THE TRANSLATION RESULTS OF CHILDREN BILINGUAL STORY BOOK BETWEEN HUMAN AND MACHINE TRANSLATION: A COMPARATIVE MODEL

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Abstract

The purpose of this current study is to analyze the differences of translation results of children story books between human and machine translation, especially in terms of accuracy, readability, and understandability. The method used in this work was qualitative content analysis. The children story book entitled *Cindelas* served as a source of data. The original book was written in Indonesian Language, and it was published in 2001 by Gramedia Widiasarana Indonesia. The result shows that both human and machine translations deliver different lexical, grammatical, semantic, and stylistic versions in their translation results. These differences occur since the machine translation has not been able to well-recognize the context of situation and culture. This is a weakness and limitation of machine translation. Such machines cannot replace human translation. Nevertheless, the machine can serve as a pre-translation to help human translation work faster and better in producing more accurate, readable, and understandable versions.

Keywords : human and machine translation, story book

INTRODUCTION

Like it or not, Indonesia has a lower illiteracy rate number, but still the people have poor reading habits. This is a shared responsibility to encourage people, especially children, to form their reading habits.

As children are now becoming the target of the literacy movement, some publishers distribute story-books which hopefully can attract children to read. They also have several story-books that are bilingual. As a proverb says 'kill two birds with one stone,' while the children are reading the story books, they can also learn

English. The bilingual story-book is written using English as the source language (SL) and Indonesian Language as the target language (TL), or vice versa. The books are also printed colorfully so that children are interested in reading. A child's reading attention can be named as the features of the person or of the text; attention relays to text understanding and other essential reading outcomes.

Commonly, children read story books about other countries' legend which are written in English and translated in Indonesian Language.

However, this actually happened the other way in a children's story book entitled *Cindelas*. The book tells about a legend in Indonesia which is translated to English. In other words, the book serves Indonesian Language as the source language and English as the target language.

Language is a key to knowing the culture of other countries. Then, translation serves as a tool to bridge the understanding among cultures and countries (Baihaqi, 2017); translation also becomes a powerful media in bridging the relation in every area of knowledge (Gustini & Baihaqi, 2021). Indonesia needs to maintain its culture among generations, and also to introduce it to other countries. For this objective, as previously studied by Yesi, Juniardi, & Baihaqi (2021), the literary works included bilingual story books play a very significant role.

Furthermore, the development of information and technology also affects translation work over time. The information and technology can process, present, and share information whether in the audio, visual, audio visual, or even multimedia. Every language also can be learned with information and technology by the help of machine translation.

Translation is a very human activity. However, machine translation such as Google translate can help the works of human translation. The machine can serve human translation to work faster even though the machine cannot replace the human translation for its limitation. The issue can be observed from several previous works by Baihaqi & Mulyana (2021); Lumeras & Way (2017); Suprato (2014); and Zagood, Al-Nuaimi, & Al-Blooshi (2021). Their works proved that human translators have a range of skills that are impossible to replicate by machine, nevertheless, the machine may improve the translators' productivity and the result. Considering the sources of data investigated in previous studies are different, and as an effort to avail further references, this work is concerned in analyzing the differences between the results of human and machine translations in children's story books entitled *Cindelas*. Therefore, the problem of this current work is as follows: how are the differences of translation results of children story book between human and machine translation?

THEORETICAL REVIEW

The Bilingual Books

The bilingual books, or dual language books, are presented across genres and ages, including classics and picturebooks in fiction and nonfiction. Since the books include translations from one language to another, it points out that the quality of translation is an essential consideration. Literal translations may not preserve the reliability of a story; the ways that idioms, humor, culture, and syntax are expressed across languages need special attention so that the message of the story is delivered as naturally and accurately as possible (Hadaway & Young, 2014). Bilingual texts can serve students to culturally related reading that avail opportunities for students to see themselves reflected in what they read, to see into other cultures that may be quite different from their own, and to face into the place of others in a remote experience with books set in new places and with new cultures.

Furthermore, Botelho & Rudman (2009) states that mirrors, windows, and doors framework is at the heart of teaching in ways that demonstrate respect and acceptance, while providing rich cultural experiences through books. The bilingual books are further classified to full-text

translation, single-language translation, and embedded text.

