*sedikit, masing-masing dengan 6 dan fakta sebanyak 4. Dari hasil penelitian, diketahui bahwa penggunaan layanan Terjemahan Mesin Neural Multibahasa (MNMT) (Google Translate atau Yandex) belum cocok untuk terjemahan karena mengabaikan konteks dan alur cerita artikel, terutama dalam memilih terminologi dan gaya penulisan yang tepat. Intervensi dari ahli bahasa dan penerjemah profesional masih diperlukan untuk merevisi produk terjemahan MNMT dan mendapatkan hasil yang sesuai.*

*Kata Kunci: Parameter revisi, Google Translate, Penerjemahan, Yandex*

## INTRODUCTION

The need for English translation is increasing nowadays. This is closely related to the entry of the human age in the era of globalization. The growth of technology that has made all this possible has brought together more people from one part of the world to another (Rivera-Trigueros, 2021). Distance and time seem to have ceased to be such insignificant barriers. As a result, an effective way of communicating across cultures is needed. One way is to use a universal language such as English.

English then experienced a very high increase in exposure throughout human history. Its use as the official language in various contexts, such as education (Alhaq et al., 2020; Alhaq et al., 2021; Alhaq, 2022, Dewi et al., 2022); and various other fields, is the real example of this global phenomenon. Moreover, for anyone involved in those circles, English is a necessity that cannot be denied anymore. Learning English from scratch is not an easy thing, while professional and everyday demands require more practical solutions and a pragmatic approach (Lagarda et al., 2015; Way, 2018).

To solve the language barrier issue, the latest digital technology has become the solution (Rivera-Trigueros, 2021). With the help of computing technology and the internet network, an online-based language translation service, also known as Multilingual Neural Machine Translation (MNMT), was created.

MNMT is a machine-based translation service for natural languages supported by computational capabilities (Seljan et al., 2015; Tan et al., 2020). This service itself is expected to help humans in cross-language activities. With existing developments, it has emerged as a promising solution for cross-lingual communication. It utilizes deep learning techniques to learn from large amounts of parallel text data to generate natural and fluent translations (Johnson et al., 2017). In addition, its use is also seen to facilitate human communication activities in various fields (Castilho et al., 2017; Berard et al., 2020). Such an approach proves that language and technology can support each other, especially to support the needs of 'digital natives' (a term for those who are used to relying on technology in various aspects of life) (Alhaq et al., 2020; Alhaq et al., 2021; Alhaq, 2022)

One of the many Multilingual Neural Machine Translation (MNMT) services used today is Google Translate and Yandex (Adawiyah et al., 2023; Araújo et al., 2020; Cambedda et al., 2021; Firat et al., 2017; Karakanta et al., 2017; Laki & Yang, 2022; Rivera-Trigueros, 2021). Both are used in various natural language contexts in the world. Even so, they are mostly used for translating English, whether as the target or source language.

Producing a translation product that targets native languages (especially English) at the native level is a very complex endeavor. Understanding various phenomena of linguistic irregularities is required, which can usually be easily achieved through a manual translation process, it is important for translator to edit and revise the translation before sending the final translation to minimize mistranslation (Tan et al., 2020).

Although with the advancements in Multilingual Neural Machine Translation (MNMT) technology, mainstream services like Google Translate and Yandex have not managed to attain the level of translating natural languages, particularly English, at a native speaker's proficiency (Abdulaal, 2022; Rivera-Trigueros, 2021; Seljan et al., 2015). Machine Translation (MT) has a history dating back to the mid-20th century. It started with early attempts in the 1940s and 1950s, followed by rule-based systems in the 1960s-1980s. In the 1990s, statistical and example-based approaches emerged. Hybrid systems combining rules and statistics were explored in the 2000s. The advent of Neural Machine Translation (NMT) in the 2010s revolutionized the field, leading to significant improvements in translation quality. Human expertise remains crucial for accurate and natural translations. For this reason, further study is needed regarding the quality of translation products produced from these two mainstream services, especially in each specific natural language. This is expected to provide insightful information for academics and practitioners to understand the quality of translation products as well as the extent to which they can be used.

Findings from several studies have demonstrated the quality and capacity of Google Translate and Yandex in translating from/to English. A literature review study conducted by Dzulkahfi, Herry Sujaini, Tursina Tursina (2023) seeks to discover the capacity of Multilingual Neural Machine Translation (MNMT) services in translating English to Indonesian Language. This study’s results illustrate that many studies show errors and other deficiencies in translation products by Multilingual Neural Machine Translation (MNMT) services. Furthermore, the research conducted by Wahyuningsih (2021) analyzing translation errors done by the 5th semester students at STBA LIA

who were taking Indonesian-English Translation Workshop. This is different from the translation error research conducted by Silalahi, Rafli, and Rasyid (2018), which examines translation errors in translating science texts from English to Indonesian. They divide translation errors into three things, namely lexical errors, morphological errors, and syntactical errors. The findings of the study were that translation errors occurred due to students' lack of understanding of the text being translated and their lack of vocabulary. The results of their research show that using the manual translation method, which is already more widely used, is easier to do than relying on the method used by mainstream Multilingual Neural Machine Translation (MNMT) services.

