Translation Quality Differences Between Students and Online Machine Translation

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Abstract

Translation has, today, become a vital activity that cannot be separated from students in their learning process and also in other aspects of life. In translating, students often rely on Machine Translation (MT) as it is time and energy efficient. However, people have come to doubt the translation quality of MT. Meanwhile, the accuracy of information could only be achieved when translation results fulfill certain criteria. Therefore, this study aims to reveal the differences in translation quality from English to Indonesian produced by students and MT. To this end, the research applies the qualitative comparative analysis to obtain the different translation results of students and MT. This study is conducted at a public university in Serang–Banten, with the participation of 5 students. Data obtained from the translation of students and MTs are then analyzed by applying Nababan's theory (2012). The analysis succinctly reveals that students obtain higher average scores than MT in three aspects, namely accuracy, acceptability, and readability. In the fourth aspect, the analysis uncovers that both students and MT actually produce similar errors, namely in word choice and sentence structure. Finally, this study suggests that MT should be used to complement students' translation.

Keywords:

translation, translation quality, Machine Translation, Google Translate, and Bing Microsoft Translator.

Abstrak

Penerjemahan dewasa ini telah menjadi kegiatan fundamental yang tidak terpisahkan dari proses pembelajaran mahasiswa dan aspek kehidupan lainnya. Dalam menerjemahkan, mahasiswa seringkali mengandalkan mesin penerjemah online (MP) karena efisiensi waktu dan tenaga. Namun kualitas hasil MP masih sangat diragukan keakuratannya. Sementara untuk mendapatkan infomasi yang akurat hasil terjemahan harus memenuhi beberapa kriteria. Oleh karena itu, penelitian ini bertujuan untuk mendeskripsikan perbedaan kualitas terjemahan dari bahasa Inggris ke dalam bahasa Indonesia yang dihasilkan mahasiswa dan mesin penerjemah. Untuk itu, penelitian ini menggunakan metode penelitian kualitatif secara komparatif untuk mencari perbedaan antara hasil terjemahan mahasiswa dan MP. Penelitian ini dilakukan di sebuah perguruan tinggi negeri di Serang-Banten dengan melibatkan 5 mahasiswa dan menggunakan data yang

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dikumpulkan dari hasil terjemahan mahasiswa dan MP. Penelitian ini menggunakan Teori dari Nababan (2012) untuk menganalisa data. Hasil analisis menunjukkan bahwa mahasiswa memperoleh nilai rata-rata yang lebih baik dari MP dalam tiga aspek, yaitu keakuratan, keberterimaan, dan keterbacaan. Untuk aspek keempat, penelitian memperlihatkan baik mahasiswa maupun MP ternyata menghasilan kesalahan yang sama, yaitu dalam pemilihan kata (diksi) dan struktur kalimat. Akhirnya, penelitian ini juga menyarankan bahwa MP seharusnya digunakan sebagai pelengkap penerjemahan mahasiswa.

Kata Kunci:

penerjemahan, kualitas penerjemahan, Mesin Penerjemah, Google Translate, dan Bing Microsoft Translator.

1. INTRODUCTION

Translation constitutes a vital part of communication. In a changing world characterized by rapid developments in technology, demands for translation tools have risen significantly due to their efficient use. The use of online translation machines (MT) has made it easier for people to overcome the language barrier and to enter a borderless world, since it obviates them from having to learn foreign languages.

Online machine translation also makes an invaluable contribution to students, who tend to use it more often both inside and outside the classroom as a learning tool (Medvedev, 2016, p.182). MT can also help teachers to effectively use the tool as an introductory and practice means for students to enrich their foreign language vocabularies (Shamor, 2016). It has been proven that the use of online translation plays a crucial role in many aspects of life.

Translation has always been connected with the notion of quality and there is nothing more important than quality in a translation work. Quality is vital because if messages were ever incorrectly translated, they would lead to a multitude of problems and miscommunications. Therefore, it is always critical that any translation services be able to convey the original meaning from the source text to the target text.

Hence, as users of translation machines, we should choose with utmost care the most accurate online translation machine possible.

As college students are still actively learning and using English in their daily lives, they often rely on text translation machines to get the easiest and fastest results within only seconds. Students may possibly have a number of reasons for taking that shortcut. For example, they may want to get instant and automatic translation results, they may have limited knowledge of English, or they may simply have no confidence in exhibiting their own translations.

Even though the internet abounds with thousands of online machine translation tools, not all of them produce the same results in translating words. The technology, features, and algorithm that each of the translator tool utilizes would unavoidably yield different results. Therefore, for this research, the researcher has chosen the two best online machine translation tools that are equipped with the most advanced features in 2020 and produce the best translation results. According to Lifewire, Bestwebsiteto, Rapidapi, and Makeusedof sites, they are namely Google Translation and Bing Microsoft Translation.