In full-text translations, the whole story is presented in two languages. Both languages are positioned on one page, or opposite pages, often with a graphic to separate the two sides. Sometimes a different color or script is used to call response to the difference in languages. Some issues have been raised about the placement of two languages, and the implication for favoring one language over another language. For instance, which language comes at the first page?

If the location (left-right, top-bottom) of the two written languages is different, which direction will the book use? These books are meant to be read in both languages, page by page, either by one reader who is able to read both languages, or by two readers, each fluent in one of the languages (Sneddon, 2009). The bilingual books are available on paper in over 50 different languages, and more are available digitally.

The single-language translations, moreover, are published completely in one language, with entire book translations into other languages. The publication of translations occurs purposefully and simultaneously, and

other books are published first in one language and translated later.

The last, embedded text denotes the books that convey a story in one language, with some words and phrases from the second language added. When the second language words are added, they are presented alongside their first language counterpart. Books that are embedded with second language text can depend on pictures and context of the story as it helps for coping between two languages.

There is no particular or broadly used definition of children's literature. It can be largely defined as anything that children read, or more definitely classified as fiction, non-fiction, poetry, or drama intended for and used by children and young people. The writers on children's literature view it as all books written for children, excluding comic, joke, cartoon, and non-fiction works.

The children-story commonly comes from easily imagined things. The story presented to children should be easily responded to and understood as emotional psychology. The content is the description of the children's life which is imaginative into the structure of children language. Gates, Steffel, & Molson (2003)

recommend fantasy Literature for children to read. Fantasy literature, like all other forms of myths, spring from the human need to comprehend from the struggle of good versus bad. Fantasy is imaginative fiction that lets people discover major life secrecies without being restricted by size, time, or space. They refer to children who never read imaginary stories due to challenging time considering the possibility of fantasy. They are attached to the literal, practical, and usual.

Furthermore, Sarumpaet (2010) described the features of literature for children as follows (1) language presentation, the languages used in story are simple sentences, easy grammatical structure, and diction is customised with children language acquisition; (2) cognition, children literature gives knowledge and introducing simple concept such as numbers, colours, and shapes; (3) psychology contained, psychological side of literature for children begins to be introduced are good moral values of life in simple way; and (4) social story, the story conveyed is around obedience to the parents, friendship, and relationship with teachers.

The English version of the books is not a genuine work, but a

translation from the original Indonesian version. The authors write the texts first in Indonesian Language, then, the texts are translated into English by a translator selected by the publisher. The facts for this claim are revealed in the quality of language utilization.

The aspects of language utilization which represent the translation quality of the English version of the bilingual books are associated with the structure as well as the surface of the version. There are three indicators that are established by the language utilization for the translation version, namely accuracy, acceptability, and readability. This work explains the first indicator in more detail than the other two. The accuracy and acceptability are already signified by the text structure and texture, whereas the readability must be evaluated from the judgment by the readers. Therefore, the accuracy and acceptability of the translation version are clarified through the selection and arrangement of discourse units demonstrating the text structure. They are also verified by the quality of grammatical construction of the clauses as well as the word and phrase selection of the text.

In the meantime, the readability is related to the level of difficulty through a text. Baker & Saldanha (2019) propose several factors influencing the readability of a text such as the numbers of uncommon words and technical terms as well as the complexity of the grammatical construction. Zakaluk & Samuels (1988) classified problems affecting the readability of a text into type, style, organization, and the way the text was presented. In other words, if the presentation is made easily and simply, the text will be easily understood. On the contrary, if it is complicated, then it is potentially difficult to read.

The style of a text is considered by manipulating the grammar and the lexicon. A text which covers many technical terms, abstractions, and nominalization tends to be more problematic to read than one which is composed by exploiting commonly used and familiar words for the target readers. The feature of grammatical constructions of clauses also matters. More complex grammatical construction means more difficult text to read. The other aspects which also effect the readability include the text structure and the topic arrangement.

The Machine Translation

Machine Translation or MT is the branch of computational linguistics which studies the use of computer software to translate text or speech from one source language to another (Suprato, 2014). On the basic level, MT performs simple replacement of words from one source language to another (Hatim and Mason, 2005). With the corpus technique, more complex translation can be carried to enable a better processing on the difference of linguistic typology and elements.