The three previous studies examined the product and process of translation through Multilingual Neural Machine Translation (MNMT) services, especially Google Translate and Yandex. English is also the natural language base they emphasize. The current study also places a similar emphasis on English translation products produced through the two Multilingual Neural Machine Translation (MNMT) services. However, the contrasting differences between this study and those previous studies are: (a) the theoretical view used, in which the data analysis in this study will be adapting the framework proposed by Mossop (2014); and (b) the natural language used, in which the product being analyzed is the result of a translation from English to Bahasa Indonesia. In summary, the previous studies investigated MNMT services and translation products, emphasizing English, while the current study also focuses on MNMT services' English translations but with a different theoretical framework and specifically examines translations from English to Bahasa Indonesia.

This research was conducted to analyze revision parameter in the BBC article *The Norwegian library with unreadable books* by Richard Fisher, with a total of 2,577 words, published on July 1st, 2022. This comparative analysis effort is based on the increasing need for a follow-up study on the quality of translation produced from these two mainstream services, especially in English-Indonesia cases. That way, people can better understand when and under what circumstances they may rely on those mainstream Multilingual Neural Machine Translation (MNMT) services. This research supports previous research findings, presents a further picture of the quality of Indonesian translation products as the target language, and provides an overview of the latest developments in Google Translate and Yandex services. In this article there are English and Indonesian language version which can be compared and analyze for further study. Revision parameters will be compared as well by comparing the translation.

The parameters used in this paper are accuracy, completeness, logic, smoothness, tailoring, sub-language, idiom, mechanics and these parameters were formulated based on Mossop's (2014) guidelines for revision. Accuracy is the difference in conveyed message between the source and target texts. Completeness will be fulfilled when the translator removes the meaning and message from the source text and fixes it so the reader can understand it. Logic refers to the content of the text, both the source and target text, that is reasonable, not made up, does not contradict one idea with another, and does not contain logical errors. Smoothness it is synonymous with cohesion, which focuses on the flow of ideas. For example, do the ideas flow smoothly; are the connections between sentences well connected. Tailoring is equivalence

between the context of understanding possessed by the reader and that of the source text. The used terms, vocabularies, and tones of the source text must be replicated properly while considering the demographics of readers who will consume the translation product. Sub-language as an effort to detail a language's specific aspects and is generally not found in other languages. This is a multi-layered characteristic because its existence appears not only at the linguistic level but also at deeper layers, such as genre, terminology, etc. Idiom is a combination of words that are idiomatic. The word "manuscript" is translated into "manuskrip" from the preceding sentence. Mechanics is a translation error parameter that occurs when the translation machine does not follow grammar rules or misinterprets the meaning of source text phrases/sentences.

This study compares translation products using Mossop's (2014) revision parameters. This parameter can be used to see the existence of various errors that arise from the translation product. Mossop formulates these parameter points to facilitate revision efforts usually carried out by translators. It must be emphasized that this parameter is designed as a training model and a basic reference. Practical use to support professional needs is considered insufficient when using this parameter. Translators and experts can use this parameter as a reference in determining the quality of translation theoretically or as material for academic discussion.

There are twelve revision parameter points formulated by Mossop's (2014), which in this paper will be narrowed down to focus on nine parameters as the following explanations:

1. Accuracy

In translation, accuracy is something that the translator must achieve for the reader to fully comprehend the target text. One example of this error is the occurrence of the phrase “manuscripts”, which must be translated correctly into Bahasa Indonesia. Manuscripts in the source text is translated to Bahasa Indonesia as “*naskah*” by Indonesian BBC Version. According to Mossop (2014), such errors are included in the accuracy parameter because Google Translate and Yandex do not understand the meaning of source text phrases or sentences (see Table 2).

2. Tailoring

Such an error appeared in the phrase “find out”, translated into Bahasa Indonesia by Google translate as “*mengetahuinya*”, while Yandex translated it into “*mencari tahu*”. The researcher believes this is inappropriate, where a more appropriate context is to use the phrase “*mencari jawabannya*”. This phenomenon also aligns with Mossop (2014), who said there are distinct difficulties in translating phrases (see Table 3).

3. Sub-language

This can be seen from the error translation of the phrase ‘watch a ceremony’, which was translated by Google Translate as “*menonton upacara*”, and Yandex “*menyaksikan upacara*”. This contrasts the translation produced by the researcher’s manual efforts, where “*menyaksikan sebuah acara*” is more suitable. Mossop (2014) has discussed this matter that requires a certain competency in translating a phrase consisting of a

predicate and a compliment. The two Multilingual Neural Machine Translation (MNMT) services do not own this competency (see Table 4).