Several studies related to the quality assessment of human and online machine translation have already been conducted, which used different languages and machine translations. The first was a study by Kooponen (2016) that demonstrated how an error analysis of machine translation identified different error types. This study used three English text passages translated to Finnish by using two different types of machine translation systems, which were then compared to human translations. The second research was conducted by Freitas and Liu in 2017, and it was aimed at exploring the differences between human and machine translation by using the Chinese language. They used two methods to conduct the research. They were the superficial presence and position of words in the human and machine-translated sentences to establish quantitative differences, and one using the underlying structure of the sentences. In both methods, they used

parallel translated texts from the GALE corpus obtained through the Linguistics Data Consortium. They obtained results that showed many errors were made in the presence of nouns, verbs, adjectives, and the ordering of determinants. The last of the researches was by Halimah (2018) entitled "Comparison of Human Translation with Google Translation of Imperative Sentences in Procedures Text". It was aimed at analyzing the similarity between human and machine translation in the translation of procedural texts.

The previous studies showed the researches were conducted by mostly using other languages but Indonesian, and it was found that they rarely analyzed quality assessment differences between student and machine translation. It is therefore opportune to make an analytical study of quality assessment differences between student and machine translation. Moreover, this gap could be filled by a new research that utilizes different variables as proposed by this research. Therefore, this study attempts to conduct a research entitled "Translation Quality Differences Between Students and Online Machine Translation"

The research aims to find out the translation quality assessments, by applying the theory proposed by Nababan (2012). This translation quality assessment is made on the basis of three parameters:

1. **Accuracy**

   How the text is translated correctly without distortion of meaning.

2. **Acceptability**

   How the translated text correctly reflects the target culture, norms, and linguistics rules.

3. **Readability**

   How a text is easily comprehended.

2. METHOD

Data were analyzed using content analysis term to text in the form of procedure. Data analysis involved two categories of comparison as defined, namely Google Translate and Bing Microsoft Translator engines representing online machine translation and 5 university students for human translation. The data source for this study was an abstract entitled "Exploring differences between machine translation and human translation" and a narrative text entitled "The dull king who wanted to be a king".

This research used content analysis as a research design to analyze the data from the documents. The content analysis used texts as the main sources of research to collect the data in the form of text, written or oral from various sources such as books, movies, the web, and interviews (Krippendorf, 2004, p. 150). The research followed a procedure consisting of the following four steps.

1. Preparation

Before undertaking the research, the researcher asked permission to the respondents of this research, the five students of Sultan Ageng Tirtayasa University, by asking them to read and fill out the consent form.

2. Collecting the data

In collecting the data, the researcher asked the students to do the translation and enter the text into Online translation machines (Google Translate and Bing Microsoft Translator).

3. Analyzing the data

To analyse the data, the researcher used two raters and analysed the text sentence by sentence through the use of the translation quality assessment theory formulated by Nababan (2012).

4. Drawing the conclusion

The research drew its conclusion on the basis of its findings and discussion on the research data.

3. RESULTS

The data analysis revealed that students and MT obtained differing translation quality scores, where the highest possible value was 4. These scores were then classified into three categories as shown in the following Table. First, in the aspect of accuracy, students achieved an average score of 2.07, whereas the average score obtained by machine translation was 1.85. Second, in the aspect of acceptability, students recorded a score of 1.97, compared to a score of 1.6 by MT. Third, in the aspect of readability, students achieved a score of 1.8, compared to a score of 1.5 by MT.

Translation Quality Categorization		Students	Online Machines Translation
Accuracy	Accurate	10%	5%
	Less Accurate	62%	45%
	Not Accurate	28%	50%
Acceptability	Acceptable	10%	0%
	Less Acceptable	70%	56%
	Not Acceptable	30%	34%
Readability	Acceptable	10%	0%
	Less Acceptable	64%	45%
	Not Acceptable[SJ1]	10%	55%

When examined more closely, both MTs and students committed common errors that were frequently found in their translation works, such as in word choice and sentence structure. Both students and online machine translation apparently encountered difficulties in choosing the most appropriate words to suit the context in accordance with the source text. They mostly used words with similar meaning but inferred different contexts which resulted in less accuracy, acceptability, and readability. However, and despite making some errors, students produced quite better translations than MTs since they had the capability of being able to choose the words with the closest meaning related to the context of the text.

4. CONCLUSION

The translation quality analysis presented in this paper reveals quite interesting results. While students (humans) produced better translation quality compared to online machine translation tools, both humans and MT actually also made common errors. Nevertheless, the scores obtained by the students were below those expected by the researcher as clearly demonstrated by this study.

The analysis conducted demonstrate that this research could be summed up into four points. Overall, in all first three points – for accuracy, acceptability, and readability – the students produced higher translation scores than both online machine translation tools. In the fourth point, both MTs and students made common errors that were frequently found in their translation works such as in word choices and sentence structure.

Moreover, both students and online machine translation seemed to face problems when having to determine words that would best capture the nuances conveyed in the original text. This inability to come up with the most apt words to portray the contexts causes both to produce less accuracy, acceptability, and readability. Albeit

committing some errors, the students fared quite better translation results than MT since they can still manage to find words with the closest meaning in relation to the context.

Finally, it was revealed that MT could not match the students' work level despite being able to complete the translation work at a much faster pace. MT seemed not to have the sense to understand the context of the text translated and might rather be constrained by the predetermined rules set up by the programmer. Therefore, this research reveals that MTs' translation work cannot be relied in translating English texts to Indonesian without post-editing by humans. However, MTs' translation work could still be used easily and quickly for learning or other purposes. Finally, this study suggests that MT should be used to complement students' translation.

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