Google translate is the MT provided by Google Inc., to translate part of text or web page in one language to another. For some languages, users are requested to deliver another translation, such as for technical terms, which will be involved for updates in the next process. Google uses its own translation software. Google translator machine based on statistically based machine translation is capable of translating documents, text, or web pages into other languages. This facility is the result of research development conducted by Och (2006) who won the machine speed translator contest.

Since September 2008, Google translate has included Indonesian Language into its language option

which can be translated by searching machine. Now, Google has brought new features in Google Translate. One of its main features is direct translation without pressing the translation button.

Like other translator machines, the results of the translation process by Google still contain limitations and have not provided accurate translation results. The quality of the translation results from one language to another is not always the same. However, this translator engine is enough to help web users to understand a text or document globally. The shorter the text means the better the results.

RESEARCH METHOD

This study was a qualitative content analysis which focused on analysing the difference of translation results between human and machine translation. The method is considered as a comprehensive and systematic analysis of written materials (Leedy & Ormrod, 2001). To find the data, the writer investigated the source of a bilingual story book which has been published and sold in a bookstore. The bilingual story book entitled *Cindelas*. The book was written by AM. Titie and published by Gramedia Widiasarana Indonesia in 2001. The

book is well-received by the readers and widely used as a learning textbook. To analyze the data, the book was also translated by using Google translate. The result of Google translate was compared to the translation in the bilingual book. The researcher analyzed the differences

between the two translation results and presented discussion of its accuracy.

RESULT AND DISCUSSION

The following are the results of translation compared between human and machine translation.

Table 1. The Translation Results

Source Language (Indonesian Version)	Target Language (English version by Human Translation)	Target Language (English version by Machine Translation)
<i>Dahulu kala, di kerajaaan Jenggala, hiduplah seorang raja yang sangat terkenal. Raja mempunyai seorang permaisuri yg cantik jelita dan baik hati.</i>	Once upon a time, in the Jenggala Kingdom, lived a famous king named Raden Putra. The king <u>had</u> a beautiful and kind wife as his <u>queen</u> .	Long ago in the Kingdom of <u>Bengal</u> , there lived a very famous king named Raden Putra. The king <u>has</u> a beautiful and kind <u>empress</u> .
<i>Dia juga memiliki selir yang cantik. Selir sangat iri dan benci pada permaisuri. Ia bermaksud menyingkirkan Permaisuri. Ia merencanakan untuk berpura-pura sakit keras agar Raden Putra merasa sedih.</i>	He also had a beautiful <u>second wife</u> . The <u>second wife</u> was very jealous and <u>hate</u> the queen. She <u>wanted</u> to get rid of the queen. She planned to pretend that she was very ill so <u>Raden Putra</u> would be sad.	He also had a beautiful <u>concubine</u> . The <u>concubine</u> was very jealous and <u>hated</u> the empress. She <u>intended</u> to get rid of the empress. She planned to pretend to be ill so that the <u>son raden</u> was sad.
<i>Selir itu memanggil seorang dukun. Dia menyuruh dukun itu menghadap Raja dan berbohong kepadanya. Dukun itu berkata kepada sang Raja, "Selir Paduka sakit keras karena Permaisuri. Beliau iri karena Paduka lebih menyayangi selir Paduka."</i>	The second wife summoned a <u>medicine man</u> . She told the medicine man to go to the King and tell him a lie. The medicine man said to the King, "Your second wife is very ill because of the queen. The queen is jealous because your <u>highness</u> loves your second wife dearly."	The concubine called a <u>shaman</u> . He told the shaman to face the king and tell the king to lie. The shaman said to the King, : "your concubine was very ill because of the empress. She is jealous because your majesty loves your <u>majesty</u> ."