4. Completeness

The author corrected the meaning of "arrows on the ground made from sprinkled wood shavings" in the example, translated as "*serutan kayu berbentuk anak panah di tanah*" (see Table 5).

5. Smoothness

The following sentence is incoherent and does not flow smoothly: "Each tree" should be translated as "*Tinggi setiap pohon*", and 'the paper for a special collection of books' as "*menyediakan kertas bagi buku-buku koleksi khusus*". In this case, Google Translate and Yandex fail to understand the meaning and logic. Moreover, they also cannot match the meaning of "each tree" in the source text, which in Bahasa Indonesia is "*setiap pohon" atau "masing-masing pohon*" (see Table 6).

6. Logic

Google Translate and Yandex misunderstood the logic referred to in the source text in the preceding sentence. The "ceremony" should be translated as "*upacara peresmian*" (see Table 7).

7. Idiom

Aside from this word being incorrectly translated (due to an error in the accuracy parameter), Google Translate and Yandex also make idiomatic errors. As a result, the word manuscript should be translated as "*naskah*" (see Table 8).

8. Mechanic

The translation error parameter emerges when the translator fails to adhere to the proper rules of grammar, pronunciation, writing, punctuation, style, and usage of the original source text. The source text was incorrectly translated by Google Translate and Yandex. The word 'I' should be written as *"saya"* and should not be capitalized. (see Table 9).

9. Facts

Although it is not a translator's primary responsibility to check a text for factual, conceptual, and mathematical errors, such errors can have a significant impact on the communication of the text. Readers who are experts in the subject matter will be able to spot these errors immediately, and they can undermine the credibility of the translator and the text itself. (see Table 10).

All of which mentioned above are further categorized into four categories: (1) Points related to problems of meaning transfer consist of accuracy and completeness; (2) Points related to problems of content including logic and facts; (3) Points related to problems of language and style contain smoothness, tailoring, sub-language, idioms,

and mechanics; as well as, (4) points related to presentation such as layout, typography, and organization.

Mossop (2014) formulates the revised parameters based on the assumption that a good translation product must be error-free at those 12 parameters, starting with the proper transfer of meaning from the source language to the target language. In this context, the translation product must be able to reflect the message that is trying to be conveyed to the source text (accuracy) without leaving the various elements in it (completeness). Furthermore, Mossop (2014) stated that content must also convey a context that makes sense (logic) and does not conflict with existing facts. Mossop (2014) emphasizes that to achieve a translation product with the same linguistic appeal and style as the source text, it is crucial to ensure smoothness in language presentation, employ appropriate tailoring methods for specific niches and genres (sub-languages), preserve equivalent idioms, and carefully consider structural aspects as well as grammatical appropriateness (mechanics). To achieve the full characteristics, minor points such as typing and layout techniques, the types and specifications of the fonts (typography), and the accuracy of the formatting order (organization) must also be synchronized.

Through these 12 parameters, Mossop (2014) created a checklist that can be used as a reference in determining the revision of a translation product. When the product resulting from the translation encounters an error and cannot fulfil all of them, the product needs a revision. This can be done by the same or a different translator. He also emphasized that the degree of need for revision does not have to be so sensitive: not every translation product has to pass all of the points. All the points must be fulfilled

in a more urgent and formal context; however, errors can still be considered reasonable in a looser and less demanding context. It shows that those points are more likely to be a guide rather than a must-be-fulfilled mandate.

## RESEARCH METHOD

This study uses a descriptive qualitative approach in examining the results of documenting translation products from two mainstream Multilingual Neural Machine Translation (MNMT) services. It is hoped that through this design, the objective of this research can be achieved: to analyze the errors that occur in Google Translate and Yandex translation products comparatively in the translation of BBC article *the Norwegian library with unreadable books.* The Indonesian version is considered as the translation regardless the process it being translated.

This study uses primary data, i.e., collected/generated by the researcher's efforts, without going through any intermediaries (Creswell, 2018). In this study, the English source text was an article from the BBC entitled *The Norwegian library with unreadable books* by Richard Fisher, published on July 1st, 2022 and the translation by BBC Indonesia with the tittle *Buku-buku yang ditulis dan disimpan di 'perpustakaan masa depan' untuk dibaca 100 tahun ke depan* (https://www.bbc.com/indonesia/vert-fut-64207851). The number of words in this article is 2,577 words. Primary data in the form of translation products were generated through documentation using the Multilingual Neural Machine Translation (MNMT) of Google Translate and Yandex services which these two are mainstream Multilingual Neural Machine Translation (MNMT) services.