Theory of Translation*. London: Oxford University Press.
- Dorland, W.A.N. (2010). *Kamus Kedokteran Dorland (31st ed)*. (R.N. Elseria, et al, Trans.). (A.A.Mahode, et al, Ed) Singapore: Elsevier Inc. (Original word published 2010).
- Gough, O. (2018). Google Translate: How to use Google Translate? How accurate is it? *EXPRESS*, 19 June. Available at: <https://www.express.co.uk/life-style/science-technology/976492/Google-Translate-how-to-use-Google-Translate-how-accurate>. [Accessed October 2nd, 2019].
- Heidary, J. (2009). Cultural and Linguistic Equivalence in Translation. Available at: <https://www.translationdirectory.com/articles/article1990.php>. [Accessed July 05th, 2020].
- House, J. (1997). *Translation Quality Assessment: A Model Revisited*. Tübingen: Narr.
- Jakobson, R. (1959/2000). On linguistics aspects of translation. In Venuti, L. (ed.) (2000). *The Translation Studies Reader*. London and New York: Routledge, 113-118.

- KBBI, 2020. *Kamus Besar Bahasa Indonesia (KBBI)*. [Online]. Available at: <https://kbbi.kemdikbud.go.id/>. [Accessed April, 06th 2020].
- Koller, W. (1979). *Einführung in die Übersetzungswissenschaft*. Heidelberg: Quelle and Meyer.
- Newmark, P. (1981). *Approaches to Translation*. Oxford and New York: Pergamon Press.
- Nida, E., & Taber, C.R. *The Theory and Practice of Translation*. Leiden: E.J.Brill, 1982.
- Pym, A. (2010). *Exploring Translation Theories*. London and New York: Routledge.
- Sheppard F. (2011). Medical writing in English: The problem with Google Translate. *Presse medicale* (Paris, France: 1983), 40(6), 565–566. <https://doi.org/10.1016/j.lpm.2011.02.024>
- Smeltzer, S.C. (2010). *Handbook for Brunner and Suddarth's Textbook of Medical-surgical Nursing (12th ed)*. Philadelphia: Lippincott Williams & Wilkins.
- Smeltzer, S.C. (2010). *Keperawatan Medikal-Bedah: Brunner & Suddarth*. (D.Yulianti, A.Kimin, & E.A. Mardella, Trans.). Philadelphia: Lippincott Williams & Wilkins. (Original work published 2010).
- Turovsky, B. (2016). Ten years of Google Translate. Available at: <https://www.blog.google/products/translate/ten-years-of-google-translate/>. [Accessed March 7th, 2020].
- Vinay, J.P. and Darbelnet, J. (1958). *Stylistique Comparée du Français et de l'Anglais: Méthode de Traduction*. Paris: Didier. (Transl. and ed. by Sager, J.C. and Hamel, M.J. (1995) as *Comparative Stylistics of French and English: A Methodology for Translation*. Amsterdam and Philadelphia: John Benjamins.)
- V.Le, Quoc., Schuster, M. 2016. A Neural Network for Machine Translation, at Production Scale. Available at: <https://ai.googleblog.com/2016/09/a-neural-network-for-machine.html>. [Accessed November 5th, 2019].