Source Language (Indonesian Version)	Target Language (English version by Human Translation)	Target Language (English version by Machine Translation)
<i>Raden Putra sangat marah. Dia memanggil Patih menyuruhnya membawa permaisuri ke hutan untuk di bunuh, walaupun dia tahu permaisuri sedang mengandung.</i>	Raden Putra was very angry. He <u>summoned</u> the <u>Vice-Regent</u> and ordered him to take the queen to the <u>jungle</u> to be killed even though he knew that the queen was pregnant.	<u>Raden son</u> is very angry, he <u>called</u> the <u>governor</u> to bring the empress into the <u>forest</u> to be killed even though he knew the empress was pregnant.
<i>Untunglah patih orang yang bijaksana. Ia tidak percaya bahwa permaisuri bias berbuat kejahatan itu.</i>	Luckily, the vice-regent was a wise <u>man</u> . He did not believe that the queen could do such an <u>evil</u> thing.	Luckily patih wise <u>person</u> , he did not believe that the empress could do such <u>bad</u> thing.
<i>Ia membawa Permaisuri ke tengah hutan, tetapi tidak membunuhnya. Ia membuatkan sebuah gubuk kecil untuk permaisuri.</i>	He took the queen deep into the <u>jungle</u> , but did not kill her, He made a small hut for the queen.	He took the empress to the <u>woods</u> , but did not kill her. He made a small hut for the empress.
<i>"Terima kasih sahabatku. Anda orang yang bijaksana. Aku akan melahirkan seorang bayi laki-laki. Aku akan mengasuh dan membesarkannya di hutan ini. Semoga kelak ia dapat bertemu dengan ayahnya."</i>	"Thank you very much, my <u>dear friend</u> . You are a wise man. I will give birth to a baby boy. I will <u>take care of</u> him and <u>bring</u> him up in this jungle. I hope someday he will meet his father."	"Thank you my <u>friend</u> , you are a wise person. I will give a birth to a baby boy. I will <u>nurture</u> and <u>raised</u> it in this forest, hopefully he can meet his father."

From the results of the translation above, it is clear that there are several things that need attention to the differences in translation. The first is *selir*. The term is translated 'second wife' by a human translator and 'concubine' by a machine. The translator may choose the word 'second wife' as long as the readers are children who will understand 'second wife' easily instead of 'concubine'. Likewise, the proper name of *Raden Putra* is translated to 'son raden' by the machine. In fact,

Raden Putra is a common name. For the machine translation, it is automatically translated into English standard 'son.'

The second is the selection of words relating to language style, as in the designation of *Paduka*. The machine translates 'Majesty,' while in the book it is 'Highness.' For the human translator, the 'Highness' has found literary value. Also, the word *menyuruh* is translated 'called' by the machine, while the human translator translated it to 'summoned.'

Third, for the use of tenses, sometimes the machine produces inappropriate tenses, especially in sentences where there is no time for occurrence. English is very concerned about tenses that describe the understanding of the timing of an event. On 'the king has a beautiful and kind empress,' the sentence uses simple present 'has' which is not equivalent to the understanding that the story has passed.

The next is the consistency in translating the word *hutan*. The machine loses its consistency by translating *hutan* with two different word choices, that are 'woods' and 'forest.' This has not happened to the human translator since he translated consistently to 'jungle.'

Lastly, the style of language used by the machine is very literal; the language style of the translator can be adjusted to the target audience. The machine does not know the target reader. The word *ratu*, for example, the machine translates it to 'empress,' while in the book it is 'queen.' Indonesian children are more familiar with the word 'queen' instead of 'empress.'

As previously discussed by Baihaqi & Mulyana (2021); Lumeras, & Way (2017); Suprato (2014); and

Zagood, Al-Nuaimi, & Al-Blooshi (2021) regarding the role and relationship of human and machine translation, this recent work also proves that human translators have skills that impossible to reproduce by machine. This is a weakness or limitation of machine translation, especially in translating the versions that are closely related to the cultural terms. Both human and machine translations deliver different lexical, grammatical, semantic, and stylistic versions. However, the machine may improve the human translators' results since it can serve as a pre-translation to help translators work faster.

CONCLUSION

This work concludes that a machine translator is a tool that helps translators to do the translation quickly, but not a tool to replace a human translator. The result shows that both human and machine translations deliver different lexical, grammatical, semantic, and stylistic versions in their translation results. These differences occur since the machine translation has not been able to well-recognize the context of situation and culture. This is a weakness or limitation of machine translation.

Such a machine cannot substitute the human translation. Nevertheless, the machine can serve as a pre-translation to help human translation work faster and better to produce accurate, readable, and understandable translation results. Therefore, the machine can remind the human translators, and it can carry out the translation function with the help of technology.

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